

The Policy and Regulatory Environment for Organic Farming in Europe

**Organic Farming in Europe:
Economics and Policy**
Volume 1

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The individual contributions in this publication remain the responsibility of the authors.

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Executive Summary

This report is the first result of a larger project that aims to provide an assessment of the impact of current EU agricultural and environmental policies on the organic sector, to evaluate the contribution of organic farming to policy goals, and to assess the impact of possible future policies with respect to organic farming.

The main objective of this report is to clarify the policy and regulatory environment within which organic farming currently operates in all 15 EU member states and in three non-EU countries (Norway, Switzerland and the Czech Republic). The report reviews European and national regulations and their implementation, focusing on agri-environmental and mainstream agricultural support measures, marketing and regional development programmes, certification systems, and support in the form of advice, training and research. In 1996, total public expenditure on organic farming under these measures, from EU, national and regional sources, was in excess of 300 MECU.

The review is based on data collected by national experts in each country using information from national agricultural administrations, organic certification bodies and other published and unpublished material, as well as data from the European Commission.

The authors hope that such a comparative review of policies to support organic farming will help to highlight the potential strength and weaknesses of the various measures, and thus stimulate the debate on the direction in which future policies might be developed.

Organic farming support under agri-environmental and extensification programmes

Direct support to organic and converting producers is seen by some governments as a means to meet increasing consumer demand as well as transfer income to farmers for environmental and other benefits.

Denmark was the first country to introduce a national support programme in 1987, Germany used the framework of the EU extensification programme (EC Reg. 4115/88) to introduce a support for conversion to organic farming. In 1996, continuing support under this programme amounted to nearly 60 MECU. By 1996, all EU member states, with the exception of Luxembourg, had introduced policies to support organic farming within the agri-environment programme (EC Reg. 2078/92). Support for conversion to and continuing organic production amounted to nearly 190 MECU in 1996, increasing to more than 260 MECU in 1997.

Despite the common framework of this programme and the regulatory base provided by EC Reg. 2092/91, the payment rates, eligibility and other conditions of the schemes in each country vary widely, particularly

with regard to livestock production. Several countries impose environmental requirements in addition to those specified in EC Reg. 2092/91, and in two EU countries (IE and FI) participation in the main agri-environment protection scheme is compulsory. Most countries offer payments for continuing organic production at a lower rate than for conversion, but many exclude payments towards permanent grassland.

Uptake varies between countries and to some extent this can be linked to levels of payment, but this needs further investigation as does the impact of such policies on market development. In seven countries payment rates have been increased since the introduction to encourage higher uptake, whereas in other countries higher than expected uptake of the schemes led to reductions in the rates paid.

Impacts of mainstream CAP Reform measures on organic farming

In most countries, the mainstream measures are seen as beneficial, at least for arable producers. Set-aside in particular is seen to have potential to support the fertility-building phase of organic rotations during conversion and on arable farms with little or no livestock.

Only in a few cases have significant adverse impacts of the mainstream measures on organic farmers been identified. In some cases, special provisions have been made to reduce these.

The loss of eligibility for livestock premiums as a result of reduced stocking rates following conversion is seen as potentially problematic, but this can be mitigated by extensification payments and quota sales or leasing where applicable.

Several countries have made use of investment aids and national/regional measures to provide additional assistance, including special derogations for organic producers.

The potential impacts of changes to the mainstream support measures as a consequence of Agenda 2000 are yet to be evaluated in subsequent phases of this research project.

Policy support for marketing and processing

EU support for marketing and processing activities in the organic sector has been identified in at least nine countries with public expenditure in 1996 totalling between 5 and 10 MECU. In Denmark and Germany, specific programmes to support organic farming projects exist and the organic sector has received a relatively high proportion of funding through general marketing schemes in Austria and Great Britain.

Three German *Bundesländer*, have budgeted for organic farming projects within EC Reg. 866/90 programmes. Several countries have Action Plans for the development of the organic sector which include support for market development and three countries have budgeted for marketing

activities in organic farming under regional development programmes and

Support for small-scale projects has been particularly successful in Germany in helping develop regional marketing networks, overcoming the problems of a small organic sector and encourage the entry of new operators.

The Danish example suggests that a more market-oriented approach to organic aid schemes can support the development of a diverse marketing structure, provide help in entering into mainstream marketing, and help overcome problems such as discontinuity of supply and lack of widespread distribution.

The apparent limited uptake by the organic sector of funding in some countries can partly be explained by possible gaps in the data, as most ministries do not distinguish between organic and non-organic projects.

Further restrictive eligibility requirements have been identified as a potential barrier to uptake of some schemes, suggesting the need to take the specific requirements of the organic sector, such reduced turnover and smaller number of members for organic producer groups, into account when designing support programmes.

Regional and rural development policies

Organic farming has in some cases been an integral part of regional development strategies. It can help to meet many of the goals of such programmes, combining a sustainable model of agriculture with the prospect of development of local economies through the encouragement of local production, processing and consumption patterns. Experiences in Ireland suggest that grant aid can have a significant impact on the regional development of the organic sector.

Organic farming projects have received support under Objectives 5b and 1 of the EU Structural Funds in nine countries for a variety of activities, including direct marketing, promotion of regional products, research, technical advice and training. In as many countries, organic projects have received funding through the EU LEADER programme. Total public expenditure in the EU in 1996 has been estimated at nearly 10 MECU. This excludes LEADER funded projects in the organic sector.

Regional development initiatives outside the framework of EU policy, with budgetary provision for organic farming, exist in Switzerland, and in certain regions of France and Germany. Experiences with limited uptake of the scheme in the Rhône-Alpes region of France suggest the need to take the particular situation of the organic sector, often characterised by limited range of products and discontinuity of supply, into account when designing regional support programmes.

Production standards, inspection and certification systems

Prior to the introduction of EC Reg. 2092/91, definitions for organic farming existed in all study countries except Greece. Six EU countries had a national legal definition and eleven EU countries had long-established standards set by private and voluntary sector bodies.

National legislation for organic crop production was replaced once EC Reg. 2092/91 was implemented. In most countries previous national definitions are still in operation, mainly because of the lack of standards for livestock production in the regulation.

Standards defining organic production have largely been developed by the private sector (mostly by producer organisations). They are varied and adapted to the conditions, resources and requirements of specific countries and regions.

Producer involvement in the development of organic standards can be positive as consumer and producer confidence in the Danish State regulation indicates. The Danish experience also suggests that the development of common logos can improve the consumer recognition of organic produce.

Most EU countries have designated one government body (usually within the Ministries of Agriculture) as the Competent Authority to oversee the inspection and certification of organic farms under EC Reg. 2092/91. The other countries have appointed two or three bodies each responsible for different operational areas and in Austria, Germany and Spain Competent Authorities are designated at regional level.

Licensed private sector bodies, partly operating their own standards, carry out the actual inspection and certification of organic producers in most countries. Only in four countries are central or regional government bodies directly involved.

Financial support is currently provided to inspection/certification bodies in eight countries and directly to producers in six countries. These provide recompense to private bodies for their involvement in regulatory activities and may provide an effective way to overcome cost barriers for smaller operators undergoing the certification process.

Advice, extension and information

Organic extension work has the aim to provide farmers with information about organic farming, particularly during the period of conversion. This is achieved through various measures, such as direct advice to individual farmers or groups of farmers (organic and conventional), as well as demonstration farm networks and other information services.

Organic advisory services further fulfil an important role in providing a link between researchers and farmers and help to ensure the relevance of research undertaken and subsequent dissemination of results.

In all countries organic farmers and growers and their organisations are a very important source of information to organic producers, the producer organisations receive public support in recognition of their role in seven countries.

National and regional extension programmes providing demonstration farm networks and/or direct advice to farmers exist in eleven countries, seven of which are included in the national agri-environment programmes under EC Reg. 2078/92. The regional co-ordination of organic farming groups received support under Objective 5b in three countries. Most programmes have the aim to increase the uptake of organic farming.

In eleven countries organic extension services receive public support, the total public expenditure in the EU for various extension activities dedicated to organic farming in 1996 is estimated to be in the range of 15 MECU.

A national network of organic advisors exists in nine countries, but the lack of experienced personnel and further training and support for an increasing number of organic advisors, particularly during periods of rapid growth of the organic sector, appears to be a weakness. The delivery of advice could further be improved through enhanced national and international co-operation of the various providers.

Training and education

The training opportunities in organic farming in the countries studied range from short courses for farmers, courses at high-schools (agricultural colleges), specialist technical and academic qualifications, optional modules at colleges and universities, and various other courses. Most training in organic farming is offered either through schools and colleges that have specialised in the subject and offer particular courses and qualifications or is part of the mainstream agricultural training.

Teaching of organic farming was introduced as part of the national curriculum in high schools in five countries. Switzerland has published desirable learning outcomes for this type of training.

Training courses for farmers have received funding under EC Reg. 2078/92 in seven countries, in Belgium the programme is funded from government sources. Some courses for technical/vocational and academic qualifications have received funding from the European Social Fund. A co-operation of ten agricultural universities for curriculum development under the SOCRATES/ERASMUS programmes resulted in a joint BSc degree in Ecological Agriculture.

Public support for training in organic farming is difficult to identify as several countries have no special budget and spending on courses would be part of a larger agricultural training budget. The total expenditure in EU for specialist vocational and practical training (including short courses for farmers but excluding academic courses in most countries) for 1996 is estimated to be in the range of 5 to 10 MECU.

The development of guidelines and common curricula at all levels of training in organic farming could improve the training opportunities for organic farming, both within and outside of mainstream agricultural education.

Research and development

In the past farmers have been the main driving forces in developing organic farming, but today research involvement is considered as vital. However, there is a need for research to maintain links with the industry and ensure effective two-way communication of research needs and research results.

Organic farming has been included as a topic for further research in the second and third and fourth Framework programme of the European Union. A total of ten projects funded under the three programmes (1 under CAMAR, 8 under AIR, 1 under FAIR) were identified including two concerted actions aiming to improve the co-ordination and documentation of organic farming research (ENOF and DOCEA).

In most countries research activities in organic farming are increasing. In seven of the countries studied research on organic farming is part of a national research programme, in a further two activities are co-ordinated nationally.

Research is mainly carried out by private and public bodies that specialise in organic farming work, but an increasing number of institutions of mainstream agricultural research get involved.

Organic farming research receives public support in nine countries. Total spending on organic farming research (excluding university chairs) in 1996 in the EU and individual countries is estimated to be in the range of 15 MECU.

Research work fall in the broad categories of applied short term projects (“problem solving”), long term studies of farming systems, research to support policy making and application of the results of conventional work.

Commonly mentioned research priorities include various aspects of animal and horticultural production; the evaluation of inputs; organic seed production and breeding new concepts of sustainable land use with organic methods and their environmental impact; improved understanding of the self-regulatory mechanisms for pest and disease control and socio-economic implications of organic farming and widespread conversion.

Limited research funding has been identified as a major barrier for future work. Shortcomings lie in the lack of quality of some of the current research as well as dissemination of the results. Research priorities of public funding bodies should be set after consultation with the industry as well as researchers. The research activities could be further improved through more national and international co-ordination and co-operation, “organic” peer review to improve research methods and multi-disciplinary projects.

Integrated national policies to support organic farming

Support for the organic sector falls into four broad categories: payments to producers, marketing and regional development, legal definitions, and information provision. The commitment to support organic farming varies widely between countries.

The review presented in this report suggests that in future more integrated programmes in all four areas are needed, if organic farming is to be supported. Examples for countries with integrative policies or ‘action plans’ for the development of organic farming are the Nordic countries, the Netherlands and France. These countries also set clear targets for conversion rates (between 3 and 10% by 2000).

The Agenda 2000 rural development proposals have significant parallels to these action plans, by integrating most of the measures discussed in this report into a single regulation. Countries will be allowed to combine agri-environmental measures and less-favoured areas with investment aids, processing and marketing support, and training and advisory initiatives.

Future research

This report only provides a descriptive overview of the policy and regulatory environment for organic farming in the EU, and a preliminary assessment of some of the key issues identified. Future work on this research project will include:

- a more detailed analysis of the impacts on the development of organic farming of the individual measures described in this report;
- an assessment of the contribution that the growth in organic farming has made to current agricultural and environmental policy objectives;
- the development of a list of possible policy instruments suitable for influencing the development of organic farming;
- the identification of institutional and other factors that have contributed to the very different rates of development of organic agriculture in different countries, and
- an analysis of the potential impacts of future policy developments and expansion of the organic farming sector in Europe.

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Abbreviations

AAP	Arable Area Payments
AGÖL	ArbeitsGemeinschaft Ökologischer Landbau (DE)
AIAB	Associazione Italiana per l'Agricoltura Biologica (IT)
CAP	Common Agricultural Policy
CEE	Central and Eastern Europe
EEA	European Economic Area
ENOF	European Network for Scientific Co-ordination in Organic Farming
ESA	Environmentally Sensitive Area
FAL	Bundesforschungsanstalt für Landwirtschaft Braunschweig
FAO	Food and Agriculture Organisation
FiBL	Forschungsinstitut für Biologischen Landbau (CH)
GAEPS	General Agricultural Environment Protection Scheme (FI)
GATT	General Agreement on Tariffs and Trade
IFOAM	International Federation of Organic Agricultural Movements
LFA	Less Favoured Area
LU	Livestock Unit
OCIS	Organic Conversion Information Service (GB)
OPARDF	Operational Programme for Agriculture, Rural Development and Forestry 1994-1999 (IE)
ÖPUL	Österreichisches Programm zur Förderung Umweltgerechter Landwirtschaft
PAMAF	Programme to Support the Modernisation of Agriculture and Forestry (PT)
REPS	Rural Environment Protection Scheme (IE)
SPD	Single Programming Document
UAA	Utilisable Agricultural Area
UKROFS	United Kingdom Register of Organic Food Standards
WTO	World Trade Organisation

Exchange rates

Most comparisons of payment rates and public expenditure are based on the average budgetary conversion rate of national currency into ECU (b) each year (see Table 0-1).

National payment rates (e.g. for 2078/92) which are fixed in (green) ECU (a) terms, have been converted to national currency values using the ECU (a) rate for the 1st January each year as published in *Agra Europe* (see Table 0-2). These values have then been reconverted to ECU (b) using the annual average conversion rates as above.

Table 0-1: Exchanges rate for conversion of national currency into ECU (b) (budgetary rates)

Yearly average	1 ECU =					1 national currency =				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
ATS	13.62	13.54	13.18	13.43	13.824	0.07342	0.07386	0.07587	0.07446	0.07234
BEF/LUF	40.47	39.66	38.55	39.3	40.5332	0.02471	0.02521	0.02594	0.02545	0.02467
DEM	1.94	1.92	1.87	1.9095	1.9644	0.51546	0.52083	0.53476	0.52369	0.50907
DKK	7.59	7.54	7.33	7.36	7.4836	0.13175	0.13263	0.13643	0.13587	0.13363
ESP	149.12	158.92	163	160.75	165.887	0.00671	0.00629	0.00613	0.00622	0.00603
FIM	6.7	6.19	5.71	5.83	5.8806	0.14925	0.16155	0.17513	0.17153	0.17005
FRF	6.63	6.58	6.53	6.49	6.6126	0.15083	0.15198	0.15314	0.15408	0.15123
GBP	0.78	0.78	0.83	0.81	0.6923	1.28205	1.28205	1.20482	1.23457	1.44445
GRD	268.57	288.03	302.99	305.55	309.355	0.00372	0.00347	0.00330	0.00327	0.00323
IEP	0.8	0.79	0.82	0.79	0.7475	1.25000	1.26582	1.21951	1.26582	1.33776
ITL	1841.2	1915.1	2130.1	1959.0	1929.3	0.00054	0.00052	0.00047	0.00051	0.00052
NLG	2.18	2.16	2.1	2.14	2.2108	0.45872	0.46296	0.47619	0.46729	0.45232
PTE	188.37	196.9	196.11	195.76	198.589	0.00531	0.00508	0.00510	0.00511	0.00504
SEK	9.12	9.16	9.33	8.51	8.6512	0.10965	0.10917	0.10718	0.11751	0.11559
CHF	1.7302	1.6213	1.5457	1.5679	1.644	0.57797	0.61680	0.64694	0.63780	0.60827
CZK	na	na	34.7727	34.4572	35.9304	na	na	0.02876	0.02902	0.02783
NOK	8.3095	8.3742	8.2858	8.1966	8.0186	0.12034	0.11941	0.12069	0.12200	0.12471

Source: Statistisches Bundesamt, Statistisches Jahrbuch für das Ausland; Data for 1997 and Czech Republic: Eurostat

Table 0-2: Exchanges rate for conversion of national currency into ECU (a) (agricultural/green rates) at 1st January

	1 ECU =						1 national currency =					
	1993	1994	1995	1996	1997	1998	1993	1994	1995	1996	1997	1998
ATS	na	na	15.5667	13.4084	13.6782	13.949	na	na	0.06424	0.07458	0.073109	0.07169
BEF/LUF	48.5563	49.307	49.307	39.5239	40.0486	40.932	0.02059	0.02028	0.02028	0.02530	0.02497	0.02443
DEM	2.35418	2.3542	2.3542	1.90616	1.94386	1.9824	0.42478	0.42477	0.42477	0.52462	0.51444	0.50444
DKK	8.97989	9.3481	9.3481	7.49997	7.49997	7.5492	0.11136	0.10697	0.10697	0.13333	0.13333	0.13246
ESP	116.075	190.382	192.319	165.1978	165.198	167.153	0.00602	0.00525	0.0052	0.00605	0.00605	0.00598
FIM	na	na	7.0383	5.88000	6.02811	6.0281	na	na	0.14208	0.17007	0.165889	0.16589
FRF	7.89563	7.9819	7.9819	6.61023	6.61023	6.6877	0.12665	0.12528	0.12528	0.15128	0.15128	0.14953
GBP	0.939052	0.921	0.9536	0.856563	0.809915	0.6957	1.06490	1.08578	1.04866	1.16746	1.23470	1.43740
GRD	310.351	328.567	352.289	311.761	311.761	312.011	0.00322	0.00304	0.00284	0.00321	0.00321	0.00321
IEP	0.878776	0.9764	0.9764	0.829498	0.812908	0.7592	1.13795	1.02417	1.02417	1.20555	1.23015	1.31718
ITL	2087.008	2222.98	2383.42	2164.34	1973.93	1973.93	0.00048	0.00045	0.00042	0.00046	0.00051	0.00051
NLG	2.65256	2.6526	2.6526	2.14021	2.18167	2.2327	0.37699	0.37699	0.37699	0.46724	0.45836	0.44789
PTE	209.523	236.933	239.331	198.202	198.202	200.321	0.00477	0.00422	0.00418	0.00505	0.00505	0.00499
SEK	na	na	10.96	9.24240	8.64446	8.6526	na	na	0.09124	0.108197	0.11568	0.11557

Source: *Agra Europe*

na = not applicable

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1 Introduction

1.1 Organic farming definitions

In accordance with Community rules, organic farming can be defined as a system of managing agricultural holdings that implies major restrictions on fertilisers and pesticides. This method of production is based on varied crop farming practices, is concerned with protecting the environment and seeks to promote sustainable agricultural development.

It pursues a number of aims such as the production of quality agricultural products which contain no chemical residues, the development of environment-friendly production methods avoiding the use of artificial chemical pesticides and fertilisers, and the application of production techniques that restore and maintain soil fertility.

Inspections are carried out at all stages of production and marketing, with a compulsory scheme, officially recognised and supervised by the Member States, involving regular checks on all operators

(Baillieux and Scharpe, 1994: 5).

Organic farming can be seen as an approach to agriculture where the aim is to create integrated, humane, environmentally and economically sustainable agricultural production systems. The term 'organic' is best thought of as referring not to the type of inputs used, but to the concept of the farm as an organism, in which all the components - the soil minerals, organic matter, micro-organisms, insects, plants, animals and humans - interact to create a coherent, self-regulating and stable whole. Reliance on external inputs, whether chemical or organic, is reduced as far as possible. In many European countries, organic agriculture is known as ecological or biological agriculture, reflecting the reliance on ecosystem management rather than external inputs. Detailed descriptions of the principles and practices of organic farming can be found in the many books on the subject published around the world in recent years (e.g. Lampkin, 1990; Neuerburg and Padel, 1992).

The major factor which distinguishes organic farming from other approaches to sustainable agriculture is the use of the market to support the environmental, social and animal welfare objectives. This has led to the development of detailed production standards and certification procedures (e.g. IFOAM, 1995) to draw a clear dividing line between organic and other farming systems. These have been supplemented by national regulations in some countries and in the EU by Regulation (EEC) No. 2092/91 for organic crop production (EC, 1991a) – a similar regulation for organic livestock production is currently under consideration.

1.2 Organic farming and agricultural policy

There are several reasons why policy makers have developed an interest in organic farming:

- A variety of general environmental benefits can be expected from organic farming, such as soil conservation, increased diversity of plants and animals, utilisation of local and renewable resources, and reduced soil and groundwater pollution. In addition, organic farming can make a contribution towards specific habitat conservation.
- Consumer demand for organic products is increasing. Organic products are perceived to be of high nutritional and health value, partly due the restrictions on the use of fertilisers and pesticides, which reduce the likelihood of any harmful residues. More recently, perceived environmental and animal welfare benefits have strengthened consumer interest. An increase in the supply base is necessary to meet consumer demand.
- The existence of a distinct market for organically produced food and fibre provides a means by which producers can be compensated for internalising external costs, which would otherwise be carried by society.
- Because of lower intensity of production, organic farming can contribute to limiting surpluses, due to lower yields per unit land area or per animal, reduced areas of intensive crops and reduced livestock numbers. The output reduction benefits may offer significant potential for net public expenditure savings, even where direct payments are made to farmers to assist conversion.
- Organic farming offers opportunities for diversification of farms, and because of increased labour requirements has potential to contribute towards rural development.

For these reasons, and the fact that the costs of converting to organic management are incurred by the individual farmer, whereas society is likely to benefit from the results, conversion aid schemes were introduced in various countries in Europe. The first scheme was introduced in Denmark in 1987, shortly followed by other countries. Germany introduced conversion aid under the EU extensification programme of the EU. As part of the CAP Reform, the introduction of the agri-environment programme provided a unified framework for supporting conversion to and continued organic production.

The development of the organic sector has varied considerably between the countries of the EU. In Austria 7.3% of all agricultural holdings and 9.0% of UAA were managed organically at the end of 1996, whereas Greece with 0.13% of farms and 0.15% of UAA has the lowest rates of conversion. Other countries with high percentages of holdings and land area converted to organic production are Germany, Finland, Sweden, and Switzerland. Spain and Portugal have very low uptake rates. The different regulatory environment for organic farming in terms of legal definitions, direct payments for conversion and continuing organic production, as well support for market development, extension, training and research, is

likely to have contributed to the variation in numbers and land area of organic farms.

1.3 Objectives of the report

The main objective of this report is to describe in detail the policy and regulatory environment within which organic farming currently operates in the EU and, as a comparison, in three non-EU countries (Norway, Switzerland and the Czech Republic). This includes the specific regulations on organic farming as well as the more general rules of the Common Agricultural Policy (CAP) as they are relevant to organic farming. The intention of this report is to provide a descriptive baseline and to identify key factors for further analysis in the in later stages of the research project.

The report is part of the research project „Effects of the CAP Reform and possible further development on organic farming in the EU“ (FAIR 3-CT96 1794) with financial support from the Commission of the European Communities. The general objective of the project is to provide an assessment of the impact of CAP Reform and possible policy developments on organic farming and thus contribute to a better understanding of the effects that current EU policies have on this sub-sector. This implies the objective of improving the understanding of the consequences future policy development might have on organic farming as well as the contribution organic farming might make to EU policy goals.

The report is structured in nine main sections, each representing one important area where national and European policies are likely to have had considerable influence on the development of the organic sector. As non-EU countries, Switzerland and Norway were also selected for study because both countries have developed their own policies in supporting agricultural in general as well as organic farming in particular. The Czech Republic was included as an example for the CEE accession countries, again with a history of political initiatives to support organic farming. The main sections cover the regulatory framework and the implementation of EU measures and national/regional support programmes for organic farming in the following areas:

- Agri-environmental, extensification and similar measures
- Mainstream CAP Reform measures
- Marketing and processing measures
- Regional development measures.
- EC Reg. 2092/91 and national standards for organic farming.
- Support for advisory services
- Support for education and training
- Support for research
- Integrated support and future policy developments.

In each case, a review of the regulations and their implementation is followed by a brief evaluation of their impact on the development of the organic sector, based on published and unpublished studies that were carried out prior to this project and other sources. This preliminary analysis of the data in each section leads to some tentative conclusions, which are intended to raise awareness about possible effects of the policy measures. A more detailed analysis of specific aspects together with the development of policy recommendations will follow during later stages of this project. The report does not necessarily reflect the views of the European Commission and in no way anticipates the Commission's future policy in this area.

1.4 Methodology and data sources

Data collection for this report was carried out by national experts in each of the EU and three non-EU countries, either as sub-contractors or partners of the project. The five project partners are responsible for particular aspects of the research and act as national experts for the development of the organic sector in their own country. Each partner is also responsible for supervising the data collection by the sub-contractors in a number of countries. Consequently, data collection in each country is carried out by a native speaker and recognised expert in organic farming.

The data collection process that was performed by the national experts in each country included postal surveys, literature reviews, phone and personal interviews. This was necessary to be able to document the policy and regulatory environment of organic farming in the EU in detail. In line with the procedures adopted for the whole project, the authors developed a standardised questionnaire that was circulated for feedback first to all project partners and secondly to all the contributors. The questionnaire was modified accordingly and guidelines together with one example result were drawn up. In the next step, the questionnaire was pre-tested by one project partner before the final version was sent to all national experts for implementation.

The national experts were advised to utilise the following data sources:

- literature reviews of scientific journals and specialised literature as well as relevant grey literature
- unpublished results of ongoing research projects
- national government statements and regulations
- certification standards and
- brief consultations with key individuals in each specific field.

Where possible the data were confirmed from other sources, such as Lampkin (1996a and 1996b) and other published material. Of particular importance have been information and data on the development of organic farming in Europe (Willer, 1998) and on the implementation of EC Reg. 2078/92 (Deblitz and Plankl, 1997).

The data analysis concluded in the compilation of a draft report and accompanying appendix for each country, which was circulated among project partners, subcontractors and representatives of the responsible Ministry in each country in order to close the existing gaps of information, and check each appendix for accuracy. Subsequently, the European Commission granted access to Commission documents in order to collect additional information.

The descriptive analysis of this report integrates a qualitative, semi-qualitative and quantitative approach leading to some tentative conclusions that are based on the material reviewed and form a basis for potential policy recommendations to be compiled at a later stage of the project.

2 Organic farming support under agri-environmental and extensification programmes

The CAP Reform of 1992 saw the introduction of both ‘mainstream measures’ (see Section 3), and ‘accompanying measures’: the agri-environment programme (EC Reg. 2078/92), the early retirement programme (EC Reg. 2079/92), the farm forestry programme (EC Reg. 2080/92) and the regional products programme (EC Reg. 2081/92). The agri-environment programme (EC, 1992) has provided the most important mechanism for supporting organic farming in the European Union since 1994. However before 1994, some countries made use of the EU's extensification programme (EC, 1988a), while others made use of national or regional programmes. The forestry and early retirement measures have little direct relevance to organic farming and are not considered further in this report. The regional products programme has indirect relevance to support for the marketing of organic products, which is considered in more detail in Section 4.

This section reviews the range of schemes (measures) implemented under EU and national/regional programmes to provide direct support for organic farming, with a particular emphasis on schemes supported under the agri-environment programme.

2.1 Regulatory framework

2.1.1 EU regulations

An overview of EU policies on agriculture and the environment is provided by Cammarata et al. (1997) and policies on organic farming by Baillieux and Scharpe (1994). These publications also address the role of other policies considered in later sections of this report. In this section, only the most relevant environmental and extensification policies are considered.

Council Regulation (EEC) No. 2078/92 (EC, 1992)

The purpose of the agri-environment programme is to contribute to the achievement of policy objectives regarding agriculture and the environment and to contribute to providing an appropriate income for farmers. Subject to positive effects on the environment, aid is available for farmers who undertake:

- a) to reduce substantially their use of fertilisers and/or plant protection products, or to keep to the reductions already made, or to introduce or continue with organic farming methods;

- b) to change, by means other than those referred to in a), to more extensive forms of crop and forage production, or to maintain extensive production methods introduced in the past, or to convert arable land into extensive grassland;
- c) to reduce the proportion of sheep and cattle per forage area;
- d) to use other farming practices compatible with the requirements of protection of the environment and natural resources, as well as the maintenance of the countryside and the landscape, or to rear animals of local breeds in danger of extinction;
- e) to ensure the upkeep of abandoned farmland or woodlands;
- f) to set-aside farmland for at least 20 years with a view to its use for purposes connected with the environment, in particular for the establishment of bio-topo reserves or natural parks or for the protection of hydrological systems;
- g) to manage land for public access and leisure activities.

In addition, the scheme includes measures to improve the training of farmers with regard to farming or forestry practices compatible with the environment, and particularly with codes of good farming practice or good organic farming practice, by grant of aid for:

- attendance of courses and traineeships;
- organisation and implementation of courses and traineeships (including preparation of materials);
- demonstration projects concerning farming practices compatible with the requirements of environmental protection, and in particular the application of a code of good farming practice and organic farming.

Support for demonstration and training under EC Reg. 2078/92 is considered in more detail in Sections 7 and 8 respectively.

Commission Regulation (EC) No. 746/96 (EC, 1996a)

This regulation clarifies the rules for implementation of EC Reg. 2078/92. Of particular relevance to organic farming support, it requires that in defining the content and level of aid, member states should take account of Community rules on organically produced products, i.e. EC Reg. 2092/91 (see Section 6). Further clarifications relate to schemes to support conversion of arable land to pasture, livestock extensification, linear units (e.g. hedgerows), abandoned land, environmental set-aside and training and demonstration projects.

The regulation also clarifies how aid levels should be determined and the scope for combination of support programmes. In particular, the level of any incentive element in any support programme should not exceed 20% of calculated income foregone and additional costs incurred, other than in exceptional circumstances. The regulation restricts the extent to which payments can be made for the same land under different Community regulations, for example set-aside under EC Reg. 1765/92 and beef extensification (see Section 3) as well as certain measures under EC Reg. 2328/91 (see Section 4).

Commission Regulation (EEC) Nos. 1094/88 (EC, 1988b) and 4115/88 (EC, 1988a)

These regulations provided the basis for the EU's extensification programme, the aim of which was to reduce production of commodities in surplus rather than the achievement of environmental benefits as in the case of EC Reg. 2078/92. The EU's initial extensification policy (EC Reg. 1094/88) was linked to the set-aside programme (EC Reg. 1760/87) and required a 'quantitative' 20% reduction in other surplus commodities, in particular the numbers of sheep and beef animals on individual farms (EC, 1988b). This proved unsuitable as a means to support conversion to organic farming or other lower intensity systems. The revised regulation (EC Reg. 4115/88) introduced a 'production methods' option, the aim of which was to achieve a 20% reduction in output based on the adoption of less intensive practices. This legislation provided the basis for schemes to assist conversion to organic farming, initially in Germany and later in France and Luxembourg.

2.1.2 National/regional legislation

In **Switzerland**, agri-environmental support is provided under Article 31b of the 1994 agricultural law (BLW, 1997). This support is intended to promote environmentally sustainable and animal friendly production systems, including integrated farming, organic farming and free-range livestock production.

In **Norway**, support for conversion to organic farming is provided under the *Forskrift for omleggingstilskudd til økologisk landbruk, Landbrukdepartementet 12.11.1996*, while support for continuing (maintenance of) organic farming was, until 1997, provided under the more general arable and agri-environment support regulation *Forskrift om areal og kulturlandskapstillegg, Landbruksdepartementet, 3.7.1997*. At the end of 1997, support for both conversion and continuing organic farming was merged into a single programme specifically for organic farming: *Forskrift om tilskudd til økologisk landbruk, Landbruksdepartementet, 2.12.1997*. The aim of the various organic farming support programmes is to stimulate farmers to convert to organic farming and thereby contribute to meeting the demand for organic products. This is part of a general strategy to develop a more robust agriculture by improving the position of Norwegian agriculture in domestic markets, in particular by improving product quality and encouraging high ethical standards and maintaining and enhancing the environment. Organic farming is seen as a role model providing knowledge and ideas for more traditional agriculture in this context.

The pioneering **Danish** law on organic farming (No. 363, of 10.06.87) was the first national programme to define and provide support for organic farming and associated organisational, development and marketing activities.

Details of other national and regional aid schemes in EU countries which are not backed by EU Regulations are included in the next sections and in the individual country sections of volume 2 of this series (Lampkin et al., 1999).

2.2 Measures implemented

The following review of organic farming support measures is based on data collected by the researchers and sub-contractors in each of the countries studied, supplemented by data from published and unpublished sources, notably Deblitz and Plankl (1997), EC (1997e), STAR (1997) and Umstätter and Dabbert (1996).

2.2.1 Policies to support organic farming 1987-1993

Many western and central European countries introduced conversion aid schemes and other forms of financial support for organic farmers on a national or regional basis between 1987 and 1993, prior to the introduction of more general agri-environmental measures (Besson, 1990; Lampkin and Padel, 1994; Znaor, 1994). The main schemes in the study countries are summarised below. Further details of these schemes can be found in the individual country sections in Lampkin et al. (1999).

Denmark was the first country to introduce a financial support scheme for organic farming on a significant scale (Dubgaard and Holst, 1994). The scheme covered the development of extension, information and marketing services as well as financial assistance during the conversion period. The conversion aid payments covered a three-year period, but the whole farm had to be converted within 6 years according to an approved plan, and payments were related to stocking rates for livestock. They were also weighted towards the start of the conversion period. By 1993, 257 farms on 1 437 ha were supported by the scheme.

Germany was the first EU member state to introduce, in 1989, a scheme to support conversion to organic farming in the context of the EU's extensification policy (EC Reg. 4115/88), which had the reduction of surpluses as its main objective. The implementation of the scheme varied between *Länder*. Farmers were generally presented with three options: conversion to organic farming; the production of cereals without sprays or fertilisers (so-called 00 cereals); and the conversion of cereal type from wheat and winter barley to rye, oats, spring barley or spelt wheat. Existing organic producers were not eligible for the payments. The condition of the extensification legislation, that output of surplus arable crops should be reduced by 20%, without any increase in other surplus commodities (such as beef and sheep) was applied to the organic conversion option. 11 248 farms on 372 843 ha converted using this

scheme between 1989 and 1993. However, less than half of these chose to become certified organic farms.

Austria provided support in 1989 and 1990, under provisions of the 1988 Agriculture Act, to help organic farming organisations with advisory, certification, publicity and marketing activities. The emphasis was on building up the extension and marketing infrastructure before making conversion payments generally available. Converting farms were supported initially in three regions. In 1990/91, pilot projects for conversion payments were started. Widespread financial support for the converting and continuing organic farmers started in 1992. In 1994, there were 11 568 participants with 153 800 ha. The scheme continued until EU accession in 1995.

Sweden introduced policies to support organic farming on environmental and surplus reduction grounds in 1989. These policies included support for a state advisory service for organic producers as well as an one-off financial support scheme for conversion to and, uniquely at that time, continuation of organic production. The conversion support was paid for a maximum of three years, depending on land quality, yield potential and land use, but did not cover all the land under conversion and was not payable on horticultural crops. Grassland and green manures received funding for one year. Organic management had to be maintained for six years. Funding was only available for farms registered in 1989, although conversion could start up to 1992. 1 781 converting and existing farms on 30 000 ha qualified for the support in 1989.

In **Switzerland**, a number of cantons introduced conversion support schemes from 1989 (Schmid, 1994). These cantonal schemes were supplemented in 1994 by the national organic farming support scheme.

The **Czech Republic** introduced conversion subsidies for organic and integrated farmers in 1990, as well as creating the position of Deputy Minister responsible for privatisation and organic farming. In 1990, 85 farmers on 13 000 ha registered with the scheme. In 1991, the support payments were changed to investment grants, which became loans in 1992. The support levels were the same for integrated and organic farmers, making the schemes competitive, although the investment aids (grants and loans) varied significantly from farm to farm depending on requirements. In 1993 the support scheme was abandoned, although this was seen as beneficial to the organic sector. At the same time, the Ministry of Agriculture took responsibility for running and funding the organic farming control and certification system.

Finland introduced a conversion aid scheme in 1990 under law no. 1261/89 covering the first three years of conversion. The conversion could take up to eight years, but organic management had to be maintained for at least five. Initially, payments were not differentiated by region. Funding also covered ten full-time advisers and aid for research. Farmers' attendance at 3-5 day training courses was compulsory. In 1994 there were 1 433 participants on 26 327 ha. The scheme continued until EU accession in 1995.

Norway also introduced a conversion support scheme in 1990. The payments over three years consisted of an element per ha and an amount

per farm, depending on farm size. From 1992, farmers also received a payment for each of the three years following conversion. The whole farm had to be converted within 10 years. The number of organic farms increased from 89 in 1989 to 501 in 1993.

France used the EU extensification programme (4115/88) briefly to support conversion to organic farming in 1992. It was implemented by Decree 92-369. The short notice given (11/5/92-30/6/92) restricted the number of applications. Overall, 909 applications were submitted, of which 211 were accepted, but 73% of farmers converted only parts of their holdings, so that 80% of the land area supported was used for annual crops and 15% for vineyards.

Luxembourg provided support from 1992 under the EU extensification programme (4115/88). Although the scheme could be used to support conversion to organic farming, it was not specifically targeted at organic farmers. The scheme remained open for applicants until 1997, to be followed in 1998 by new agri-environment schemes under 2078/92.

2.2.2 Policies to support organic farming 1994-1999

EC Reg. 2078/92 provided a framework for all EU member states to implement policies to support organic farming (Table 2-1). The majority of schemes were implemented in 1994, with AT, FI and SE starting in 1995 on accession to the EU. However, some regions in IT, DE and GB did not start until 1995 or later. The schemes in ES and GR were first implemented in 1996, while LU and CZ have just (re) introduced specific organic farming schemes in 1998.

Most countries have a uniform national policy, but several have significant regional variations in rates of payment and requirements (DE, ES, GB, FI, FR, IT, SE and CH) (Table 2-2). The regional payment variations in Finland and Sweden are primarily related to the productive capability of different areas. Details of these regional variations are contained in Lampkin et al. (1999)

Table 2-1: Dates when organic farming support schemes were first implemented (19..)

Measures	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
2078/92 schemes	95	95 ¹	94± ²	94	96± ⁴	95	93	94 ⁵	96 ⁶	94	94± ⁷	98 ⁹	94	94	95	-	-	-
Other current schemes	-	-	(92) ³	-	-	-	-	-	-	-	-	(96) ¹⁰	-	-	-	93 ¹²	98 ¹⁴	90
Previous schemes	91	-	89	88	-	90	92	-	-	-	(90) ⁸	(92) ¹¹	-	-	89	(89) ¹³	90 ¹⁵	-

Source: own data

BE ¹ Implemented in 1995 but applied retrospectively to 1994

DE ² Regional variations in starting dates 1993-1995. ³ There are a number of *Länder*, communal and waterworks schemes operating in parallel to 2078/92.

ES ⁴ Some regions started in 1995, others in 1997 and 1998.

GB ⁵ 1995 in Northern Ireland.

GR ⁶ Applications backdated to 1995.

IT ⁷ Regional variations in start dates from 1993 to 1996. ⁸ Some regional schemes initiated in 1989-1991.

LU ⁹ Specific organic farming scheme implemented in 1998. ^{10,11} Previously, support available to conventional and organic farmers under countryside stewardship (1996) and extensification (1992) schemes

CH ¹² National scheme. ¹³ Cantonal schemes only.

CZ ¹⁴ New support scheme for organic farming in less favoured areas. ¹⁵ Investment aids and loans for conversion 1990-1992.

Table 2-2: Regional variations in application of current organic farming support schemes

Regional variations	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Existence of regional variations	-	-	✓ ¹	-	✓ ²	✓ ³	✓ ⁴	✓ ⁵	-	-	✓ ⁶	-	-	-	✓ ⁷	✓ ⁸	(✓) ⁹	-

Source: own data

✓ = yes, - = no regional variations

See individual country sections in Lampkin et al. (1999) for details of regional variations.

DE ¹ Länder responsible for own programmes.

ES ² Autonomous regions are responsible for own programmes; schemes are similar, but differences in maximum limits, livestock standards and payment rates.

FI ³ Payment rates but not other conditions vary on regional basis.

FR ⁴ Conversion to organic farming schemes are centrally co-ordinated, but some regions have adjusted payment rates and support existing producers.

GB ⁵ Payment rates but not other conditions vary on regional basis.

IT ⁶ Regions responsible for own programmes.

SE ⁷ Payment rates but not other conditions vary on regional basis.

CH ⁸ Cantonal schemes exist in parallel with national scheme.

CZ ⁹ Scheme applies in less favoured areas only.

2.2.3 Requirements and eligibility conditions of current organic farming schemes

2.2.3.1 Farmers eligible to participate

Most of the schemes allow for new farmers converting to, and existing farmers continuing with, organic production to qualify for aid (Table 2-3). Only France (with some regional exceptions) and the United Kingdom do not support existing organic producers. Schleswig-Holstein in Germany, which previously had no maintenance payments, introduced a scheme to support existing organic producers linked to a marketing fund in 1998.

Most countries allow staged conversions, where parts of the farm are converted progressively over a number of years. Several countries (CH, DK, FI, FR, parts of IT, and NL) place limits on the time period which can be taken for this. A staged conversion of the whole farm allows experience to be gained and minimises the risks of financially and environmentally damaging mistakes in the early phases of conversion. Staged conversions also avoid the need for sub-optimal entry points into organic rotations. Germany requires the whole farm to be converted in a single step, in line with most German certification organisations. Ireland also requires a single step, whole farm conversion as a consequence of the Rural Environment Protection Scheme (REPS) rules.

Most countries permit part farm conversions in line with EC Reg. 2092/91 (EC, 1991a). Five countries (CH, DE, DK, IE and parts of IT) do not permit this, in part due to the perceived problems of controlling mixed organic and conventional units. The Austrian and Norwegian schemes previously did not permit part farm conversions, but now do as a result of adopting EC Reg. 2092/91.

2.2.3.2 Organic management and certification requirements

All schemes require organic management of crops to be maintained for at least 5 years (6 years in Switzerland) or payments must be refunded. In nearly all cases in the EU, organic crop production must be controlled according to EC Reg. 2092/91 (EC, 1991a) (Table 2-4). The main exceptions to this are Sweden and some *Länder* in Germany, which use sample monitoring to confirm adherence to EC Reg. 2092/91 requirements. Some regions in Italy combine certification to EC Reg. 2092/91 with sample monitoring. In the Swedish case, the intention is to maintain a clear distinction between certified organic production for the market, and organic farming supported for agri-environmental policy reasons.

Table 2-3: Eligibility to participate in organic farming support schemes

Group	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU ¹¹	NL	PT	SE	CH	CZ ¹⁵	NO
Converting farmers eligible	✓	✓	✓	✓	✓	✓	✓	✓	✓ ⁷	✓	✓	✓	✓	✓	✓	✓	✓	✓
Staged conversions permitted	✓ ²	✓	-	✓ ³	✓	✓ ⁴	✓ ⁶	✓	✓	- ⁸	✓ ⁹	nd	✓ ¹²	✓	✓	✓ ¹⁴	✓	✓
Part farm ¹ conversions permitted	✓ ²	✓	-	-	✓	(✓) ⁵	✓	✓	✓	- ⁸	✓ ¹⁰	nd	✓ ¹³	✓	✓	-	✓	✓ ¹⁶
Existing organic farmers eligible	✓	✓	✓	✓	✓	✓	-	-	✓ ⁷	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: own data

✓ = yes, (✓) = restricted, - = no, nd = no data

¹Part farm defined as a distinct unit as in EC Reg. 2092/91.

AT ² Staged and part farm conversions previously not possible - must include whole unit, not individual crops.

DK ³ Conversion of last areas of land must start by 4th year.

FI ⁴ Conversions can be staged over 2-3 years. ⁵ Part farm means small, poor quality or unsuitably located fields may be omitted.

FR ⁶ Maximum length of staged conversions is 5 years.

GR ⁷ Priority for 1995 entry given to farms certified by approved body for 1993-1996, and for 1996/7 entry to farmers whose land situated in a) areas of Natura 2000 network; b) within 1km of coasts; c) within 600m from lake shores; d) within 300m of river banks; e) islands except plains of Crete and Evia; f) mountainous (> 600m) or semi-mountainous (200-600m) areas of mainland. If total ha does not meet national targets ('95:3,200; '96:1,800; 1997:1,000; total:6,000 ha), then other certified producers in plains and elsewhere eligible.

IE ⁸ Under Rural Environment Protection Scheme rules, all land farmed must be either fully converted or undergoing conversion in the case of producers of animals and animal products (take-up by horticultural producers is minimal).

IT ⁹ Staged conversions possible, in some regions with time limits. ¹⁰ Part farm conversions normally possible, but some regions require whole farm conversion, or combinations between organic and other reduced input measures on different parts of whole farm.

LU ¹¹ Information applies to new organic farming scheme.

NL ¹² Staged conversions max. 5 years. ¹³ Part farm conversions must involve whole enterprise/unit.

CH ¹⁴ Staged conversions max. 5 years.

CZ ¹⁵ 1998 less-favoured areas organic farming scheme.

NO ¹⁶ Part farm conversion not permitted initially.

Table 2-4: Organic management and control requirements in organic support schemes

Organic status	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU ¹⁹	NL	PT	SE	CH	CZ	NO
Crops managed organically	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2092/91 control required	✓	✓ ³	✓ ⁴	✓	✓ ⁹	✓	✓	✓	✓	✓	✓	✓	✓	✓	- ²¹	✓ ²³	(✓) ²⁵	✓ ²⁶
Livestock managed organically	✓ ¹	-	(✓) ⁵	✓ ⁷	✓ ¹⁰	-	✓ ¹¹	- ¹²	- ¹⁴	✓ ¹⁵	(-) ¹⁷	✓	- ²⁰	-	(✓) ²²	(✓) ²⁴	-	- ²⁷
Assistance for control costs	✓ ²	-	(-) ⁶	(✓) ⁸	-	-	-	✓ ¹³	-	(-) ¹⁶	(✓) ¹⁸	-	-	-	-	-	-	-

Source: own data

✓ = yes, - = not required/not available, () = limited basis

AT ¹ National standards (*Codex Alimentarius Austriacus*). ² 500 ATS (36.2 ECU)/ha up to 10 ha (not co-financed under EC Reg. 2078/92).

BE ³ Biogarantie for animal production and crop products not covered by EC Reg. 2092/91

DE ⁴ Some *Länder* require certification, others use sample monitoring. ⁵ Some *Länder* specify organic livestock management, but most do not. On farms that are AGÖL certified, livestock production must be organic. *Länder* own standards (comparable to IFOAM) are used for livestock if not AGÖL. ⁶ Bayern provides 80 DEM (40.7 ECU)/ha additional support for up to 10 ha to cover inspection costs. A similar scheme operates in Baden-Württemberg, independent of EC Reg. 2078/92.

DK ⁷ National standards for livestock. ⁸ Farmers only pay direct control costs, other costs covered by state.

ES ⁹ Organic status controlled by relevant regional authority. ¹⁰ Livestock standards based on former national standard (CRAE) but some regions have own standards.

FR ¹¹ Livestock managed to Ministry standards (*Agriculture Biologique*). Some regions allow conventional management of livestock.

GB ¹² UKROFS standards apply to livestock, but organic management is not a formal requirement. ¹³ 30 GBP (43.3 ECU)/ha supplement for up to 5 ha.

GR ¹⁴ Organic livestock enterprises not yet inspected/certified.

IE ¹⁵ Livestock managed to approved inspection body's standards. ¹⁶ Inspection bodies receive support for horticultural inspections outside 2078/92 context.

IT ¹⁷ Organic livestock management not normally required, except in some regions if grassland is supported. Livestock standards are those of approved certifying bodies.

¹⁸ Tuscany and Marche provide assistance for control costs.

LU ¹⁹ Details relate to new 1998 organic farming scheme.

NL ²⁰ Forage production excluded before end 1996. Skal standards apply if livestock managed organically

SE ²¹ Crops produced according to 2092/91 requirements, but control not required (sample monitoring).

²² Organic management of livestock (to IFOAM standards) optional - supplementary support payable.

CH ²³ Crops certified to national standards (EC Reg. 2092/91 equivalent). ²⁴ Organic management of livestock required under national production standards.

CZ ²⁵ Certification by CZ recognised organic farming organisations.

NO ²⁶ Crop production standards incorporate EC Reg. 2092/91. ²⁷ Debio standards apply to livestock.

(ECU currency conversions at average rate for 1997)

More than half the countries do not require livestock to be managed organically, the eight exceptions are AT, DK, ES, FR, IE, LU and some regions in DE and IT. In Sweden, organic management of livestock is required if the livestock supplement is claimed. Livestock production requirements are more complex because EC Reg. 2092/91 has not yet been extended to cover this aspect (Section 6). Some countries like Sweden rely on IFOAM standards (IFOAM, 1995), while most rely on national standards as implemented by recognised certification bodies. In Germany, certification to AGÖL standards, and in Switzerland, certification to national organic standards, means that organic management of livestock is required *per se*.

Although assistance with certification costs is not specifically provided for under EC Reg. 2078/92, Austria, the United Kingdom and Bayern in Germany make an additional payment on the first 5 to 10 ha. In the Austrian case, these payments are made as a state aid and are not co-financed by the EU. In some cases, general support for certification is available (see Section 6). This type of provision is particularly significant where certification is compulsory, as few, if any, other agri-environment options require producers to pay for inspection and certification to prove eligibility for aid payments.

2.2.3.3 Maximum and minimum size, stocking rate and payment limits

Several countries operate maximum and minimum size limits, defined either in terms of land area (total or for individual crops), business size or amount of payment, either on a per farm or per hectare basis (Table 2-5). The actual limits vary widely from country to country. In most countries, maximum payments per hectare are imposed as required by EC Reg. 746/96 where measures are combined.

Half of the countries (AT, DE, DK, FI, FR, LU, SE, CH, NO) also impose stocking rate limits, typically around 2.0 LU/ha (FI 1.5 LU/ha, SE 1.6 LU/ha). In Austria and Ireland, there are also minimum stocking rates in certain situations. In some cases, e.g. Denmark and Finland, the stocking rates are based on manure equivalents, so that imports or exports of manure from the holding will affect the number of livestock that can be kept. Increasingly stocking rate limits are featuring in organic production standards. A limit of 2.0 LU/ha is proposed in the draft EU regulation on organic livestock production (supplementing EC Reg. 2092/91), with the possibility of adjustment for manure imports and exports.

2.2.3.4 Eligible crop, environmental and other restrictions

In a few countries (e.g. ES, GR, PT and parts of IT), the payments are restricted to specific crops. More commonly, permanent grassland is excluded (in DK, FI, GR, LU, NL, PT, SE and individual regions in DE and IT) (Table 2-6). In five countries (AT, DE, DK, GR, SE), and possibly ES and PT, set-aside land is also excluded. (This restriction may be more common than indicated here, but the situation in other countries was not always specifically identified).

Some countries impose environmental requirements additional to EC Reg. 2092/91. In Ireland, Finland and Norway, participation in the main agri-environment protection schemes is compulsory (Table 2-6) but additional payments are made for this (see below). Some countries have additional restrictions on nutrient imports onto organic farms (CH, DK, FI, NO) and more general soil and water protection measures (AT, CH, DE) including prohibitions on the use of sewage sludge and the conversion of permanent grassland into arable land. A few countries (CH, parts of IT) require a proportion (3-5%) of the farm to be dedicated to nature conservation. In some cases, additional environmental restrictions have been incorporated into organic production standards at national level (GB, CH).

Other, non-environmental constraints include requirements that the unit should be a full time unit (BE), should not owe money to the state (CZ), should respect animal welfare requirements (AT). From 1998, Portugal has extended the period of eligibility for higher rate conversion payments to farmers who process or market more than 70% of their produce as organic (organic marketing was previously implemented as an unofficial eligibility condition on an *ad hoc* basis). In Norway, a marketing plan is a requirement of organic production standards.

In part, these exclusions relate to the principle of avoiding double payments for the achievement of the same objective under different agri-environment and mainstream measures, particularly as emphasised in EC Reg. 746/96. But the additional restrictions result in significant variability in the implementation of the schemes between countries, and within countries such as Italy and Germany where regional differentiation is greatest.

Table 2-5: Size and stocking rate limits on areas eligible for organic support or on level of payments receivable

Size limits	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU ¹⁵	NL	PT	SE	CH	CZ ²⁶	NO
Maximum level (per farm)	- ¹	-	(✓) ⁴	(✓) ⁶	6k ⁸	-	(✓) ¹¹	300	-	40	-	50	45k ¹⁶	✓ ¹⁸	(✓) ²⁰	(✓) ²³	-	✓ ²⁷
Unit	-	-	-	-	ECU	-	-	ha	-	ha	-	ha	ECU	ha	-	-	-	NOK
Minimum level (per farm)	2 ²	-	153 ⁵	1	✓ ⁹	3	-	1	-	3 ¹²	(✓) ¹⁴	3	40	✓ ¹⁹	0.1 ²¹	3 ²⁴	2	✓ ²⁸
Unit	ha	-	ECU	ha	ha	ha	-	ha	-	ha	ha	ha	SBU ¹⁷	ha	ha	ha	ha	NOK
Stocking rate (LU/ha)	2 ³	-	2	✓ ⁷	-	1.5 ¹⁰	2	-	-	0.3 ¹³	-	2	-	-	1.6 ²²	2.5 ²⁵	-	✓

Source: own data

✓ = yes, (✓) = limited requirement, - = no requirement/not applicable

AT ¹ Previous scheme maximum 100 000 ATS (7 400 ECU)/farm. ² Current scheme minimum 0.5 ha if > 0.25 ha perennial crops and herbs. ³ Stocking rate maximum 2 LU/ha, minimum 1.5 LU/farm (ruminants or other livestock kept outdoors). Holdings with more than 90% permanent grassland must have at least 0.2 grazing LU per forage ha and at least 1.5 LU per farm – this may include free range non-grazing livestock.

DE ⁴ Generally no maximum, except 3 Länder (35 000 – 40 000 DEM (17 900 – 20 400 ECU)/farm). ⁵ 300 DEM – some Länder vary minimum support levels from normal level shown.

DK ⁶ Maximum payments per ha apply if schemes combined. ⁷ Stocking defined by manure units (DE) – central value: cattle 2.3, pigs 1.7, cropping 1.7 (values reducing in stages to 1.7 on all farms by 2003).

ES ⁸ 1 MESP. ⁹ Minimum areas defined for each crop type – see payments table in Lampkin et al. (1999) for details.

FI ¹⁰ Stocking rate refers to actual livestock or equivalent in manure applications

FR ¹¹ Normally no maximum except some regions, e.g. Drôme 10 600 ECU/farm/year.

IE ¹² Minimum area can be <3 ha if >1 ha fruit and vegetables. ¹³ Minimum stocking rate.

IT ¹⁴ Minimum area in some regions only: 0.2-1 ha (varies according to region and crop type).

LU ¹⁵ Details relate to new 1998 organic farming scheme.

NL ¹⁶ Maximum payments 100 000 NLG (45 250 ECU)/farm over 5 years if converting, 50 000 NLG (22 625 ECU) if continuing, not applicable from 1998.

¹⁷ Minimum converted/organic unit size 40 standard business units (SBU) and minimum total farm size 120 SBU.

PT ¹⁸ Maximum areas crop-related: annual crops and olives 150 ha, non-irrigated orchards 80 ha, irrigated orchards 50 ha (limits no longer applicable from 1998).

¹⁹ Minimum areas: annual crops 0.5 ha, perennial crops 1 ha, protected crops 0.1 ha (protected cropping excluded from 1998).

SE ²⁰ Indirectly through restrictions on fodder purchases. Maximum payment limits of 3 900 SEK (450 ECU)/ha apply. ²¹ Minimum payment per unit 1 000 SEK (115 ECU).

²² Stocking rate limit not specific to organic farms.

CH ²³ Maximum limit 100 000 CHF (60 827 ECU) under discussion for 1998. ²⁴ Minimum limit 1.5 ha for horticulture. ²⁵ Stocking rate limit 3.0 LU/ha under water protection law, 2.5 LU/ha under organic production standards.

CZ ²⁶ 1998 LFA organic farming scheme.

NO ²⁷ Maximum and minimum payment levels per farm apply, details not supplied. ²⁸ Stocking rate limits apply generally to organic and conventional farms, details not supplied.

(ECU currency conversions at average rate for 1997 for current schemes, or last appropriate year for previous schemes)

Table 2-6: Eligible crop and additional environmental or other requirements in organic farming support schemes

Restrictions	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU ¹⁷	NL	PT	SE	CH	CZ	NO
Permanent pasture excluded	- ¹	-	-	✓	-	✓	-	-	✓ ¹¹	-	- ¹⁶	✓	- ¹⁹	✓	✓	-	-	-
Set-aside land excluded	✓	-	✓	✓	nd	-	-	-	- ¹²	-	- ¹⁶	-	-	nd	✓	-	-	na
Compulsory environmental protection scheme combination	-	-	-	-	-	✓ ⁹	-	-	-	✓ ¹⁴	-	-	-	-	-	-	-	✓ ²³
Additional environmental constraints	✓ ²	-	✓ ⁵	✓ ⁷	-	✓ ⁹	-	(✓) ¹⁰	✓ ¹³	-	-	✓ ¹⁸	-	-	-	✓ ²¹	-	✓ ²⁴
Other constraints	✓ ³	✓ ⁴	- ⁶	-	✓ ⁸	-	-	-	-	✓ ¹⁵	- ¹⁶	✓	-	✓ ²⁰	-	-	✓ ²²	✓ ²⁵

Source: own data

✓ = yes, (✓) = limited requirement, - = no, nd = no data, na = not applicable

AT ¹ Fodder area covered by livestock reduction schemes excluded. ² Prohibition of readily-soluble, chloride-based fertilisers (e.g. KCl) and sewage sludge/composts; erosion control in fruit and wine production: at least 10 months ground cover, including winter periods, or terracing; maintenance of landscape elements.

³ Partly perforated floors prohibited for calves, pigs, lambs, pullets, and table birds; silage must be supplemented by hay in ruminant diets.

BE ⁴ At least 50% of income from farming and more than 50% of labour time devoted to farming.

DE ⁵ General prohibition on use of sewage sludge and conversion of permanent grassland to arable land. ⁶ Some *Länder* have additional constraints.

DK ⁷ Applicable to all organic and conventional farms: rotation/fertiliser plans required; >65% of fields must be covered with crops until at least 20th October; nutrient application restricted according to manure type and crop requirements

ES ⁸ Restrictions indicated but no details of eligible crop restrictions and other requirements supplied.

FI ⁹ Compulsory participation in General Agricultural Environment Protection Scheme (GAEPS).

GB ¹⁰ Additional environmental requirements included as part of UKROFS organic farming standards.

GR ¹¹ All grassland excluded (organic livestock production not recognised). ¹² Rotational set-aside payable at rate for following crop. ¹³ Environmental management plan diary required.

IE ¹⁴ Compulsory participation in Rural Environment Protection Scheme (REPS). ¹⁵ Only producers of crops and livestock for human consumption eligible.

IT ¹⁶ Generally, there are no cropping or additional constraints, although some regions support only horticultural production and others exclude permanent or non-rotational grassland. A few impose additional husbandry or environmental constraints, notably Emilia Romagna.

LU ¹⁷ No details on new 1998 organic farming scheme. ¹⁸ Countryside stewardship scheme: hedges and trees on grassland must be conserved; no further draining or conversion of grassland to arable; soil analysis required as part of monitoring; maximum limits on cereals (80%) and maize (70%) as proportion of arable land.

NL ¹⁹ Grassland and fodder crops initially excluded, permitted since 1996

PT ²⁰ In some regions, rules have been interpreted that products must be marketed as organic to qualify. From 1998, period of eligibility for higher-rate conversion payments can be extended

CH ²¹ Additional environmental constraints generally part of environmental cross compliance requirements, including balanced nutrient budgets, rotational constraints, minimum 5% of farm as ecologically diversified area, max. copper use, soil protection, water protection etc.

CZ ²² No debts to government.

NO ²³ 1994-1997 continuing organic farming support included in arable/cultural landscape programme. ²⁴ Restrictions on nutrient inputs. ²⁵ Marketing plan required.

2.2.3.5 Training and/or advice provided

EC Reg. 2078/92 makes specific provision for training and demonstration in relation to good organic farming practice. Just over half the EU member states have taken advantage of this (Table 2-7). Austria, Finland and Portugal have compulsory training programmes for organic farming, while Ireland requires farmers to pursue a general environmental training course. Some countries, such as the Netherlands and Belgium, have established organic demonstration farm networks. Where training is provided, on a group or one-to-one basis as advice, there is often an element of aid towards the costs of the programme. Finland covers the costs of preparing the compulsory environmental management plan. In Ireland, the producer has to pay for this. In many cases (e.g. GB, DE, DK) training and advisory provision is made using funding from other sources. This topic is dealt with more fully in Sections 7 and 8 of this report.

2.2.3.6 Adjustments made to scheme

Most countries have made changes to the original agri-environment schemes, (the exceptions being AT, BE, most of DE, GB, and most of IT). In Great Britain, Finland and in Ireland (for horticultural producers only) the schemes are currently under review. In seven countries (DK, FR, NL, PT, CH, NO and some parts of DE), payment rates have been increased to encourage greater participation, while in Finland, in other German *Länder* and in Spain, payment rates have been reduced because of higher than expected uptake and/or budgetary pressures.

In some cases, changes to conditions have been made. In Switzerland, the area allocated to extensive management has been increased. Finland did not permit new converters during 1997 due to budgetary pressures. In Greece, new potentially combinable agri-environment schemes are in preparation. In the Netherlands, temporary grass and fodder crops became eligible for support in 1996, leading to a substantial increase in uptake by dairy farmers.

Table 2-7: Training and advisory support under EC Reg. 2078/92

Information provision	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Compulsory course attendance	✓	-	-	-	-	✓	-	-	-	(✓) ⁹	-	-	-	✓ ¹³	-	(✓) ¹⁶	-	-
Optional course attendance	-	✓	-	✓	✓	-	-	-	-	-	✓ ¹⁰	-	-	-	✓	✓	-	✓
Length (hours)	15 ¹	nd	-	nd	nd	5	-	-	-	nd	30	-	-	nd	nd	15	-	nd
Financial support for participation in training	-	-	-	-	-	-	-	-	-	-	✓ ¹⁰	-	(✓) ¹²	-	-	-	-	-
Financial support for provision of training courses	✓	-	(✓) ³	✓ ⁴	✓	✓	-	-	-. ⁸	-	✓ ¹⁰	-	(✓) ¹²	✓	✓ ¹⁵	(✓) ¹⁷	-	✓
Demonstration/advisory projects	-	✓ ²	(✓) ³	✓	-	✓ ⁵	(✓) ⁶	(✓) ⁷	-	-	(✓) ¹¹	-	(✓) ¹²	(✓) ¹⁴	✓ ¹⁵	(✓) ¹⁷	-	✓

Source: own data

☐ = yes, (☐) = limited applicability, - = not required/not applicable, nd = no data

AT ¹ Up to 5 hours may be field visits.

BE ² Demonstration farms in each region.

DE ³ In some regions only, usually not 2078/92 schemes.

DK ⁴ Development of information and educational materials (40% of additional costs)

FI ⁵ Only certain local communities and projects support advice costs, otherwise main 2078/92 provision for advice is preparation of farm environmental plans.

FR ⁶ In some cases a preliminary analysis has been funded by the local administration.

GB ⁷ Organic Conversion Information Service (help-line and free advice), but not 2078/92 supported - see Section 7 for details.

GR ⁸ Training course scheme in preparation.

IE ⁹ Training compulsory for Rural Environment Protection Scheme only.

IT ¹⁰ In some regions only organisation of short courses (30-50 hours) and participation are supported under 2078/92. ¹¹ Most regions provide advice through Agencies for the Development of Agriculture or local farmers unions.

NL ¹² General support for agri-environmental training and demonstration projects (see Sections 7 and 8).

PT ¹³ New converters must attend training course within 6 months of application unless organic for more than one year. ¹⁴ General support available for agri-environmental training courses (including organic farming) and demonstration activities.

SE ¹⁵ Compensation to the Swedish Board of Agriculture for administration costs for running training/information and demonstration programmes

CH ¹⁶ Training required under organic production standards and by one canton. ¹⁷ Support for advice and training only at canton level.

Table 2-8: Adjustments made to current organic farming support schemes since implementation

Adjustments made	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU ¹⁷	NL	PT	SE	CH	CZ ²⁷	NO
Increased payment rates	-	-	(✓) ¹	✓ ²	-	-	✓ ⁷	- ⁸	✓ ⁹	- ¹²	(✓) ¹⁵	na	✓ ¹⁸	✓ ^{20,21}	-	✓ ²⁵	na	✓ ²⁸
Reduced payment rates	-	-	(✓) ¹	-	(✓) ⁴	✓ ⁵	-	-	(✓) ¹⁰	- ¹²	- ¹⁵	na	-	-	-	-	na	-
Changes to conditions	-	-	(✓) ¹	-	(✓) ⁴	-	-	- ⁸	✓ ¹¹	(✓) ¹³	(✓) ¹⁵	na	✓ ¹⁹	✓ ²²	✓ ²³	✓ ²⁶	na	✓ ²⁹
Other	-	-	-	✓ ³	-	✓ ^{5,6}	-	-	-	✓	-	na	-	-	(✓) ²⁴	-	na	-
None	✓	✓	(✓) ¹	-	-	-	-	✓ ⁸	-	-	✓	na	-	-	-	-	na	-
Currently under review	-	-	-	-	-	✓	-	✓ ⁸	-	(✓) ¹⁴	(✓) ¹⁶	na	-	-	-	-	na	-

Source: own data

☒ = yes, ☒ = limited applicability, - = no, na = not applicable

DE ¹ Some *Länder* have modified payment rates, either up or down, and conditions depending on levels of uptake and budgetary pressures.

DK ² Higher rate conversion payments introduced for arable (no milk quota) and pig farms. ³ From 1997, organic farming is the only scheme available outside ESAs.

ES ⁴ Minimum area requirements reduced from 1998. Due to high uptake levels, Castilla y León modified olive and vine payment levels and grassland eligibility conditions in 1996 (see Lampkin et al. (1999).

FI ⁵ New converters not eligible in 1997 due to higher than expected uptake. Conversion support was reinstated in 1998 but payments during conversion reduced to 166 ECU/ha (excl. GAEPS payment) across whole country. ⁶ Term of notice to quit scheme increased from 2 to 4 years.

FR ⁷ Payments increased on average by 15% in 1998 as part of action plan for organic farming.

GB ⁸ Increased payments planned for 1999 (following review) along with removal of 300 ha maximum limit.

GR ⁹ Payments for most crops increased in 1998. ¹⁰ Payments for a few crops reduced in 1998. ¹¹ Eligibility conditions relaxed in 1998.

IE ¹² Payments fixed in ECU (a) - IEP rates adjusted annually to reflect exchange rate changes. ¹³ REPS conditions amended in 1996 and 1998. ¹⁴ Conditions for horticultural producers under review.

IT ¹⁵ Payments fixed in ECU (a) - ITL rates adjusted annually to reflect exchange rate changes. In addition, payments and conditions have been modified in a few regions (no details available). ¹⁶ Payments and conditions currently under review in Emilia-Romagna and Marche.

LU ¹⁷ Not applicable as current organic scheme first implemented in 1998.

NL ¹⁸ Increased payment rates for conversion of horticultural crops from 1998. ¹⁹ Grassland and fodder crops included from 11/1996.

PT ²⁰ Payments fixed in ECU (a) - PTE rates adjusted annually to reflect exchange rate changes. ²¹ From 1998 the higher rate conversion payments apply for longer where > 70% of production marketed as organic. ²² Modulation percentages increased and maximum area limits removed, protected cropping no longer eligible.

SE ²³ New payments introduced for fruit and berries in 1998. ²⁴ Some minor modifications relating to tenancies and animal husbandry have been made.

CH ²⁵ Payment rates increased, partly to maintain position relative to integrated farming payments which had also been increased. ²⁶ 5% of land must be managed extensively in addition to 5% for nature conservation.

CZ ²⁷ Not applicable as current organic scheme first implemented in 1998.

NO ²⁸ Payment rates increased and differentiated by crop type. ²⁹ Length of conversion period and continued organic farming requirement modified. Part farm conversions permitted. Compulsory staged conversion requirement abandoned after one year (1995).

2.2.4 Rates of payment for organic farming options under 2078/92

Under EC Regs. 2078/92 and 746/96, the payments made need to be justified in terms of incomes forgone or additional costs incurred, with the possibility of an additional 20% as an incentive payment. In exceptional circumstances, the incentive element may be increased. Other factors, such as the environmental benefits to be expected, or costs incurred before the scheme was introduced, can not be included in the calculations.

The maximum rates eligible for co-financing by the EU under EC Reg. 2078/92 and typical payment rates for land in the first two years of conversion for different crop types are summarised in Table 2-9 (Table 2-10) shows typical rates for supporting continued organic farming on the same basis). The EU covers 50% of the costs of support (75% in the so-called Objective 1 regions, (see Table 5-1 for a list of regions) up to the specified co-financing limits. Member States can pay more than the specified co-financing limits if the payment levels can be justified in the terms permitted under EC Reg. 746/96, but they must finance 100% of the difference themselves. (The co-financing rates shown are 20.7% higher than the original values in EC Reg. 2078/92 following revaluation of the green (agricultural) ECU rates in 1996).

Payment rates vary widely between countries, and within countries where regional variations exist. In Finland and Ireland, where combination with environmental protection schemes is compulsory, the combined payments lead to relatively high overall values.

In most countries, payments for continuing organic farming are lower than for payments for conversion. This is intended to recognise that there are particular costs of conversion and that farms often cannot qualify for organic premium prices until full organic status has been achieved. However, some countries, such as Austria, have adopted a policy of not offering higher payments for conversion, so as not to encourage entrants who are solely interested in the available subsidies (Posch, 1997). CH, CZ, GR, SE and most regions in IT also do not offer higher payments for conversion.

In a limited number of cases, such as Portugal and more recently Austria, payments are modulated, with payments reducing as the area supported increases. In other cases, such as the United Kingdom and the Netherlands, payments are higher in the earlier years and decline towards the end of the period, with the clear implication that the support payments are not to be considered as continuing indefinitely.

To some extent, the level of payment can be linked to rates of uptake (see Tables 2-12 and 2-13), with countries such as Austria and Finland which offer high rates of payment experiencing significant growth, while the lower rates in the United Kingdom and France have proved less attractive. However, the relationship is not consistent for all countries and other factors, such as market demand and availability of information, are also important. Perhaps more significant are reports from several countries that the types of farms converting are skewed

towards mixed cropping and moderate to low intensity livestock farms, particularly milk production. Specialist cropping farms (arable and horticulture) as well as intensive pig and poultry producers, seem to be less attracted by available payment rates. To address this problem, Denmark introduced in 1997 a supplement of 232-268 ECU/ha/year for 3 years for arable farms without milk quota and pig farms.

Table 2-9: Typical 1997 payment rates for land in first two years of conversion (ECU/ha/year)

	Cereals/ AAP ¹	Other arable	Grass/ forage	Vege- tables	Intens. hortic.	Olives/ vines	Fruit ext./int.
2078/92 max²	181/423 ³	302/423 ³	302/423 ³	302/423 ³	302/423 ³	483/845	845-1208
AT⁴	326	326	217	434	723	na/723	723
BE	180	299	299	299	299	na	299/838 ⁵
DE⁶	127-153	127-153	127-153	127-153	127-153	611-713	611-713
DK⁷	140	87	87 ⁸	140	140	na	140
ES	121 ⁹	151 ¹⁰	90	241	452 ¹¹	271	211/362 ¹²
FI¹³	280-498	498-600	498-600 ¹⁴	532-600	532-600	na	987-1056
FR¹⁵	151	212	106	151	151	454/151	711
GB¹⁶	101	101	101	101	101	na	101
GR	182	304	304	304	304	see ¹⁷	852/1217 ¹⁸
IE¹⁹	337	337	398	398	398	na	398
IT²⁰	185	309	309	309	309	494/864	864/1235
LU²¹	173	173	173	173	173	na	173
NL	226	226	136 ²²	543	837	na	837
PT	217 ²³	362 ²⁴	na ²⁵	362 ²⁴	362 ²⁶	217/578	434/723 ²⁷
SE²⁸	104/185	104/185	173/254 ²⁹	104/185	104/185	na	104/185
EU 15³⁰	202	248	219	287	340	340/517	505/619
CH³¹	852	852	322	1095	1095	1095	1095
CZ³²	56	56	56	56	56	56	56
NO³³	374	374	249	374	374	na	374

Source: own data

Currency conversions based on average ECU (b) rates for 1997 (see Table 0-1).

¹ AAP = crops eligible for arable area payments

² 2078/92: co-financing maxima from 1996. ³ Higher rate applies if Art. 2.1a/b and 2.1d measures combined.

AT ⁴ Normally combined with basic agri-environmental support payment of ca. 50 ECU/ha (not included).

BE ⁵ Fruit: ext. = high-stemmed, int. = low-stemmed.

DE ⁶ Ranges represent variations in payments between Länder. Nordrhein-Westfalen, Rheinland-Pfalz, Sachsen and Bayern generally give higher levels of support for arable and grassland (204-280 ECU/ha), perennial crops (755-1010 ECU), and, except Rheinland-Pfalz, vegetables (252-505 ECU). Conversion payments are usually for five years, at levels typically 20% higher than continuing or similar. Some Länder shorten the period to, or give an additional supplement for, the first two years.

- DK ⁷ Higher rate (140 ECU) applies to crops eligible for nitrogen reduction scheme. Lower rate (87 ECU) applies to ineligible crops with low N requirement. ⁸ Permanent grass excluded. A 30 ECU/ha supplement is payable in ESAs. From 1997, a supplement of 232-268 ECU/ha/year for 3 years is payable on arable farms without milk quota and on pig farms.
- ES ⁹ Dryland arable. ¹⁰ Irrigated arable. ¹¹ Protected cropping. ¹² fruit: ext.=dryland, int.=irrigated.
- FI ¹³ Includes payment for compulsory agri-environment protection scheme (GAEPS). Ranges represent variations according to region (extensive lowest, arable areas highest). Conversion payments not available in 1997 for new entrants, payments restored but reduced by 68-136 ECU/ha in 1998.
- ¹⁴ Permanent grassland excluded (but eligible for other agri-environment payments).
- FR ¹⁵ Conversion payments for 2 years in the case of annual crops and 3 years for perennial crops. Organic management must be maintained for five years in total.
- GB ¹⁶ 20% of values shown in less favoured areas in England/Wales or rough grazing in Scotland/NIreland
- GR ¹⁷ Olives/vines: extensive olives 162, intensive olives 377, vineyards 808, table grapes 815, sultana raisins 655, Corinthian currants 707 ECU/ha (all with 4.5% supplement in ESAs). ¹⁸ Fruit: higher rate for citrus, lower for other.
- IE ¹⁹ Includes payment for compulsory agri-environment protection scheme (REPS). (Rates converted from green ECU(a) to IEP at 1/1/97 exchange rates).
- IT ²⁰ Some regional variations. (Rates converted from green ECU(a) to ITL at 1/1/97 exchange rates).
- LU ²¹ Figures relate to new 1998 organic farming scheme
- NL ²² 5 year average; actual values decline in equal annual steps from 181 to 91 ECU/ha.
- PT ²³ Dryland arable. ²⁴ Irrigated arable. ²⁵ Grassland excluded. ²⁶ Protected cropping. ²⁷ Fruit: ext.=dryland, int. = irrigated. (Rates converted from green ECU(a) to PTE at 1/1/97 exchange rates.)
- SE ²⁸ Lower rate zone 1, higher rate zone 2. ²⁹ Grassland/fodder crops rate applies if livestock managed organically (69 ECU/ha supplement), if not same rate as other crops. Permanent grassland excluded.
- EU15 ³⁰ Unweighted average.
- CH ³¹ 1 217 ECU/farm/year supplement if whole farm fully converted.
- CZ ³² Data relate to new 1998 LFA organic farming scheme
- NO ³³ Conversion payment of 748 ECU/ha spread over 2 years for annual crops, 3 years for grass.

Table 2-10: Typical 1997 payment rates for fully (continuing) organic land (ECU/ha/year)

Country	Cereals/ AAP ¹	Other arable	Grass/ forage	Vege-tables	Intens. hortic.	Olives/ Vines	Fruit Ext./Int.
2078/92 max²	181/423 ³	302/423 ³	302/423 ³	302/423 ³	302/423 ³	483/845	845-1208
AT ⁴	326	326	217	434	723	na/723	723
BE	111	222	173	296	296	na	740 ⁵
DE ⁶	102-122	102-122	102-122	102-122	102-122	509-611	509-611
DK ⁷	114	60	60 ⁸	114	114	na	114
ES	72 ⁹	90 ¹⁰	54	145	271 ¹¹	163	127/217 ¹²
FI ¹³	162-312	264-414	264-414 ¹⁴	414	414	na	869
FR ¹⁵	0	0	0	0	0	0	0
GB	0	0	0	0	0	na	0
GR	182	304	304	304	304	see ¹⁶	852/1217 ¹⁷
IE ¹⁸	246	246	246	276	276	na	276
IT ¹⁹	185	309	309	309	309	494/864	864/1235
LU ²⁰	148	148	148	148	148	na	148
NL ²¹	136	136	136	136	136	na	136
PT	181 ²²	301 ²³	na ²⁴	301	301 ²⁵	181/482	362/603 ²⁶
SE ²⁷	104/185	104/185	173/254 ²⁸	104/185	104/185	na	104/185
EU 15 ²⁹	169	211	193	241	273	274/590	455/537
CH ³⁰	852	852	322	1095	1095	1095	1095
CZ ³¹	56	56	56	56	56	56	56
NO	187	187	137	187	187	na	187

Source: own data

Currency conversions based on average ECU (b) rates for 1997 (see Table 0-1).

¹ AAP = crops eligible for arable area payments

² 2078/92: co-financing maxima from 1996. ³ Higher rate applies if Art. 2.1a/b and 2.1d measures combined.

AT ⁴ Normally combined with basic agri-environmental support payment of ca. 50 ECU/ha (not included).

BE ⁵ Fruit: ext. = high-stemmed, int. = low-stemmed (both same rate).

DE ⁶ Ranges represent variations in payments between Länder. Nordrhein-Westfalen, Rheinland-Pfalz, Sachsen and Bayern generally give higher levels of support for arable and grassland (154-230 ECU/ha), perennial crops (655-705 ECU), and, except Rheinland-Pfalz, vegetables (227-352 ECU).

DK ⁷ Higher rate (114 ECU) applies to crops eligible for nitrogen reduction scheme. Lower rate (60 ECU) applies to ineligible crops with low N requirement. ⁸ Permanent grass excluded. A 30 ECU/ha supplement is payable in ESAs. From 1997, a supplement of 232-268 ECU/ha/year for 3 years is payable on arable farms without milk quota and on pig farms.

ES ⁹ Dryland arable. ¹⁰ Irrigated arable. ¹¹ Protected cropping. ¹² fruit: ext.=dryland, int=irrigated.

FI ¹³ Includes payment for compulsory agri-environment protection scheme (GAEPS). Ranges represent variations according to region (extensive lowest, arable areas highest). ¹⁴ Permanent grassland excluded (but eligible for other agri-environment payments).

FR ¹⁵ Organic management must be maintained for five years in total if conversion payments received. Three regions provide support for continuing organic farming.

GR ¹⁶ Olives/vines: extensive olives 162, intensive olives 377, vineyards 808, table grapes 815, sultana raisins 655, Corinthian currants 707 ECU/ha (all with 4.5% supplement in ESAs). ¹⁷ Fruit: higher rate for citrus, lower for other.

- IE ¹⁸ Includes payment for compulsory agri-environment protection scheme (REPS). (Rates converted from green ECU(a) to IEP at 1/1/97 exchange rates).
- IT ¹⁹ Some regions pay 5-10% less following 2 year conversion period. (Rates converted from green ECU(a) to ITL at 1/1/97 exchange rates).
- LU ²⁰ Figures relate to new 1998 organic farming scheme
- NL ²¹ 5 year average; actual values decline in equal annual steps from 181 to 91 ECU/ha.
- PT ²² Dryland arable. ²³ Irrigated arable. ²⁴ Grassland excluded. ²⁵ Protected cropping. ²⁶ Fruit: ext.= dryland, int. = irrigated. (Rates converted from green ECU(a) to PTE at 1/1/97 exchange rates.)
- SE ²⁷ Lower rate zone 1, higher rate zone 2. ²⁸ Grassland/fodder crops rate applies if livestock managed organically (69 ECU/ha supplement), if not same rate as other crops. Permanent grassland excluded.
- EU15 ²⁹ Unweighted average, excluding FR and GB.
- CH ³⁰ 1 217 ECU/farm/year supplement if whole farm fully converted.
- CZ ³¹ Data for 1998 LFA organic farming scheme.

2.2.5 Other agri-environment measures implemented

Details of the full range of agri-environment measures implemented in each country can be found in Deblitz and Plankl (1997). The main requirements and typical payments for these measures are summarised in Lampkin et al. (1999), together with details of their relationship to the organic farming measures and data on uptake levels.

2.2.5.1 Relationship between organic farming and other agri-environment schemes

The other agri-environment schemes may be classified into four groups (Table 2-11): those where combination is either optional or compulsory, and those that are either competitive (such as integrated crop management) or incompatible, at least on the same piece of land (e.g. 20-year set-aside, see individual country sections in Lampkin et al. (1999) for further details).

Two countries (Finland and Ireland) require participation in their general agri-environment protection schemes as a condition of eligibility for the organic farming support scheme.

All countries except Portugal allow combinations with some agri-environment options such as preservation of rare breeds, environmentally and nitrate sensitive area schemes, and habitat protection schemes, subject to the general principle of avoiding double payment for individual objectives. Where schemes of this type are combined, payments may be combined, possibly subject to an overall limit per hectare, or only the higher of the two payments will be made. In a few cases, reduced rates are specified for combinations with organic farming.

In several countries (AT, DE, FR, IT, PT, CH and CZ), input reduction measures relating to arable and horticultural crops, such as integrated crop management, have proved to be particularly competitive with the organic farming schemes. This is because payment rates for these schemes are high relative to organic farming when compared with the restrictions imposed. In some cases, payments may even be similar. The effect may be exacerbated in countries where organic management of livestock is required (e.g. Austria).

Table 2-11: Relationship of organic farming schemes to other agri-environmental measures

	Combinable measures	Competitive measures	Incompatible measures	Most popular measures
AT	Basic support (normally combined), extensive grassland production, mowing/grazing management and erosion control measures, rare breeds. Maximum payments for combined schemes: arable 615 ECU/ha, grassland 687 ECU/ha, perennial crops 1 013 ECU/ha. Long-term set-aside and abandoned forest schemes combinable on separate areas of same holding.	Input reduction and integrated production schemes, some of which are defined in terms of 2092/91 permitted inputs (Annex II).	Competitive schemes, management of ecologically valuable areas and 'eco-point' scheme	Basic support and stabilisation of crop rotation
BE¹	Only in Wallonie. Combinable with most options except input reduction measures, continuing extensive livestock production, winter green cover.	Input reduction measures <i>not</i> competitive with organic	-	Maintenance of hedgerows and woodland strips
DE	Specific nature protection schemes, field margins and 20-year set-aside – payment may be additional, usually only highest rate paid. Endangered breeds and basic support in some <i>Länder</i> .	Input reduction in arable crops (integrated and zero chemical farming systems)	Meadow and pasture, reduced stocking, abandoned land	Basic support, meadows and pastures, arable crops
DK	Normally nitrate reduction scheme ² and ESA supplement as options within organic scheme. Also (in ESAs only) extensive grassland management, ryegrass in cereal fields, 20 year set-aside, maintenance of nature areas.	None as alternatives restricted to ESAs and uptake of reduced pesticide measures is low	Competitive measures, unsprayed buffer zones	Organic farming, extensive grassland management
ES	All horizontal measures (extensive cereal systems, preservation of local breeds and agri-environmental training) and all zonal measures (National Parks, RAMSAR, ZEPAS, CCAA areas) with some exceptions.	Possibly integrated crop protection option in CCAA areas	Flora/ fauna in wetlands, integrated crop protection	Extensive cereal systems; Irrigation water restriction in wetlands

- = none

BE ¹ Agri-environment measures in Flanders (other than organic farming and demonstration farms) not yet implemented

DK ² Sowing ryegrass as catch crops for N, conversion of arable land to permanent pasture, restricted N-inputs, but excluded from other options such as unsprayed field margins, and reduction of N use in environmentally sensitive areas

Table 2-11: Relationship of organic farming schemes to other agri-environmental measures (cont.)

	Combinable measures	Competitive measures	Incompatible measures	Most popular measures
FI	General Agricultural Environment Protection Scheme ³ compulsory. All except one supplementary measure optional including improved efficiency of manure nutrient use, liming of acid sulphate soils, creation of riparian zones, landscape and habitat management, and preservation of local breeds	-	Extensification for ground water protection (no pesticides, low fertiliser inputs)	GAEPS has very high uptake. Of the supplementary measures, organic farming is most popular
FR	Most national and regional programmes including grassland extensification scheme, conversion of arable land to grassland, reduction of stocking density, preservation of rare breeds, local level programmes and sustainable agriculture plans.	Input reduction scheme - fewer requirements but payment rates similar to organic cereals and grassland, not time limited.	20-year set-aside	Grassland extensification scheme, local level programmes and input reduction scheme.
GB	All measures including ESAs, countryside stewardship, nitrate sensitive areas, habitat, moorland, arable extensification, and countryside access schemes	Payment rates for alternative schemes often higher relative to requirements, and awareness of combinability is low.	-	Environmentally sensitive areas and countryside stewardship
GR	All schemes including nitrate reduction, long-term set-aside, and potentially new schemes ⁴ such as rare breeds, soil conservation, livestock extensification, landscape and habitat conservation.	Possibly nitrate reduction scheme in Thessaly (cotton focus)	-	Nitrate reduction and long-term set-aside

- = none

FI ³ GAEPS requirements include environmental management plan, restrictions on fertiliser use, training in spray use, establishment of field margin filter strips around water courses, increased plant cover for arable land in winter, maintenance of cultivated landscape and its natural biodiversity.

GR ⁴ Currently only organic farming and nitrate reduction schemes in force.

Table 2-11: Relationship of organic farming schemes to other agri-environmental measures (cont.)

	Combinable measures	Competitive measures	Incompatible measures	Most popular measures
IE	Rural Environment Protection Scheme ⁵ compulsory. All supplementary measures optional, including natural heritage areas, rejuvenation of degraded areas, preservation of local breeds, long term set-aside and public access/recreation activities.	-	-	REPS
IT	Measures including reduced inputs, integrated crop production, extensification, reduced stocking density, rural areas and landscape, rare breeds, upkeep of abandoned land, if on different parts of same farm	Reduced input and integrated crop management.	Long-term set-aside and public access incompatible on same parcel of land	A1/A2 (reduced inputs) and D1 (maintenance of rural areas and landscape)
LU	Organic farming scheme available from 1998. Countryside stewardship and extensification schemes used by organic farmers.	nd	nd	Countryside stewardship
NL	All schemes (management agreements, demonstration farms, training, public access, beef extensification).	-	Beef extensification if organic forage supported.	Management agreements, training courses
PT	Not combinable with other schemes except training	Integrated farming measures, extensive forage	na	Traditional, extensive multi-crop, forage and olive prod.

- = none, na = not applicable, nd = no data

IE ⁵ REPS requirements include environmental management plan, fertilising and manure storage plan, grassland management plan (including winter housing of livestock), protection of water bodies, retention of wildlife habitats, maintenance of field boundaries and features of historical/archaeological interest, no agri-chemicals near hedgerows, ponds and streams and unsprayed field margins for arable crops.

Table 2-11: Relationship of organic farming schemes to other agri-environmental measures (cont.)

	Combinable measures	Competitive measures	Incompatible measures	Most popular measures
SE	Most combinable, including maintenance of open landscape, conservation of biodiversity and cultural heritage of farming landscapes, and use of catch crops. Other schemes such as specific habitat conservation schemes and establishment of permanent grassland combinable, but not same land.	-	-	Open landscape; con-servation of bio-diversity and cultural heritage of farming landscapes; organic farming
CH	Management of semi-natural habitats (various programmes for grassland, hedges and shrubs, and high-stem orchards), free-range livestock production and animal welfare-friendly housing.	Integrated farming	Integrated farming	Integrated farming
CZ	Other LFA agri-environment measures introduced in 1998: grassland management, beef breeds, sheep production, conversion of farmland to forest	Integrated farming (previous scheme)	nd	nd
NO	Cultural landscape ⁶ , building restoration, soil conservation and investment support for environmental improvement measures	No support for integrated or other alternative agriculture	Reduction of erosion in arable areas.	Cultural landscape and investment support

Source: own data; Deblitz and Plankl (1997).

- = none; nd = no data

NO ⁶ From 1994 to 1997, continued organic farming support was part of the arable and cultural landscape scheme. Many of the general agri-environmental requirements therefore applied to organic farmers.

In France, competitive input reduction schemes are not time limited in the same way as payments for conversion to organic production. In Portugal, extensive grassland management is also a competitive option as grassland is not supported under the organic scheme and combinations are not permitted. In the United Kingdom, alternative schemes appear competitive because of higher payment rates, but awareness that the schemes are in fact combinable is low.

Long-term set-aside and other non-productive schemes (e.g. nature conservation, public access) are sometimes incompatible and sometimes combinable on different parts of the holding. In general, competitive input reduction schemes are also incompatible. In the Netherlands, the new beef extensification scheme is incompatible with organic farming only if organic forage production is supported.

As far as the most successful (in terms of uptake) agri-environment schemes are concerned, the picture is very variable. The basic support schemes in AT, DE, FI and IE have proved particularly popular, while organic farming has been one of the most popular choices in DK, FI, IT and SE. In FR, DK, ES and PT, traditional, extensive grassland and crop management have proved popular, while in BE, GB, LU, NO, IT, NL the emphasis has been on countryside stewardship and nature conservation schemes. Integrated farming has been most successful in Switzerland, France and Italy.

2.2.5.2 Local schemes

In a number of countries, a diverse range of local agri-environment schemes has been implemented, which run in parallel to the main national/regional schemes. Some of these include support for organic farming. Examples include communal support schemes in Germany (e.g. Hamburg, Korntal-München amongst others in Germany (Thomas, 1995), cantonal support schemes in Switzerland, and Lelystad in the Flevoland Obj. 1 region of the Netherlands). In some cases the local authorities provide supplementary support, in others they require or encourage organic management on their own land. Some further details of these schemes can be found in the individual country sections in Lampkin et al. (1999).

Of particular interest is the growth of organic farming schemes operated by water companies in water catchment areas. In Luxembourg, the Redange Municipality supports conversion to organic farming (220 ECU/ha) for water protection purposes. These payments are combinable with the national countryside stewardship scheme. In Germany, several water companies (for example Augsburg, Dortmund, Göttingen, Leipzig, München, Osnabrück and Regensburg) operate support schemes for organic farming either in their catchment areas or on their own land (AGÖL and BUND, 1997). It has been estimated that the costs of these support schemes are substantially lower than the costs of removal of nitrates and pesticides from water supplies (Fleischer and Schirmer, 1996).

In the United Kingdom, one water company is contracting management of its orchards out to an organic farmer and another is currently investigating the potential of a support scheme.

2.2.6 Uptake of organic farming and other agri-environment schemes

As part of this research, data have been collected on the uptake of organic farming support schemes as well as the overall agri-environment programme. Results for 1996 are presented in Tables 2-12 and 2-14 and for 1997 in Tables 2-13 and 2-15. More detailed time series data for 1993 to 1997 are contained in Foster and Lampkin (1999).

At the EU level, 3.9% of agri-environment scheme agreements up to 1997 related to organic farming (65 400 out of 1.7 million). Organic farming accounted for 5.1% of the land area covered by these agreements (1.3 Mha out of 25 Mha).

Uptake varies widely between countries, from less than 300 organic farming agreements in 1997 in BE, GB, NL and PT to more than 8 400 in Germany, 10 800 in Sweden, 17 000 in Italy and 18 500 in Austria. For organic farming as a percentage of all agri-environment agreements, France and the Portugal were lowest with below 1.0%, whereas in DK, GR, IT, and SE over 10% of the agreements concerned the organic farming option.

A similar pattern of results can be seen from the land area data, with organic farming accounting for nearly half of the land area registered under agri-environment agreements in Denmark in 1997, but less than 3% in FR, GB and PT.

It should be noted that in 1996, 7 596 organic farms (319 485 ha) in Germany were still supported under the old extensification programme (EC Reg. 4115/88). Many of these are expected to transfer to agri-environment agreements as the old agreements expire, as can be seen from the increase in EC Reg. 2078/92 supported organic farming in Germany in 1997.

2.2.7 Public expenditure on organic farming support under agri-environment programmes

Estimated actual public expenditure on organic farming support (excluding administration and monitoring costs), from EU, national and regional sources under the agri-environment programme, totalled 186 MECU (excluding Ireland) in 1996, or 8.8% of the total expenditure on agri-environment programmes of 2112 MECU (Table 2-16). In 1996, a further 58 MECU was spent in Germany and 0.7 MECU in France on extensification support for organic farming (EC Reg. 4115/88).

Table 2-12: Number of certified and policy-supported organic farms, and total agreements for agri-environmental measures (end 1996)

Number of farms (1 000)	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	EU 15	CH	CZ	NO
Certified organic	19.43	0.23	7.35	1.17	2.16	4.45	3.85	0.87	1.07	0.70	17.28	0.02	0.66	0.25	2.71	62.19	3.72	0.19	0.95
Organic farming supported under agri-environment programmes	18.32	0.11	6.51	1.25 ³	0.69 ⁴	4.07	1.18	0.16	0.69	nd	9.30	na ⁶	0.21	0.17	8.27	50.94 ⁸	3.39	na ⁶	0.84
Total organic	19.43	0.23	14.11 ²	1.17	2.16	4.45	3.85	0.87	1.07	0.70	17.28	0.02	0.66	0.25	8.27	74.50	3.72	0.19	0.95
Total agri-environment agreements ¹	446.2	1.23	490.0	7.45	25.0 ⁵	89.55	173.8	18.86	1.84	19.65	77.19	na ⁶	6.82	121.7	71.07	1 550.3	38.3 ⁹	na ⁶	nd
Agri-environmental policy supported organic as % of total	4.11	8.70	1.33	16.83	2.75	4.54	0.68	0.86	37.47	nd	12.05	na ⁶	3.06	0.14	11.65	3.29	8.8	na ⁶	nd
Total organic as % of all farms	7.28	0.30	2.33	1.58	0.16	2.32	0.48	0.35	0.13	0.44	0.69	0.67	0.55	0.05	8.99	0.95	5.74	nd	1.34

Source: own data, certification organisations, national agricultural administrations, European Commission

na = not applicable, nd = no data available

¹Double-counting will exist where schemes are combinable

DE ² Includes 7 596 farms under EC Reg. 4115/88 extensification programme 'avoidance of artificial inputs'.

DK ³ Slightly higher value than certified and total organic probably due to different year ends and administrative time lags.

ES ⁴ Own data collected direct from CC AA.

ES ⁵ Own estimates based on three Ministry of Agriculture sources (see Lampkin et al. (1999))

LU/

CZ ⁶ Agri-environment programme and organic farming scheme not yet implemented.

SE ⁷ Own estimate

EU ⁸ Excluding Ireland (no data)

CH ⁹ Integrated and organic only, no data on other Art. 31b schemes.

Table 2-13: Number of EC Reg. 2078/92-supported organic farms, and total agreements for agri-environmental measures (end 1997)

Number of farms (1 000)	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	EU 15
Organic farming supported under agri-environment programme	18.5 ²	0.15	8.42	1.45	1.5 ³	4.16	1.55	0.30	0.89	nd	17.12	na ⁴	0.27	0.23	10.87	65.40 ⁶
Total agri-environment agreements ¹	440 ²	1.82	559.2	7.98	30 ³	89.3 ₃	166.8	22.32	2.40	28.57	121.7	1.91	7.39	132.9	75.0 ⁵	1 687.4
Agri-environmental policy supported organic as % of total	4.20	7.95	1.51	18.21	5.00	4.66	0.93	1.33	37.0 ₆	nd	14.07	na	3.59	0.17	14.49	3.88

Source: national agricultural administrations, European Commission

na = not applicable, nd = no data available

¹ Double-counting will exist where schemes are combinable

AT ² Own estimates based on 1996 values

ES ³ Own estimates based on three Ministry of Agriculture sources (see Lampkin et al. (1999))

LU ⁴ Policy to support organic farming introduced in 1998

SE ⁵ Own estimate

EU ⁶ Excluding Ireland (no data)

Table 2-14: Area of certified and policy-supported organic farmland, and total land in agri-environmental measures (end 1996)

Land area (1 000 ha)	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	EU 15	CH	CZ	NO
Certified organic	309.1	4.3	354.2	45.0	103.7	84.6	137.1	49.5	5.3	20.5	334.2	0.6	12.4	9.2	113.6	1 583.1	58.7	17.0	7.9
Organic farming supported under agri-environment programmes	248.4	2.7	156.3	30.2	25.0 ³	75.9	29.3	23.3	3.3	nd	162.2	na ⁴	3.5	7.3	162.3	929.7 ⁶	54 ⁷	na ⁴	7.9
Total organic	309.1	4.3	475.7 ²	46.2	103.7	84.6	137.1	49.5	5.3	20.5	334.2	0.6	12.4	9.2	162.3	1 754.6	58.7	17.0	7.9
Total agri-environment ¹	3 213	12.9	5 247	86.8	550 ³	1 988	5 658	1 209	12.3	652.3	1 025	na ⁴	36.1	517.1	1 600 ⁵	21 807	775 ⁸	na ⁴	na
Agri-environmental policy supported organic as % of total	7.73	21.03	2.98	34.86	4.55	3.82	0.52	1.92	26.5	nd	15.83	na ⁴	9.80	1.41	10.14	4.26	7.0	na ⁴	na
Total organic as % of all area	8.96	0.31	2.74	1.70	0.41	3.25	0.45	0.31	0.15	0.46	1.93	0.47	0.63	0.23	4.72	1.31	5.42	0.41	0.79

Source: own data, certification organisations, national agricultural administrations, European Commission

na = not applicable, nd = no data available

¹ Double-counting will exist where schemes are combinable

DE ² Includes 319 485 ha under EC Reg. 4115/88 extensification programme 'avoidance of artificial inputs'

ES ³ Own estimates based on three Ministry of Agriculture sources Lampkin et al. (1999)

LU/

CZ ⁴ Agri-environment programme and organic farming scheme not yet implemented

SE ⁵ Own estimate

EU ⁶ Excluding Ireland (no data)

CH ⁷ Projected

⁸ Integrated and organic only, no data on other Art. 31b schemes.

Table 2-15: Area of EC Reg. 2078/92-supported organic farmland, and total agri-environment programme supported area (end 1997)

Land area (1 000 ha)	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	EU 15
Organic farming supported under agri-environment programmes	246 ²	3.4	229.5	50.3	50 ³	89.4	42.0	29.1	4.3	nd	308.4	na ⁴	4.6	9.9	205.1	1 272.1 ⁶
Total agri-environment ¹	3 200 ²	19.0	5 509	107.3	827 ³	1 994	6 870	1 409	34.8	961.1	1 612	94.4	32.8	547.5	1760 ⁵	24 978
Agri-environmental policy supported organic as % of total	7.69	17.94	4.17	46.86	6.05	4.48	0.61	2.07	12.24	nd	19.13	na	14.16	1.82	11.66	5.09

Source: national agricultural administrations, European Commission

na = not applicable, nd = no data available

¹ Double-counting will exist where schemes are combinable

² AT: Own estimates based on 1996 values

³ ES: Own estimates based on three Ministry of Agriculture sources (see Lampkin et al. (1999))

⁴ LU: Policy to support organic farming introduced in 1998

⁵ SE: Own estimate

⁶ EU: Excluding Ireland (no data)

Table 2-16: Actual public expenditure in 1996 on organic farming support options and total agri-environmental measures (excluding administration and monitoring costs)

Public expenditure (MECU)	AT	BE	DE ²	DK	ES	FI	FR ²	GB	GR ⁵	IE	IT	LU ⁶	NL	PT	SE	EU 15	CH	CZ ⁶	NO
Organic farming support	55.65	1.14	18.53 ³	6.85	0.88	17.07	0.96 ⁴	0.53	2.78	nd	59.97	na	0.28 ⁷	1.31	20.21	186.15	25.06	na	1.61
EU co-financing ¹	32.82	0.62	9.42	3.43	0.66	8.53	0.48	0.28	2.09	nd	41.06	na	0.16 ⁷	0.98	10.11	110.64	na	na	na
EU share of organic (%) ¹	59.0	54.4	50.9	50.0	75.0	50.0	50.1	53.1	75.0	nd	68.5	na	57.8	75.0	50.0	59.4	na	na	na
Total agri-environmental support	592.8	2.98	345.7	11.73	57.25	270.7	228.5	61.77	11.23	57.70	273.7	na	13.31	48.72	135.5	2 111.6	373.9	na	28.96
EU share of total (%) ¹	59.0	52.3	57.3	50.0	75.0	50.0	50.1	50.3	75.0	75.0	59.1	na	51.2	75.0	50.0	57.0	na	na	na
Organic share of total (%)	9.39	38.13	5.36	58.40	1.53	6.31	0.42	0.87	24.77	nd	21.91	na	2.07	2.69	14.92	8.82	6.70	na	5.56

Source: EC Reg. 2078/92 statistical reporting by member states to European Commission (situation at 15th October) and national agricultural administrations (AT, ES, FI, GR, IT, PT, SE, CH, NO) (situation normally at 31st December).

na = not applicable, nd = no data

¹EU co-financing: where EU share > 50%, share is normally 75% in Obj. 1 regions and 50% elsewhere

²Mid-year estimate of situation at 15th October.

DE ³ Data excludes continuing payments under EC Reg. 4115/88 extensification programme 'avoidance of artificial inputs' (58 of total 84 MECU, or 69%)

FR ⁴ Data excludes 0.7 MECU for EC Reg. 4115/88 extensification scheme

GR ⁵ Totals for 1995 and 1996 combined, as payments backdated to 1995 and individual year data not available.

LU/
CZ

⁶Agri-environment programmes and organic farming support not yet implemented.

NL ⁷Includes estimated value for Flevoland (Obj. 1 region) as actual data not available.

Table 2-17: Actual public expenditure in 1997 on organic farming support options and other agri-environmental measures (excluding administration and monitoring costs)

Public expenditure (MECU)	AT	BE	DE	DK	ES	FI	FR ²	GB	GR	IE	IT	LU	NL	PT	SE	EU 15	CH	CZ	NO
Organic farming support	65.03	0.88	23.27 ₃	9.44	2.91	21.07	4.02 ³	0.82	4.25	nd	102.9	na ⁵	0.34	1.18	25.13 ⁶	261.24	30.41	na ⁵	nd
EU co-financing ¹	33.73	0.47	12.22	4.72	2.18	10.53	2.02	0.42	3.19	nd	70.14	na	0.20	0.88	12.57	153.27	na	na	na
EU share of organic (%) ¹	51.9	54.1	52.5	50.0	75.0	50.0	50.2	51.9	75.0	nd	68.2	na	58.5	75.0	50.0	58.7	na	na	na
Total agri-environmental support	502.1	3.69	390.6	16.21	74.45	278.4	293.1	86.03	13.39	130.3	402.3	4.28	40.16	61.07	147.4 ⁶	2443.5	425.2	nd	nd
EU share of total (%) ¹	51.9	51.8	56.4	50.0	71.4	50.0	50.1	50.7	75.0	75.0	59.6	50.0	50.4	75.0	50.0	55.7	na	na	na
Organic share of total (%)	12.95	23.71	5.96	58.24	3.90	7.57	1.37	0.95	31.74	nd	25.58	na	0.85	1.93	17.05	10.69	7.15	nd	nd

Source: EC Reg. 2078/92 statistical reporting by member states to European Commission (situation at 15th October) and national agricultural administrations (AT, ES, FI, IT, PT, SE, CH) (situation normally at 31st December).

na = not applicable, nd = no data

¹EU co-financing: where EU share > 50%, share is normally 75% in Obj. 1 regions and 50% elsewhere

²Mid-year estimate of situation at 15th October.

DE ³ excludes data for EC Reg. 4115/88 extensification support – values not known

DK ⁴ includes 40.3 MDKK officially postponed until 1998 due to computer payment problems.

LU/

CZ ⁵ Organic farming support not yet implemented.

SE ⁶ estimated value based on increase in land area supported.

In 1997, expenditure on organic farming support under EC Reg. 2078/92 increased to 261 MECU (excluding IE), or 10.7% of the total agri-environment expenditure of 2 444 MECU (Table 2-17). Payments to support organic farming were highest in Italy (103 MECU – nearly 40% of total organic farming support under EC Reg. 2078/92 in 1997) and Austria (65 MECU or 25%). Organic farming support payments exceeded 20 MECU in Germany, Finland and Sweden in 1997. Switzerland also incurred relatively high levels of expenditure (30 MECU). In contrast, less than 1 MECU each was spent on support in Belgium, Great Britain and the Netherlands. (All these figures include EU co-financing except in the case of Switzerland.)

As a proportion of total agri-environment programme expenditure in 1997, organic farming support was highest in Denmark (58%), Greece (32%), Italy (26%) and Belgium (24%) and lowest in France (1.4%), Great Britain (1.0 %) and the Netherlands (0.9%).

The EU co-financing share of the expenditure on organic farming support programmes under EC Reg. 2078/92 is estimated at 111 MECU in 1996 and 153 MECU in 1997. This is equivalent to 59% of total expenditure on organic farming support. In some countries, particularly Italy and the Netherlands, the EU co-financing share is higher for organic farming than for agri-environment schemes in general, indicating higher uptake in Obj. 1 regions. However, the reverse is true for Germany.

In addition, some countries have substantial state aids for organic farming. For example Denmark spent 10 MECU on organic farming development projects in 1996. This and other expenditure on marketing, regional development, training, advisory and research programmes are considered in later sections of this report.

Our estimates for actual total agri-environmental expenditure and the share of organic farming support compare reasonably well with estimates prepared by the European Commission (Table 2-18 and Table 2-19) (EC, 1997e), although individual country estimates vary substantially in some cases. Some of these differences can be attributed to revisions to data supplied to the European Commission by national agricultural administrations – we have used the revised data where we believe them to be more accurate. (Some countries (e.g. AT, DE and SE) supplied estimates to the Commission because their year-ends did not coincide with the required reporting dates of 15th April and 15th October each year.) In addition, the Commission's 1996 data in Table 2-18 for AT, FI and SE include 1995 expenditure. However, for two countries (Spain and Sweden) we were not able to obtain accurate or consistent data on expenditure and estimates have had to be used.

Table 2-18: Public expenditure in 1996 for specific types of agri-environmental measures as % of total 2078/92 expenditure

Share of 2078/92 expenditure	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	EU15
Organic farming (%)	17	20	1	24	4	5	3	2	14	2	23	1	2	4	15	8
Environmental improvement (%)	59	58	56	46	35	42	15	53	35	49	43	39	32	18	6	41
Reduced intensity systems (%)	21	5	21	16	15	42	79	30	0	21	22	56	0	68	71	35
Non-productive land uses (%)	3	14	21	14	42	7	3	14	50	24	10	3	0	6	1	14
Training and demonstration (%)	0	3	1	0	4	5	1	0	0	4	2	0	66	4	7	3
EU co-financing (MECU)	541	2	232	6	33	257	11	26	2	43	42	0	8	40	43	1 391

Source: European Commission COM (97) 620 (EC, 1997e)

Table 2-19: Estimated EU co-financing (EAGGF) and member state expenditure in 1997 for agri-environmental measures

2078/92 expenditure	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	EU15
Number of farms (1 000) ¹	180	1.2	555	8.2	29.6	91.5	178	21.5	1.8	23.9	63.8	1.9	5.6	125	69.0	1356
Land area (1 000 ha) ¹	2	17 6	353	94	532	2 5	725	1 322	12	801	977	97	31	606	1 561	22 628
Member State (MECU)	244	1	124	9	18	143	144	34	3	33	224	4	11	19	83	1 095
EU co-financing (MECU)	265	2	304	9	54	143	144	36	10	100	336	4	12	58	83	1 557
Total (MECU)	509	3	428	17	72	285	287	70	13	134	560	9	23	77	166	2 652
EU share of total (%)	52	67	71	50	75	50	50	51	75	75	60	50	52	75	50	59

Source: European Commission COM (97) 620 (EC, 1997e).

¹at 15.4.1997

2.3 Evaluation of organic farming support under the agri-environment programme

Organic farming support under the agri-environment programme has featured in two reviews by European Commission DGVI (EC, 1997e; STAR, 1997) and is the subject of member state evaluations of national agri-environment programmes required under EC Reg. 746/96. The environmental aspects of the agri-environment programme have also been the focus of research commissioned by DGXI (ERM, 1997; IPEE, 1997). A number of other FAIR research projects including No. 95/0709 (Market effects of countryside stewardship policies), No. 95/0274 (Implementation and effectiveness of EU agri-environmental schemes established under Regulation 2078/92) (Deblitz, Buller et al., 1998), and No. 96/1793 (Thematic network on CAP and environment in the European Union) also address the impacts of the agri-environment programme.

STAR (1997) identifies several key issues that need to be addressed in evaluating organic farming support under the agri-environment programme. These include:

- the proven environmental benefits and problems (if any) of organic farming;
- the degree of correlation between certified organic production and participation in 2078/92 programmes;
- reasons for differences in conditions and payment rates between and within member states and areas where more flexibility would be desirable;
- desirability of targets and monitoring/evaluation strategies;
- statistical data on the development of organic farming;
- the impacts of policy support on market development;
- the justification for particular payment levels as well as continued support when market development has reached a certain level;

Some of these issues, such as the environmental and market impacts, are specifically addressed in later phases of this research programme. The statistical data for 1993 to 1996 are available in a separate report (Foster and Lampkin, 1999). The other questions posed can be addressed to some extent on the basis of the information assembled for this report. However, the main purpose of this section is not to provide a comprehensive evaluation of the impact of the organic farming programmes under EC Reg. 2078/92, nor is it to provide a definitive statement about future policy directions. The aim here is primarily to identify issues which merit further investigation in later stages of this research project, as well as further consideration by policy makers in the process of implementing Agenda 2000.

2.3.1 Reasons for supporting organic farming

What is the main purpose of the organic support schemes? Are they intended to contribute to surplus reduction, to help meet market demand, or primarily as an environmental policy?

The Commission report on the agri-environment programme concluded that the benefits to the environment of conversion from conventional to organic farming are particularly high, when for example the use of crop protection chemicals is stopped. Control organisations exist across the EU, which monitor adherence to production standards and promote the marketing of organic products produced according to EC Reg. 2092/91. The evaluation reports so far received from member states underline the proven environmental advantages for soil and water quality and biodiversity. Financial returns, however, are dependent on marketing opportunities and the extent of policy support (EC, 1997e).

To the extent that the organic farming philosophy is driven by ethical motives such as environmental sustainability, animal welfare and social justice, the role of the market in the development of organic farming has been to provide consumers with a mechanism for compensating producers for internalising external costs.

Organic production standards can be seen as codes of good environmental practice that incorporate both specific environmental requirements as well as restrictions on practices which may have indirect environmental impacts. For example, the prohibition of herbicide use in organic farming requires a different balance of autumn and spring cereal production for weed control that turns out to be favourable for certain bird species. As a consequence, adherence to organic production standards is more likely to lead to general improvements in environmental quality than the production of specific environmental goods (Lampkin and Weinschenck, 1996). But does this make the environmental gains from organic farming any less worthwhile than those from other, more targeted schemes?

Could adherence to organic production standards as a code of good environmental practice be equally well compensated through policy support alone, as is the case with other agri-environment schemes, and as has been deliberate policy with respect to organic farming support in Sweden? Or should the development of the organic food market itself become a main objective, rather than just a means to an end? Some observers see a fundamental conflict between policy support for organic farming and the development of the market for organic food (demand pull or policy push), with the danger that policy support undermines the market, reducing prices and negating the effects of the support payments (Hamm and Michelsen, 1996).

It is clear that some countries see the role of organic farming support primarily in the context of meeting consumer demand and surplus reduction. For example, the United Kingdom and France do not provide support to existing organic producers. The Netherlands does, but at reducing rates providing a clear signal that support will not be on-going. In Portugal, payments have recently been modified to emphasise

marketing of produce as organic. Other countries, such as Sweden, Finland and Austria, place greater emphasis on the potential environmental benefits. It seems that the ideal balance between market-supported and policy-supported organic farming (a mixed push-pull strategy) in pursuit of environmental objectives is difficult to identify, let alone to achieve.

2.3.2 Market development and trade

Organic farming is in a unique position among agri-environmental policy measures given the role that the market can play. Market development is therefore a fundamental requirement of organic farming support if an appropriate balance between market-support and policy-support for organic farming is to be maintained, so that large, policy-driven increases in supply do not flood small, existing markets. Although this type of assistance is not covered by EC Reg. 2078/92, some countries have developed specific schemes to support organic farming organisations in their technical, market and consumer information functions. Market development is also supported to a significant extent under other regulations (see Sections 4 and 5).

The variability in both conditions and payment rates between countries, and within those countries where schemes are operated on a regional basis, is leading in some cases to market distortions and unfair competition. One objective of EC Reg. 2092/91 was to create a level playing field in the market for organically produced food within the EU by providing a consistent, legally-backed definition of the term organic. There is therefore a case that a common approach to the conditions and levels of payment for organic support programmes should also be adopted.

2.3.3 Level of payments

The level of payments to farmers converting, and to farmers continuing with organic management, should ideally be determined with regard to:

- *the environmental and other conditions* that farmers are expected to meet and the costs of meeting them;
- *the environmental benefits* that are likely to be obtained;
- *the costs of conversion*, in particular any restrictions on access to premium markets;
- *the costs of continued organic farming*, since despite the availability of premium prices, some farm types, particularly specialist arable and horticultural holdings, may still face reduced incomes;
- *payment levels and eligibility for related environmental schemes* that also involve adherence to codes of good environmental practice;
- *levels of payments in other countries* so that producers are not put at a competitive disadvantage;

- *the reduction in eligibility for other support schemes*, in particular arable and livestock aid payments due to changes in land use and the reduction in intensity of livestock production (see Section 3);
- *the potential for other savings in public expenditure* due to the reduction in output of surplus crops and livestock.

EC Regs. 2078/92 and 746/96 impose much narrower grounds for determining levels of payment, limiting them to income forgone, additional costs and a possible incentive element. The principle that aid payments should be for the provision of public environmental and social goods is therefore difficult to implement in practice, not least because it is very difficult to measure the value of the environmental benefits actually achieved. It may be that a system of environmental scoring can be derived which would allow for the improvements in overall environmental quality of farms to be measured and linked to policy support.

The assessment of income forgone and the additional costs incurred is difficult. Costs of conversion can vary widely according to individual circumstances, resulting from a combination of output reductions, lack of access to premium prices, new investments, information and experience gathering, fixed and variable cost changes, market development costs, and changes in eligibility for other support payments (Lampkin and Padel, 1994).

In many cases, it is clear that output reductions and lack of access to premium prices were the major factors in determining aid levels. Other costs of conversion, in particular market development costs, loss of eligibility for other support payments and information gathering, appear not to have been considered so highly. In one instance, the assumption was made that yield reductions would be compensated by lower input costs and that the support payments should cover only an assumed 20% increase in labour use. In another case, the 'costs of conversion' were based solely on lack of access to premium prices, and did not even take account of changes in yield resulting from conversion from conventional to organic production.

Frequently, the focus of calculations was on individual crops, not whole farm systems, so that for example the changes in proportions of different crops resulting from conversion were ignored. There is a related risk that if payments are focused on cash crops without support for the fertility building phase of the organic rotation (typically leguminous forage crops), as in the Netherlands (initially) and Portugal, then producers will be encouraged to grow inappropriate crops with possible adverse financial and environmental consequences.

Although some countries made serious attempts to estimate costs of conversion and of continued organic production as a basis for their support payments, in general the rates of support have proved insufficient to encourage the more intensive and specialised arable, horticulture, pig and poultry producers to convert. In part this was due to the relatively low co-financing levels set out in EC Reg. 2078/92. In many cases, payment rates were set at the maximum co-financing level, although some countries chose to pay in excess of these limits as state

aids. However, in most countries support levels for organic farming were higher than for other agri-environmental options.

As a consequence of the low levels of support relative to the costs incurred, the most common farm types receiving support for converting to or continuing organic farming in many, if not most, countries were moderate or low intensity (marginal) grazing livestock farms, in particular dairy farms in AT, DE, DK, GB, and IT where a growing demand for organic milk combined with relatively low costs of conversion (Schneeberger, 1997; Schulze-Pals et al., 1994).

This illustrates the general problem with payments based on a fixed rate per hectare for specific crops. They may not be sufficiently flexible to encourage the most intensive producers to convert (where the greatest environmental benefits and financial costs of conversion might be expected) without at the same time providing unnecessarily generous support to already extensive producers (where the environmental benefits and costs of conversion are more limited). This also leads potentially to the problem of the biggest sinner getting the most support (Lampkin and Weinschenck, 1996). On the other hand, payment levels that are only attractive to those who need to make no significant changes to their farming systems, and where consequently few environmental benefits might be expected, can be criticised for effectively being production support payments rather than payments linked to the generation of environmental benefits. (Clearly there is also an argument that halting but not reversing a process of intensification can also represent a net benefit relative to current trends).

Given that many of the environmental benefits or costs of conversion are not related directly to type or size of individual enterprises, it might be preferable to relate payment levels to initial production intensity (for example European Size Units or stocking rates per hectare) and/or farm type. A fixed payment per farm as well as per hectare (as in Switzerland) might help to ensure that smaller farms are not disadvantaged, and help finance capital investments, although mechanisms would be needed to discourage sub-division of holdings. In effect, this would be a form of modulation, which is already possible under EC Reg. 2078/92. Initially, only Portugal modulated payments according to the area farmed, followed by Austria in 1997. Maximum limits on eligible land area in several other countries are also steps in this direction.

Several studies have found that many of the farmers who did convert under earlier support schemes would have done so anyway without the payments (Svensson, 1991; Dubgaard and Holst, 1994; Schulze-Pals et al., 1994), but that the grants played a significant role in the decision to convert. The main role of organic support schemes might therefore be to provide an insurance against the risks of conversion, rather than as a critical factor in the financial assessment of conversion costs by farmers. Other factors than the level of support, such as availability of information and market signals, may also contribute to the producers developing sufficient confidence to take the decision to convert.

2.3.4 Alternative agri-environmental options

Alternative options under EC Reg. 2078/92 have the potential to be competitive or complementary depending on the eligibility conditions, requirements and payment levels. A common problem identified was that alternative options often had significantly less restrictive requirements than the organic options, for only slightly lower rates of payment (or in a few cases even higher rates of payment). However, this did not always lead to real problems – in Portugal support for integrated crop production at payment levels very similar to organic was only taken up by small numbers of fruit producers, while the integrated pest management option was more successful despite lower payments.

Where measures can be combined, similar rates of payment for the different options is not necessarily a problem. In fact, the opportunity to combine agri-environment options can be an important means of compensating for otherwise inadequate payment levels, for example in the less-favoured areas of England and Wales which receive only 20% of the payment levels indicated in Table 2-9. Where combinations are not allowed, significant distortions can be caused, as in Portugal where the extensive grassland option was more attractive to livestock producers than the organic farming scheme, which did not support grassland.

The most significant example of the impact of competitive agri-environment schemes comes from Austria. At the start of 1995, 22 875 farms were actually registered as organic, a very large increase on the previous year, attributed in part to anticipation of EU accession. During the year, however, more than 6 000 farms withdrew (mainly Codex registered farms in Salzburg and Tirol). A key factor was the availability of new agri-environment schemes which in particular did not require organic management of livestock and offered similar levels of payments. By the end of 1995, the number of registered farms recovered to 18 500, but was still substantially down on the figure at the start of the year.

2.3.5 Impacts on existing organic producers

In two countries (France and the United Kingdom) support is only given to farmers converting to organic production, reflecting the view that the primary purpose of organic farming support is to meet market demand, and that the market alone should be sufficient to maintain organic farmers once conversion has been completed.

This approach has the potential to discriminate against existing organic producers who are also adhering to a detailed code of good environmental practice and presumably yielding similar environmental benefits to producers who are converting. Few other agri-environment schemes do not fund producers who are meeting the specified environmental goals. In addition, existing organic producers are an important source of information and expertise for farmers converting. They have had to finance the conversion unaided, and may be affected by market distortions as new producers come on stream, often in markets which they themselves have developed.

Existing organic producers may also have been disadvantaged by reduced eligibility (compared with if they had remained conventional) for arable area payments and the introduction of quotas on livestock subsidy payments (as previously with milk quotas), with a potential adverse impact on incomes and asset values (see Section 3). Many grazing livestock producers do not qualify for significant price premiums in the market, and unsupported, they might decide to reconvert to conventional production, which would be counter-productive.

2.4 Summary and conclusions

This Section reviews the range of programmes implemented under EU and national/regional measures to provide direct support for organic farming, with a particular emphasis on schemes supported under the agri-environment programme (EC Reg. 2078/92) and other national and regional schemes.

Since the introduction of the agri-environment programme in 1994, all EU member states have introduced policies to support organic farming, but payment rates and conditions vary widely. By 1997, organic farming schemes supported more than 65 000 farms and 1.27 Mha at a cost to member states and the EU of over 260 MECU, representing around 5% of the uptake and 10% of the expenditure on agri-environmental measures.

Unlike some previous schemes, most countries (with the exception of GB and FR) allow existing organic producers to participate. Staged conversions are permitted in all countries except DE and IE, and all but 5 countries permit partial conversions. All schemes require organic management to be maintained for at least 5 years, otherwise payments have to be repaid.

Certification of crop production according to EC Reg. 2092/91 is required in all countries except Sweden. The requirements for organic management or certification of livestock are less strict, even though eight

countries require management according to mostly national standards and half of the countries impose stocking rate limits around 2 LU/ha. Several countries operate maximum and minimum limits on size or payment, but the actual limits vary widely.

Many schemes exclude payments towards permanent grassland. Some countries impose environmental requirements in addition to those specified in EC Reg. 2092/91 and in Ireland and Finland participation in the main agri-environment protection scheme is compulsory. Special provisions for training that are included in the Regulation are not taken up in many programmes, although Austria, Portugal and Finland have compulsory training programmes.

Most countries have modified their original organic farming schemes – in seven countries rates have been increased, where as in Finland, Spain and some German regions rates had to be reduced because of higher than expected uptake of the schemes.

Payments rates vary widely, from 100 to 1 200 ECU/ha for the first two years of conversion, depending on crop type and country. In most countries the payments for continuing organic production are lower, recognising the costs of conversion and income forgone. However, some countries have chosen not to offer higher payments, so that entrants that are not interested in organic production but only the higher conversion rates are discouraged. Austria, Great Britain and one region in Germany have included some payment towards the costs of certification in the schemes. Uptake also varies between countries, from less than 300 producers in Belgium to 18 500 in Austria. To some extent levels of payment can be linked to rates of uptake, but no clear relationship emerges.

Support to producers can be seen as a means to meet increasing consumer demand as well as income transfer to farmers for environmental and other benefits. Particularly in those countries with not very well developed domestic organic markets the element of income transfers to farmers in the agri-environment programmes dominates over objectives to increase the supply base for organic production.

3 Impact of mainstream agricultural support measures on organic farming

3.1 Introduction

The mainstream measures of the CAP Reform were introduced to resolve a range of problems, including the need to conclude the Uruguay Round of the GATT talks, the high cost of the policy and the political need to reduce environmental pressures. In essence, they encompassed a major shift from price support for cereals and beef to direct income payments linked to the production of specific commodities. Arable area payments linked to set-aside were introduced, together with headage payments for certain types of livestock, linked to progressively declining stocking rate limits and/or marketable quotas. Both the profitability of organic farming and the costs of conversion are potentially significantly influenced by these measures.

This section focuses on the implementation of these mainstream CAP Reform measures and similar policies in the non-EU member states. Three key questions are addressed:

- What have been the impacts of the mainstream CAP Reform measures on organic farmers and farmers converting to organic production?
- Have special provisions been implemented to mitigate any adverse impacts?
- Have any other national programmes been used in an innovative way to the benefit of organic producers?

3.2 Regulatory framework

3.2.1 EU Regulations

The mainstream measures of the CAP Reform were legislated in 1992 and implemented in most countries with effect from 1993.

Council Regulation 1765/92, (OJ L181, 30.06.92) establishing a support system for producers of certain arable crops, and **Council Regulation 1766/92** on the common organisation of the market in cereals, reduced prices by about 29%, accompanied by fixed compensation based on a regional yield calculation. Apart from small producers (under ca. 20 ha or the area required to produce 92t of cereals using average regional yields) this compensation was dependent on a

minimum set-aside of 15% of land eligible for arable support payments on the holding. In 1997, the set-aside area required was 5%.

Council Regulation 2066/92 (OJ L215, 30.06.92) amending **Regulation 805/68** (on the common organisation of the market in beef and veal) repealing **Regulation 468/87** laying down general rules applying to the special premium for beef producers, and repealing **Regulation 1357/80** (introducing a system of premiums for maintaining suckler cows), with **Council Regulation No 2067/92** on measures to promote and market quality beef and veal, together cut beef and veal prices and compensated this with new and augmented premiums. The beef special premium was retained, payable on a maximum of 90 male cattle up to twice (at 10 and 22 months) during the animal's lifetime and linked to regional reference herds to constrain total expenditure. Suckler cow premiums were increased, with the introduction of quotas for eligibility, and the calf-processing scheme was established. The role of intervention was diminished substantially, to provide only a regional safety net for severe price declines (in member states where prices fall to 60 per cent or less of the intervention price). The beef extensification premium, payable if the stocking rate for livestock support claimed is less than 1.4 LU/ha, was also introduced. Since 1996, following the BSE crisis, an additional supplement has been payable for stocking rates less than 1.0 LU/ha.

Council Regulation No 2069/92 (OJ L215, 30.06.92) amending **Regulation 3013/89** (on the common organisation of the market in sheep meat and goat meat) maintained premium arrangements for sheep, but limited them to existing headage numbers. The rate of payment was also reduced to 50% for producers with more than 500 breeding animals (1000 in less favoured areas (LFAs)). The regulation also "ring-fenced" the transfer of rights to premium payments, preventing them from moving from less favoured to other areas.

Council Regulation 2071/92 (OJ L215, 30.06.92) amending **Regulation 804/68** on the common organisation of the market in milk and milk products provided the basis for relatively modest changes to dairy policy, leaving the level of quotas unchanged but cutting butter prices by 2½ percent.

Council Regulation 2328/91 (OJ L218, 06.08.1991) on improving efficiency in agricultural structures (and amendments) provides the basis for implementing farm investment aids amongst other measures which are covered more fully in section 3 of this report. **Council Regulation 950/97** (OJ L142, 02.06.97) on improving the efficiency of agricultural structures recasts the provisions outlined in this regulation.

Council Directive 75/268/EEC on less-favoured areas (OJ L 128, 19.5.1975) laid the foundation for policies to support agriculture in less favoured areas, including the introduction of livestock compensatory allowances. Measures to support agriculture in less favoured areas are currently regulated by Council Regulations 2328/91 and 950/97 (see above).

Various Council Directives and Regulations impose limits on contamination of water and food supplies by nitrates and pesticide

residues, as well as protection natural habitats and wild fauna and flora. These are reviewed in Cammarata et al. (1997).

Numerous Commission and Council Regulations are used to regulate price support mechanisms such as levies, export subsidies and intervention buying. These have not been considered here in detail.

3.2.2 National/regional legislation

In Switzerland, Article 31a of the 1994 Agriculture Act (BLW, 1997) implemented similar direct payments to the CAP Reform. These payments are determined in relation to the type of the farm, the surface area and the limitations due to the production location.

3.3 Review of current situation

3.3.1 Mainstream measures implemented

All EU countries have implemented the mainstream CAP Reform measures except, in most cases, the male calf processing scheme. Similarly, livestock support policies in less favoured areas, milk quotas, and EC Reg. 2328/91 farm investment aids are applied in all countries.

3.3.2 Environmental cross-compliance measures

Environmental cross-compliance measures are, strictly defined, those which require farmers to meet certain environmental standards in order to qualify for mainstream agricultural support payments. In the **United Kingdom**, for example, overgrazing penalties can be imposed on producers who overstock in order to claim less favoured area (LFA) hill livestock compensatory allowances. In **Switzerland**, there is a requirement that 5% of the farm area (7% from 1998) is allocated to nature conservation (ecological diversification) use. It is part of government policy to include cross compliance measures in the schemes under Article 31b as well as Article 20 of the Swiss law for agriculture. In particular, integrated crop production standards are set to become the minimum environmental requirement for direct payments from 2002. In the majority of countries, however, no specific environmental cross-compliance measures have been implemented or identified. In **Norway**, a commitment to maintain the landscape is required as part of arable area and cultural landscape programme.

In some countries general environmental regulations applied to agriculture can be quite stringent, affecting both conventional and organic producers. In **Denmark**, all farms over 10 ha and all organic farms over 1ha must complete rotation and fertiliser plans each year, ensure that more than 65% of fields are covered with a crop until at least

20th October, and meet specific requirements for nutrient applications from livestock manures, slurries and mineral fertilisers. In the **Netherlands**, the manure regulations (see 3.4.3) may have significant implications because of the costs of implementation, but organic producers may qualify for special exemptions. On the other hand, the pesticide regulations have little impact on organic producers. In **Norway**, a new regulation on organic manure (from 1.1.1998) requires that all farms (conventional as well as organic) must have a plan for the use of organic manure on the farm.

There is no evidence to suggest that where these measures have been implemented they have had any specific impact on organic producers, although there are clearly costs involved in meeting general environmental regulations, an issue identified particularly in the Netherlands.

3.3.3 Special provisions for organic/converting producers

In most countries, no specific provision or derogation for organic farmers within the context of the mainstream measures has been identified. In a few countries, some provisions have been made. These range from less restrictive requirements compared with conventional producers, to free access to quota and supplementary payments.

In the **United Kingdom** organic or converting farmers may

- Exceed the maximum allowance of 5% legume content for set-aside mixtures; allowing organic farmers to utilise set-aside payments to support the fertility building phase of the rotation. In many other European countries, this is possible without special provisions as the restrictions on the use of legumes in set-aside land are less severe.
- Cut or cultivate in May and June for weed control when conventional producers with access to herbicides are not permitted to do so. This recognises that organic farmers can not use herbicides for weed control, although it is at the expense of a measure designed to protect ground nesting birds.
- Rotate eligible arable area land around the farm, recognising that organic farmers operating a rotational system might have had some land in grass leys more than five years old at the time that the arable areas were originally defined. The total area of eligible arable land on the farm remains the same.
- Obtain free allocation of suckler cow and sheep annual premium quota from the national reserve if participating in the organic aid scheme. Although access to quota for beef and sheep has theoretically been possible since 1995, the priority given to organic farmers was relatively low, and it is only recently that sufficient quota has become available to make a real difference.

In **Ireland**, it is also possible for organic farmers to rotate eligible arable area around the farm.

In **Sweden**, the inclusion of clover in set aside mixtures was also possible on more favourable terms. In the first two years of the scheme, organic farmers were allowed to have 30% clover in set aside mixtures instead of 20% or less for conventional farmers. Now all farmers are allowed up to 30%.

Sweden and **Denmark** have made additional milk quota available to dairy farmers converting. In Sweden, organic farmers could choose production levels between 1991 and 1994 as a basis for setting initial quota levels instead of the average for 1991 to 1993. In principle, this favours organic producers, although the rules were announced late and this provision has had a minor impact on organic producers (higher payments for the milk have had a bigger impact). In Denmark, some additional milk quota was made available to farmers converting to or continuing with organic production in 1995 and 1996.

In **Italy**, the regions of Marche and Umbria have given organic farmers priority status with respect to farm investment grants and loans, ranging from machinery replacement to farm and agri-tourism development programmes. In Sicily, organic producers not receiving payments under EC Reg. 2078/92 will be able to qualify for a 10 ECU per LU or per ha supplement to less favoured area (LFA) payments from 1998 under EC Reg. 950/97. This is the first instance where the opportunity to supplement LFA payments provided by EC Reg. 950/97 has been utilised. It is technically not possible to use this option in combination with EC Reg. 2078/92 payments, as an increase in LFA payments would lead to a corresponding decrease in income foregone and consequently in the level of payments which can be made.

In the **Netherlands**, special provisions do exist with respect to the manure law (for details see 3.4.3), but not to the mainstream CAP reform measures. The special provisions imply that, if organic farms have trouble meeting the standards for NH₄ emissions, especially in poultry and pig-keeping, they will not have to farm within these norms. This exemption has to do with the fact that certain animal housing systems in organic farming (which do have advantages concerning animal health and well-being), may lead to higher NH₄ emissions than certain housing systems in conventional farming.

Of the non-EU countries studied, **Norway** provides milk quota from the national reserve in areas with no or very little animal husbandry, allowing converting and continuing organic farms to increase their milk quota, or get new milk quota. Four million litres were at disposal for organic farms in 1997, but only 2.5 Ml were distributed. In **Switzerland**, there is political pressure to sell milk quotas only to organic and integrated farmers, after a referendum in 1995 where the Swiss population did not accept that there should be no restrictions on selling milk quotas.

Organic producers in **Switzerland** also receive favourable treatment in the cereals market. Since 1991 organic farmers are exempt from the levy of about 61 ECU/t (100 CHF/t)¹ for bread making cereals such as wheat

¹ ECU conversion based on 1997 average conversion rate (see Table 0-1)

because they do not cause overproduction problems. This favoured organic farmers to the extent of 226- 282 ECU/ha (400-500 CHF/ha)² higher income for bread making cereals when it was first introduced in 1991, before the introduction of direct payments for organic farmers. Integrated and conventional farmers on the other hand do not get the full price after harvest in every year with very high yields of wheat. This money is used for marketing, storage and denaturing.

3.4 Impact of mainstream measures and modifications on organic farming

The impact of the mainstream measures on organic farming is a topic that has received relatively little attention from policy makers, despite the potential for conflict between these measures and the agri-environmental measures. In many cases, the assumption is made that there is no difference between organic and conventional producers in terms of eligibility, and that therefore any impacts are likely to be negligible. Very few studies have attempted to quantify any possible impacts, so that the following analysis is unavoidably qualitative in nature.

3.4.1 Set-aside management requirements and implications for organic farming

In most countries, the set-aside rules usually require vegetation cover to be maintained, either through natural regeneration or through the use of defined sown species, including mixtures to benefit wildlife. In two countries (ES, IT), bare fallows are also permitted, but are not favoured by organic producers. Fertilisers, manures, irrigation and pesticides are either prohibited or severely restricted. In most countries, legumes are permitted without restrictions, but in some cases restrictions are imposed to reduce risks from nitrate leaching. In the United Kingdom, the limit on the use of legumes in set-aside mixtures is 5%. Management guidelines generally specify dates for utilisation, weed control and cutting of set-aside land. Set-aside land may also be used for non-food crops such as for industrial oils or hemp production – hemp in particular has attracted some interest from organic producers in Germany. The exception to all this are the Czech Republic and Norway, which has no set-aside requirement.

In most countries, the impact of set-aside is seen as neutral or beneficial. In most countries, farm size is such that organic producers can qualify for arable support payments under the simplified scheme without the need to set land aside. In the Netherlands, the organic sector increased the use of set-aside in the period 1991-1996, and the percentage of land set-aside

² ECU conversion based on 1991 average conversion rate

is higher than in conventional agriculture. This might also be true for other countries but no data are available.

For larger arable farms, set-aside payments can be used to support the fertility building phase of the rotation, so long as legumes are permitted. The use of set-aside in this way depends in part on whether (annual) set-aside land is also eligible for organic support payments. Where this is the case (as in GB, BE), organic arable farmers may make significant use of additional (voluntary) set-aside to help finance the fertility building phase of the rotation, especially during conversion. In countries where set-aside land is not eligible for organic support payments and the organic payments are higher than set-aside payments (as in AT, DE, DK, SE), land under fertility-building green manures is more likely to be declared as cropped arable land. Consequently only the minimum compulsory set-aside requirement is declared as such. However, even in these circumstances, set-aside land has to be managed organically as it is part of the organic rotation or farm system.

An exception to this has been noted in Italy, where on some farms part-farm conversions and the use of non-rotational set-aside in hilly areas has led to conventional management of the set-aside requirement using permitted, low environmental-impact herbicides, while the cropped areas are managed organically. Possible reasons for this are the resource requirements of cultivating annual green manures and their potential nitrate leaching risk in a non-rotational context. However, the implications are not that important, as the majority of Italian organic farms are small and the 'simplified scheme' for arable area payments applies.

Set-aside may sometimes be used (as in DK, GB) to establish new leys undersown into cereal crops, although production will be lost until the autumn of the year following the cereal harvest. This may be of benefit to some mixed livestock/arable producers. However, it has been noted in Germany that larger livestock farms relying on arable fodder crops sometimes face problems with feed shortages due to the reduction in area available for crop production.

Some organic farming organisations have suggested that organic producers should be exempted from any requirement to set land aside, because of the lower levels of production overall. However, the advantages, not least encouraging producers to enter the conversion with fertility building crops rather than exploitive cash crops, would need to be considered carefully before such a step were taken.

3.4.2 Impacts of the main arable support and livestock measures on organic farming

3.4.2.1 Impacts on existing organic producers

Existing organic crop producers have gained some benefits from the mainstream measures. Aid for crops is no longer linked to output, but to

the areas of different types of crops grown. Previously, price support and selling into intervention were of little relevance to producers operating in an under-supplied premium market. Now, area aid calculated on the basis of regional average yields represents a bonus to many organic producers, particularly given that organic crop prices have not fallen as much as conventional prices as a consequence of the reforms. The higher level of support payments for protein crops such as beans and peas has also been of benefit to organic producers, given the contribution which these crops can make to the nitrogen and livestock feed requirements of the farm system.

However, in some cases the benefits gained may have been at the cost of setting land aside which might otherwise have been producing cash crops that were in demand, given that on most organic farms the fertility building phase of the rotation is utilised by livestock. In addition, dairy and horticultural producers, who represent a relatively high proportion of organic production in most countries, saw few benefits from the CAP Reform measures, as their crops, grassland and dairy cows were not eligible for support. To the extent that CAP support under the mainstream measures has been incorporated into land and rental values, the impacts may even have been negative.

For many producers operating rotational systems that included periods of fertility building leys lasting longer than five years, the definition of eligible arable area according to land not in permanent grass (i.e. > 5 years old) at the end of 1991 meant that some of the rotational land would not qualify for support payments when it came back into production. In some countries (e.g. GB, IE), this issue appears to have been resolved by allowing producers to rotate eligible area around the farm, as long as the number of hectares does not exceed the original amount. In Belgium, there was a two year period (1992-1994) when the administration was flexible about the permanent/temporary nature of fodder area, so that farmers could choose the optimum basis for the support regime.

Existing organic livestock producers, who had reduced livestock numbers before 1992, have in many cases received lower livestock quota allocations than would have been the case had they remained under more intensive, conventional management, with a potentially adverse impact on asset values. At the same time, they will have benefited (as other producers, but to a lesser extent given lower stocking rates) from the increases in headage support payments. The adverse impacts relating to lower stocking rates might have been less significant if support for livestock producers were also allocated on an area basis. However, organic producers would not have been as severely affected by the reductions in eligible stocking rates in the early years of the reforms. Indeed, many organic producers have benefited from the higher beef extensification payments for stocking rates less than 1.4 LU/forage ha.

3.4.2.2 Impacts on farmers converting to organic production

The problems are potentially more serious for farmers converting to organic farming because arable area payments differentiated by crop

types and livestock aid eligibility quotas tend to freeze current production patterns and levels of intensity. The enterprise restructuring which conversion to organic farming entails has implications for the balance between arable and livestock enterprises on the farm, as well as for the level of intensity of livestock production. Arable farms converting to organic production will tend to reduce the arable area and increase the area of grassland and numbers of livestock, while livestock farms will tend to reduce livestock numbers and may introduce or expand arable production.

Arable farmers converting may therefore lose eligibility for some arable area payments, without compensation, but can only get access to some livestock premiums through quota purchase. In some areas, even quota purchase may not be possible because of the regional basis of quota allocations.

Livestock farmers converting are likely to receive livestock payments on fewer animals, yet will not be entitled to arable area payments for any new arable land introduced, although this may be offset by quota sales. There is therefore an active disincentive to producing cereals for livestock feed on the holding itself, in line with organic principles, when crops that have received support can be purchased relatively cheaply from elsewhere.

These blockages were seen as more of a problem in countries and regions with larger farm sizes, as the farms were too big to qualify for the simplified scheme, but in many cases creative use of the support measures could reduce the extent of the impacts significantly. In Finland, these issues were seen as less of a problem, because producers had relatively large areas of grassland and low stocking rates, so that conversion to organic production had little impact on the structure and size of individual enterprises. In the Netherlands, too, the implications were considered to be small because most farms are specialised crop or livestock farms and would be expected to remain specialised after conversion.

3.4.2.3 Impacts of capping mechanisms

The capping mechanisms introduced to limit the overall level of arable crop support have had little impact in most countries. The main impacts identified have been to limit restructuring within the conventional sector, by discouraging farmers from moving from one crop type to another. The key crops affected in most countries are oilseed rape and maize. Organic producers, because of a lack of processing capacity, currently grow oilseed rape only on a very limited basis.

Forage maize, on the other hand, experienced a significant revival of interest on organic mixed dairy/arable farms in countries like Great Britain because of the availability of arable area support (unlike grassland). However, the severe capping limits on maize payments following the initial expansion of interest in 1994 probably contributed to a decline in interest in this crop on organic dairy farms.

In Greece, expenditure capping mechanisms for olive oil due to excess conventional production in 1996 in other Mediterranean countries led to a reduction in the level of subsidies for most farmers, as well as a fall in price, which also impacted on organic olive producers.

3.4.2.4 Impacts of livestock quotas and other schemes

As far as livestock quotas are concerned, the ability to transfer sheep quota to ewe lambs when reducing stocking rates during conversion has helped to maintain incomes. This has the added benefit of an overall reduction in the number of productive ewes qualifying for support payments, thus contributing to surplus reduction objectives. The ability to trade quotas has facilitated the restructuring process, although this has been more difficult in some areas than others. For many producers, the ability to lease out milk, beef or sheep quota during the conversion period has proved to be an important means of financing the conversion until stocking rates can be restored in a fully established organic system.

Although implemented in only a few countries, the male calf processing scheme has proved controversial for organic farmers concerned about the ethics of sending calves to slaughter. In some countries, such as Sweden, a relatively strong market for organic meat and the dual purpose breeds used for milk production have provided an alternative outlet for the calves, so that little use has been made of the scheme. This contrasts with the experience in the Great Britain where the calf-processing scheme was introduced following the BSE crisis and the collapse in prices for dairy-bred calves.

3.4.2.5 Impacts of mainstream measures in the non-EU countries

The mainstream agricultural support measures implemented in Norway and Switzerland (see Lampkin et al. (1999) for full details) have some similarities to those in the EU, particularly in relation to arable area payments. In Norway, the switch from production to area-based support is considered advantageous to organic farming while the other mainstream measures probably do not have any significant impact. Livestock support is on a headage basis, resulting, as in EU countries, in lower levels of support due to reduced stocking rates. However, some of the schemes are part of the policy to maintain the geographical separation of different types of production, such as livestock production and grain/vegetable production, which conflicts with the mixed farming ideal for organic production. This policy was implemented mainly between 1960 and 1980, but it is still promoted by various means, and leads to a lack of manure in some grain/vegetable districts, and lack of knowledge and equipment for grain/vegetable-production in many livestock districts.

3.4.3 Impacts of national or regional aids and taxes on organic farming

In a number of member states, state (national or regional) aids and taxes may also have had an impact on organic producers. The following examples illustrate some of the effects that have been identified, but the list is not comprehensive. These are in addition to the special provisions for organic producers identified above. Some of these measures may not strictly be state aids, but variants on EU measures such as investment aids – it has not been possible to distinguish between the two in all cases.

Investment aids for animal welfare friendly housing systems in **Austria** and for horticultural production (mainly in greenhouses) and the use of renewable energy sources in greenhouses in **Greece**, are considered to be helpful to organic producers. In **Germany**, investment aids for individual farms benefit organic farms for restructuring purposes and investment in marketing/processing enterprises. There is an informal agreement that machinery that improves the spreading of farmyard manure can be covered, even though machinery investment is otherwise excluded from the programme.

Organic farmers in the **Netherlands** can use the VAMIL-regulation (*Vervroegde Afschrijving Milieu Vriendelijke Investering* = early depreciation of environmentally friendly investments). The goal of this regulation is to increase sustainable investments on the farm. Investments can be rapidly depreciated, giving the farmer an interest and liquidity advantage. Some conditions are bound to the regulation:

- the investments may not be for widely used devices;
- it must be possible to use these devices on a wide scale;
- the devices must be included in the Ministry of Environment's approved list, which includes investments to reduce or prevent water pollution or water use, air pollution, soil pollution and energy use.

Taxation rules may be used in other ways to the possible advantage of organic producers. In **Belgium**, there are two fiscal systems available to farmers: taxation on estimated income and taxation on effective income. The organic farming support is considered as compensation for lower agricultural product prices and therefore is not subject to a special taxation regime, unlike the premium for the Wallonie agri-environment programme. The latter are either added to the estimated income or to the effective income. The organic farming premiums are not added to the estimated income but are to the effective income. In **Germany**, the option for small farms to pay tax on the basis of estimated turn-over rather than on farm accounts might favour organic farms relying less on external inputs. Similarly, estimated employers contributions to income tax might benefit producers that rely on seasonal labour.

In **Denmark** and the **Netherlands**, pesticide reduction taxes/laws clearly impact more severely on conventional producers, although in the long-term reduced pesticide use may impact on consumer perceptions of the benefits of organically produced food.

The **Netherlands** manure law (*Meststoffenwet*) and ‘manure- and ammonia policy’ (*Integrale Notitie Mest- en Ammoniakbeleid*) have potentially greater impacts. These measures include:

- a) regulating levies on mineral losses on farms (the farm-gate nutrient balance controls)
- b) regulating levies for intermediary firms, such as transporters, business people, those who process and ‘rework’ manure, etc.;
- c) a destination-levy for farms to finance the costs of implementing the manure laws;
- d) an exemption from the levies mentioned under ‘a’ and ‘c’ for farmers who have less than 2 LU/ha.

Regulation d) means that all organic dairy farms (the bulk of organic animal farms) are free from levies under ‘a’ and ‘c’. Regulation ‘b’ does not apply to farms, so until now, organic farmers are free from levies under the manure law. In the future, however, organic farmers will have to fulfil the standards for a) (the farm-gate nutrient balance controls). Much research is going on concerning the nutrient-balances of conventional farms and organic farms. Results show that, on average, organic farms already fulfil the demands for P and N that will apply in 2003. In other words, for most organic farmers, these controls are not a problem. This gives organic farmers an advantage as compared to intensive conventional farmers. However, where organic farmers do have to meet the manure laws, the impact can be significant, as the measures are costly. The limitations on nutrient applications relate only to animal manures, and may therefore have a greater relative impact on organic producers as they do not use mineral fertilisers.

3.5 Summary and conclusions

Only in a few cases have significant adverse impacts of the mainstream measures on organic farmers been identified. In some cases, special provisions have been made to reduce these. In most countries, the mainstream measures are seen as beneficial, at least for arable producers.

The loss of eligibility for livestock premiums as a result of reduced stocking is seen as potentially more serious, particularly during conversion. Similarly, arable farmers converting may lose eligibility for some arable area payments as a result of conversion, but this too can be mitigated by extensification payments and quota sales or leasing where applicable.

Several countries have made use of investment aids and national/regional measures to provide additional assistance, including special derogations for organic producers. These examples could usefully be adopted on a wider scale in many cases.

The potential impacts of changes to the mainstream support measures as a consequence of Agenda 2000 are briefly considered in Section 10 of this report but will be evaluated in more depth subsequent phases of this research project.

4 Marketing and processing schemes

Prior to the introduction of financial support for conversion to and maintenance of organic farming, organic producers relied exclusively on consumer willingness to pay a premium to compensate them for lower yields and higher costs which sometimes resulted from the production practices employed. Over time, the market for organic food and fibre products has grown significantly, and market development to support the environmental and food quality objectives of organic farming has become increasingly important as the supply base has grown.

This section aims to identify how policy support for market development has affected the organic sector. This includes funding provided within the framework of EC Regulations and any national or regional programmes. It also provides a brief overview of the organic projects and organisations that have received funding under such policy programmes, and also the key participants in the sphere of market development in each country.

4.1 Regulatory framework

4.1.1 EU structural measures

The horizontal measures of the structural funds (**Objective 5a**) are aimed at the adaptation of agricultural structures throughout the Community. Under this Objective organic producers can obtain financial assistance for marketing and processing activities through a variety of Regulations:

Council Regulation (EEC) No 2328/91 (and amendments, EC, 1991b) on improving efficiency in agricultural structures aims:

- to help restore the balance between production and market capacity;
- to help improve the efficiency of farms by developing and reorganising their structures and by promoting supplementary activities;
- to support farm incomes and maintain viable agricultural communities in mountain or less-favoured areas by offsetting the effects of natural handicaps;
- to contribute to the safeguarding of the environment and preservation of the countryside by encouraging appropriate farming methods (EC, 1991b).

Measures include investments in agricultural holdings to reduce production costs, to promote the diversification of activities including the marketing of products on the farm and to preserve and improve the natural environment. **Council Regulation (EC) No 950/97** (EC,

1997b) on improving the efficiency of agricultural structures recasts the provisions outlined in EC Reg. 2328/91.

Council Regulation (EEC) No 866/90 (EC, 1990 and amendments) on improving the processing and marketing conditions for agricultural products. That offers help with investments (at a rate of 50% of eligible expenditure in Objective 1 regions and 30% in other regions) which “guide production in keeping with foreseeable market trends or encourage the development of new outlets for agricultural products, in particular, through facilitating the production and marketing of new products or of high-quality products, including organically-grown products”. **Council Regulation (EC) No 951/97** (EC, 1997c) on improving the processing and marketing conditions for agricultural production, recasts the provisions outlined in EC Reg. 866/90.

Council Regulation (EEC) No 1360/78 (EC, 1978), amended by EC Reg. 746/93, encourages the formation of producer groups in order to remedy the structural differences affecting the supply of agricultural products in certain regions, resulting from insufficient producer organisation. **Council Regulation (EC) No 952/97** (EC, 1997d) on producer groups replaces EC Reg. 1360/78 and 746/93. It applies in Italy, Belgium, Greece, Spain, Portugal, Ireland, Austria, Finland and certain regions in France and has the same objectives as EC Reg. 1360/78 with the additional requirement that producer groups apply common rules of production, in particular on product quality or use of organic practices.

4.1.2 Other EU legislation

Council Regulation (EC) No 2200/96 (EC, 1996b) the newly reformed fruit and vegetable regime covers growers of organic food among others. It provides aid for recognised producer organisations to bring about greater market orientation, to improve quality, handling, marketing and value and to encourage environmentally sound practice.

4.2 Review of the current situation

4.2.1 Implementation of EU regulations

An overview of EU Regulations which have been used to provide support for marketing and processing activities is shown in Table 4-1. In spite of the fact that one of the priorities established for the application of EC Reg. 866/90 is investment relating to organic farming products, in most countries hardly any of this type of investment has been identified. Actual organic enterprises or organisations which have benefited under this regulation and its amendments have been identified in eight countries (AT, DE, ES, FI, GB, IT, NL, SE). Provision has been made for the organic milk sector in the Danish programming document but no recipients have been identified. Following a review in Luxembourg, a budget has been set aside which specifically targets organic operators under this legislation, however this has not yet been approved.

In Germany, EC Reg. 866/90 is implemented on a national level under the “Principles to Support the Improvement of Market Structures”. Each *Bundesland* draws up a “sectoral plan” for its own region. Three *Länder* (*Bayern, Nordrhein-Westfalen* and *Hessen*) target organic farming in their sectoral plans. Although organic enterprises appear to have received only a small proportion of funding throughout Germany as a whole, the share of the funding is as high as 13% for the three *Länder* which specifically target organic farming under 866/90. In Spain and the Marche region of Italy organic viticulture projects have received funding. In the UK, the organic sector has received a relatively high proportion of funding through 866/90 which is implemented through the Processing and Marketing Grant (PMG). This grant was closed in England in March 1996 but continues to operate in the rest of the UK. In the current programme (1994-1999) seven companies have so far received awards, four in England, two in Wales and one in Scotland. Denmark and Austria have included provision for investments in the processing of organic products in the Single Programming Documents under EC Reg. 866/90 and its amendment EC Reg. 951/97 respectively.

Few countries identified specific awards to the organic sector under EC Reg. 2328/91. In Germany, this regulation has been used to fund direct marketing initiatives, particularly in Niedersachsen. Some organic farmers in the Marche region of Italy have received funding for land purchase and improvements.

Both Austria and Finland have included support for organic producer groups in their programming documents for EC Reg. 952/97, although these have yet to be approved.

Germany provides support for marketing and development projects under EC Reg. 2078/92 in some *Länder*. The Agriculture Ministry in Schleswig-Holstein, for example, has established funding to improve sales of organic products in Schleswig-Holstein. This is linked to the introduction of payments for continuing organic farming under EC Reg. 2078/92. In Pays de Loire a regional development project which aims to

encourage the settlement of new farms, improve competitiveness, and encourage marketing, organisation and promotion of products, is part funded through EC Reg. 2078/92.

In Ireland, the Objective 1 structural funds programme (see next section for more details) provides grant aid to farmers, groups, companies or co-operatives for the provision of facilities for grading, packing, storage and distribution of organic produce, and aid to recognised bodies for marketing and promotion in support of organic farming.

4.2.2 Implementation of national/regional programmes

Support on a national and regional level varies considerably from country to country. A number of countries have legislation, grants and/or support programmes available on a national level through which organic enterprises can and have received funding. The most interesting interventions on a regional level are taking place in Germany and Austria (see Table 4-2). There are also some regional development schemes which include support for marketing and processing activities in the organic sector. These are covered in the next section (Regional and Rural Development Schemes).

Support for marketing development has been most widespread in Austria, Germany and Denmark. Denmark and Austria were the first countries to provide support for market development in 1987 and 1989 respectively. The Danish organic farming support scheme from 1987 (the forerunner of the support scheme implemented under EC Reg. 2078/92) had awarded a total of 21.4 MECU for marketing, processing and publicity by the end of 1992. The Agriculture Act in Austria provided 4.52 MECU in 1989/90 to organic farming organisations to build up the marketing and extension infra-structure. Organic enterprises in these countries can now receive funding on a national level through the Innovation Scheme and the Marketing Improvement Scheme in Austria, and in Denmark through the Green Fund, the organic support regulation (Developmental projects) and the Order on Support for Development of Agricultural and Fisheries Products. The latter has specific provision for organic farmers and processors who receive up to 50% of the additional costs compared to the 40% available to their conventional counterparts.

Table 4-1: EU legislation under which organic enterprises/projects have received funding for marketing and processing activities

EU funding	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE
Regulation (EEC) 866/90 (and amendments)	✓ ¹		✓	(✓ ²)	✓	✓ ¹	nd	✓ ³			✓ ⁴	(✓ ⁵)	✓ ⁶		✓ ¹
Regulation (EEC) 2328/91 (and amendments)			✓			nd	nd				✓ ⁴				
Regulation (EC) 952/97	(✓ ⁷)					(✓ ⁷)									
Regulation (EEC) 2078/92			✓ ⁸				✓ ⁹								

Source: Own data

nd = no data

¹ Support under amendment EC Reg. 951/97

² Provision has been made for the organic milk sector in the country programming document, but there has been no uptake identified

³ The Processing and Marketing Grant has not been available in England since 1996, but is still operational in Wales, Scotland and Northern Ireland

⁴ Marche region only

⁵ A review of EC Reg. 866/90 for horticultural, viticulture and potatoes recommended financial support of 4 MLUF be set aside for the period 1997-1999 to improve the marketing of organic products

⁶ *Stimuleringsregeling investering markt- en concurrentiekracht*

⁷ Provision specifically for the organic sector is made in the country programming documents, but these have yet to be approved

⁸ Available in some Länder only

⁹ Pay de Loire regional project

Table 4-2: National and regional support for marketing and processing in the organic sector

Scheme	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Investment support	✓ ¹		(✓)	✓ ⁵						✓ ⁹						(✓)		✓ ¹⁴
Marketing & processing improvement	✓ ²		✓ ⁴	✓ ⁵				✓ ⁷		✓ ⁹					✓ ¹²	(✓)		✓ ¹⁵
Direct marketing	(✓)		(✓)	✓ ⁵														
Market innovation	✓ ³		(✓)	✓ ^{5,6}									✓ ¹⁰					
Demonstration & knowledge transfer			(✓)	✓ ^{5,6}									✓ ¹¹					
Producer co-operatives			✓ ⁴	✓ ⁵														
Other grants and subsidies			(✓)	✓ ⁶				✓ ⁸			(✓)					(✓)	✓ ¹³	✓ ¹⁴

Source: Own data

✓ = available, (✓) = available only in certain regions

¹ Special Guidelines for Investment Support (Sonderrichtlinie für die Förderung von Investitionen)

² Marketing Improvement Scheme

³ Innovation scheme

⁴ Principles to Support the Marketing of Products according to Specific Production Rules

⁵ Order No. 934, 25.10.96 on support for development of agricultural and fisheries products

⁶ The Green Fund

⁷ Marketing Development Scheme

⁸ Sector Challenge

⁹ OPARDF: Development of Organic Farming (Sub-measure (e)). See Section 5 for details

¹⁰ Stimuleringsregeling innovatie markt- en concurrentiekracht

¹¹ Subsidieregeling demonstratie- en kennisoverdracht

¹² Support for marketing within organic production (Beslut om bidrag till marknadsfrämjande åtgärder inom den ekologiska produktionen)

¹³ PGLF (Farmers and Forestry Support Guarantee Fund)

¹⁴ Rural Development Fund NO

¹⁵ Development of New Products and Markets Grant (Tilskudd til utvikling av nye produkter og markeder for jordbruksvarer)

Only Germany and Denmark have national programmes that exclusively target organic farming as opposed to the whole agricultural sector. The guidelines to support the marketing of products according to specific production rules (*Richtlinie zur Förderung der Vermarktung nach besonderen Regeln erzeugter landwirtschaftlicher Erzeugnisse*) was introduced in Germany to provide support for organic producer co-operatives and processing enterprises. The “specific production rules” refer to EC Reg. 2092/91, extended to include guidelines for livestock (EC, 1991a). One of the reasons behind the introduction of this measure was because many organic farms were unable to achieve the required minimum production quantities that EU measures supporting recognised producer groups required. In Denmark, support is available through the organic support regulation for developing projects concerning collection, manufacturing and marketing of organic agricultural products and also information and public relations activities. Denmark has also implemented an action plan for the development of organic farming which includes support for new marketing initiatives (for more details see section 10.2).

Both Germany and Austria have several regional programmes and subsidies which support a range of initiatives such as direct marketing. The German *Länder* in particular have initiated a wide range of marketing support schemes, some of which are exclusively available to organic operators. Although the majority of these programmes are market focused, the main objectives of these programmes are to strengthen regional marketing structures rather than the marketing infrastructure for organic products, although this is clearly an indirect result of such support. Even those projects which specifically target organic agriculture have a regional aspect to them. Some regions in France also have schemes to support organic farming which focus on regional development. Unlike many of the regional programmes in Germany which emphasise marketing and processing, the French schemes target the development of the organic sector as a whole including extension, research and development as well as marketing (see next section for more details).

Other significant marketing development schemes operate in Norway (the Development of New Products and Markets Grant) which targets organic farming as its main objective, and the UK Marketing Development Scheme which has awarded a number of non-capital grants to the organic sector.

Although Italy, the Czech Republic and Switzerland have no specific support schemes to provide funding for market development, the organic sector has received grants, loans and subsidies from regional and local government. In the Czech Republic, both the Ministry of Economy and the Ministry of Agriculture provide small loans, the former to support small organic processing enterprises, and the latter to organic producers through the PGLF fund. In the Puglia (Apulia) region of Italy, the Istituto Agronomico Mediterraneo is managing a multidisciplinary and integrated project, part of whose aims are to develop the marketing of organic products from that region. Also, the regional government in Tuscany has signed an agreement in conjunction with other agencies/organisations to encourage the development of organic

agriculture and animal husbandry. This agreement includes the provision of training, advice and information. It aims to encourage 30% of existing farms to convert within three years. A similar agreement has been signed in Emilia Romagna. From 1995/96 some Swiss cantons started to include funding for the promotion of regional marketing projects (including organic) within their budget for agriculture. As in Germany, the main objectives of such awards are to promote the regional rather than the organic element of products.

4.2.3 Main organisations promoting market development

Each country has at least one organisation which plays an active role in market development of the organic sector. Their activities range from the provision of information and promotional material to supporting and representing particular interest groups such as producers. Table 4-3 gives an overview of some of the main types of organisation which have a particularly active role in promoting and developing the market.

Private sector of non-profit organic organisations have actively developed the market in most countries. Many of these organisations are producer organisations and are also standard setting bodies with their own trademarks. In Germany, marketing organisations have been set up which are closely linked to the producer organisations. Producer co-operatives are a particularly important development for the organic sector. Group marketing through producer co-operatives is a means of co-ordinating supply and overcoming problems of fragmentation and discontinuity of supply. This also enables organic producers to market more effectively to the supermarkets which are becoming increasingly significant players in the market for organic food, particularly in Switzerland, United Kingdom, Denmark and Austria.

Table 4-3: Organisations active in market development

Organisation	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Producer organisations	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Processors/retailers organisations		✓	✓	✓					✓				✓				✓	
Consumer organisations		✓	✓					✓		✓	✓			✓	✓			
Supermarkets	✓	✓	✓	✓			✓	✓								✓		
Research organisations																✓		
Producer co-operatives			✓	✓				✓	✓						✓	✓		
Farmers' unions						✓										✓		

Source: Own data

4.3 Public expenditure

Public expenditure for marketing development schemes is summarised in Table 4-4. In 1996, total public expenditure in the EU for marketing and processing activities in organic farming has been estimated to be in the range of 5-10 MECU. The estimate is broad, as data could not be obtained for a number of countries. For a more detailed breakdown of public expenditure please see the relevant country section in Lampkin et al. (1999).

A comprehensive coverage of public support for marketing and processing in organic farming is difficult to obtain as very few countries have a separate budget for organic farming within any such schemes, and therefore there is no distinction made between funding for organic projects and funding for general agricultural projects. For example, for Germany Table 4-4 shows only that funding which has been awarded through support programmes open exclusively to the organic sector and therefore only represents part of total funding that has been spent on that sector. Table 4-5 refers only to Germany and contains data on spending which has been used for organic farming in the framework of general marketing support programmes, i.e. programmes which are open to all the whole agricultural sector as opposed to just the organic sector.

Budgetary provision for marketing and processing activities in organic farming has however been identified in national/regional programmes in Germany and Denmark. In addition, Luxembourg and three German *Länder*, have budgeted for organic farming projects within EC Reg. 866/90 programmes. France, Ireland and Switzerland have also budgeted for marketing activities in organic farming under regional development programmes. These are covered in Section 5.

Several countries have developed Action Plans containing policy targets for the future development of the organic sector (DK, FI, FR, NL, NO, SE). Under these plans support for market development is available, however they have not yet been implemented in Finland or the Netherlands (for more details see Section 10.2).

Table 4-4: Public expenditure identified for market development in organic farming in the EU and three non-EU countries (MECU)

Year	AT ¹	BE ²	DE ³	DK ⁴	ES	FI	FR	GB ⁶	GR	IE ^{2,6}	IT	LU	NL	PT	SE ⁹	CH ²	CZ	NO
1993	nd	o	nd	nd	o	nd	nd	o	o	0.025	0.033	o	0.78 ⁸	o	0.537	o	o	0.241
1994	0.635	o	0.760	nd	o	nd	nd	0.232	o	o	0.073	o	0.556	o	0.437	o	o	0.239
1995	0.228	o	2.588	nd	0.209	nd	nd	0.643	o	o	0.077	o	0.714	o	0.268	o	o	0.241
1996	0.566	o	3.341	0.530	o	nd	nd	0.233	o	o	2.31 ⁷	o	nd	o	0.247	o	o	0.244
1997	0.470	o	1.660	0.43 ⁵	o	nd	nd	0.163	o	o	0.58 ⁵	o	nd	o	0.000	o	o	0.249

Sources: Own data, DE expenditure details compiled by FAL

nd =no data available; o= no spending identified; Figures are based on actual spending data unless otherwise indicated.

¹ Breakdown of EC Reg. 951/97 funding for organic projects not available

² Marketing projects partly financed through regional development schemes (see Section 5)

³ Data are results of a survey (see Nieberg et al., 1999) received from only some *Länder* ministries (BW, BY, BB, HH, MV, NS, NW, RP, SN, ST), and refer only to expenditure for special programmes, which clearly target organic farming (including GAK EC Reg. 866/90 programme). The above figures do therefore not reflect total spending in this area in Germany. Some additional spending that occurs under different headings, for example under general marketing support programmes, is included in Table 4-5. For more expenditure details and for a breakdown of the figures on a *Länder* basis see Lampkin et al. (1999).

⁴ Does not include Green fund expenditure on organic projects

⁵ Budget figures

⁶ Financial year from 6/4 to 5/4.

⁷ Includes organic spending under EC Reg. 866/90 for period 1994-1997

⁸ Amount spent between 1990 and 1993

⁹ Financial year changed to calendar year in 1996; year 1995 covers 18 month period.

Table 4-5: *Public expenditure in Germany for the support of organic farming in the framework of general marketing support programmes and projects (MECU)^a*

Bundesland	1994	1995	1996	1997
Bayern	Expenditure up to 31.12.1997: 0.555			
Brandenburg	0.313	0.647	0.673	0.205
Hessen	0.218	0.313	0.224	0.182
Niedersachsen	na	0.187	0.183	0.153
Rheinland Pfalz	na	na	0.037	na
Sachsen	0.026	0.053	0.105	0.102
Schleswig-Holstein	0.013 ²	0.007	0.005	0.002
Thüringen	0.008	0.0035	0.061	0.034

Source: Nieberg et al. (1999)

na = not applicable

¹ Table does not cover all DE as it only contains data from those ministries that responded to the survey by Nieberg et al. (1999)

² Budget figure

4.4 Evaluation

EC Reg. 2078/92 and other conversion support programmes have had a significant impact on the development of the supply base of organic food in most of the study countries. At the same time, developing the marketing structure and establishing new retail outlets is of key importance if the sector is to be able to deal with this expansion (Lampkin, 1996a). Experiences in countries such as Denmark show the importance of governmental support for good consumer information about organic farming and market development.

Mid-term evaluations of EC. Reg. 866/90 reveal that in the three German *Bundesländer* which target the organic sector for support Bayern, Hessen, Nordrhein-Westfalen uptake has been less than expected. Restrictive eligibility requirements have been identified as one of the barriers to greater uptake of EU support. In Germany, for example, this resulted in the introduction of the national programme to support the marketing of products according to specific production rules. Under EC Reg. 952/97 to support the formation of producer groups, both Austria and Finland have relaxed such requirements as the nationally defined limits of turnover and minimum number of members for organic producer groups. Another obstacle to greater uptake of market and processing support programmes is the lack of awareness (both among the organic sector and administrators) of what is available to the organic sector, which was evident from the responses of some countries to this section of the questionnaire.

Experiences in Germany suggest that regional programmes, such as support for the sale of regional products through direct marketing and

support for producer co-operatives, have had a significant impact on the development of marketing structures in some regions. Direct marketing is a well-established marketing strategy for organically produced food in Germany and has been an important source of income for organic farmers. An analysis of such marketing support for organic products in Sachsen concluded that it can increase the number of organic processing enterprises and the volume of processed raw materials. Stabilisation of existing organic enterprises encourages the entry of more producers and sales and marketing organisations such as distributors into the organic sector (Jansen, 1997). Such regional programmes can encourage greater networking and increased producer co-operation to enable producers not only to ensure adequate and reliable supply, but also offer greater variety and strengthen their bargaining position. This is particularly important when supplying to the supermarkets or specialised organic dairies. Greater producer co-operation can also benefit direct marketing, enabling producers to offer a greater variety of foods or share the costs of marketing investments. In countries where the response of supply has been less dramatic there is considerable potential for expansion of small-scale marketing initiatives. Schmid (1994) suggests that support for such initiatives is particularly helpful for new organic farmers in the initial stages. What at first may appear to be a step back from mainstream to niche, may in fact give the impulse for stimulating the organic food sector both on the demand and supply sides (Latacz-Lohmann and Foster, 1997). An interim evaluation of the Finnish programme for processing and marketing of agricultural products (covered by EC Reg. 951/97) indicated that aid to upgrade production capacity has enabled small meat sector enterprises to process organic meat, thus increasing the value added and demand for meat (Volk and Aaltonen, 1998).

However, a niche marketing structure which is unable to deal with large quantities, can in the face of dramatic increases in supply lead to a bottleneck effect whereby a gap exists between supply and demand. The excess supply puts pressure on prices and the surplus ends up being sold through conventional channels at conventional prices. This is a situation to which production-oriented organic aid schemes in isolation from market-oriented can contribute (Hamm, 1997). In contrast, the Danish organic farming support scheme devoted part of the funding towards the build up of marketing structures and publicity. An evaluation of this development support concludes that projects have been carried out which have resulted in increased trade in organic products. Because of the developmental projects, extension and information activities, a knowledge base of production and dissemination of that knowledge has resulted in a higher level of expertise in the organic farming sector. This 'professionalisation' of organic farmers and the entry of more full-time farmers has resulted in increased marketing through more mainstream channels as opposed to farm-gate and marketplace sales. It is suggested that developmental projects in the future should work towards establishing sales, marketing and distribution organisations in the organic sector (PLS, 1992). A comparison between the German and Danish cases outlines the benefits of joint marketing strategies and concludes that the development of marketing strategies will ultimately lead to greater efficiency of organic farming subsidies because this will enable producers to meet the requirements of manufacturers, retailers

and consumers, resulting in a more elastic demand, increased production and higher producer prices (Hamm and Michelsen, 1996)

4.5 Summary and conclusions

EU support for marketing and processing activities in the organic sector has been identified in at least nine countries. National and regional level marketing support is most widespread in Austria, Germany and Denmark. Some countries provide no significant support for development of the market or marketing infrastructure. Total public expenditure in 1996 in the EU for marketing and processing activities in the organic sector was approximately 5-10 MECU.

Support for small-scale, regional initiatives has been particularly successful in helping to build up regional marketing networks that are able to overcome some of the problems of operating on a very small scale. When successful, such smaller initiatives will also encourage the entry of new operators into the sector. In order to enter the mainstream market, however, there appears to be a need to develop a diverse marketing structure, capable of handling large quantities. Experiences in Germany indicate that conversion payments in isolation, though having boosted the development of organic production, tend to be unsustainable in that they increase competition between producers, thus increasing pressure on prices and impeding further development of decentralised retail outlets, making organic farmers dependent on continued subsidisation. The Danish example suggests that more market-oriented support schemes can help overcome some of these problems.

The apparent limited uptake by the organic sector of funding in some countries can partly be explained by possible gaps in the data, due to difficulty in obtaining accurate data from the ministries, the majority of which do not distinguish between organic and non-organic projects. In addition, the Objective 5a measures are incorporated into the Single Programming Documents (SPDs) of Objective 1, thus making it perhaps even more difficult to identify organic projects funded under specific Objective 5a regulations in those regions.

However both Germany and Austria have identified restrictive eligibility requirements as being a barrier to uptake of some schemes, in particular where minimum production quantities and/or eligible product types are concerned. A possible explanation for this is that the organic sector structure is too underdeveloped to take advantage of support programmes offered which suggests the importance of addressing the needs of the organic sector at all levels when designing effective support programmes. Greater provision of information about funding possibilities might also improve uptake of support programmes.

In what in many countries is a relatively undeveloped sector, support for marketing and development of the marketing infrastructure can play a crucial role in helping the organic industry establish diverse marketing structures that are capable of dealing with large quantities and overcome problems such as discontinuity of supply and lack of widespread distribution.

5 Regional and rural development schemes

The premium markets and opportunities for adding value through processing offered by organic farming are perceived in many cases to offer potential for improving incomes and employment in rural areas. As a consequence, in some countries organic farming has become a focus of regional and rural development programmes.

This section aims to identify the policy support for regional and rural development that has affected the organic sector. This includes funding provided within the framework of EU rural development policy and any national or regional programmes. This section also provides a brief overview of organic projects and organisations which have received funding under such policy programmes.

5.1 Regulatory framework

The EU provides funds for integrated rural development under four of the six Objectives in **Council Regulation (EEC) No 2081/93** (EC, 1993) amending EC Reg. No 4253/88 on the tasks of the Structural Funds. Three main mechanisms to promote rural development can be identified:

- Regional programmes (Objectives 1, 5b, 6)
- Horizontal actions (Objective 5a - see Section 4)
- LEADER programmes (Links between actions for the development of the rural economy). Eligibility extends to Objectives 1, 5b and 6 areas.

All of the above may be used to fund initiatives in the organic sector.

Objective 1 aims to promote the development and structural adjustment of regions whose development is lagging behind (<75% average EU GNP). These regions are mostly rural areas where agriculture and forestry constitute the main land use and play a major part in income generation and employment. Measures for the development of these regions are deployed through Community support frameworks or Single Programming Documents (SPDs), and the instruments for rural development and agriculture aim mainly at improving competitiveness and efficiency in agriculture, diversifying agriculture and extending the range of economic activities which is at present over-dependent on agriculture. See Table 5-1 for eligible regions.

Objective 5b aims to promote the development and structural adjustment of rural areas with a low level of socio-economic development which are not eligible under Objectives 1 or 6. Other criteria are a high share of agriculture in total employment, a low level of agricultural income and low population density. 30% of the funding goes towards restorative measures to reduce pollution, including the encouragement of production activities entailing diversification and based on a high quality

environment, such as “green tourism”, services associated with research and development on food and agriculture and organic farming.

Objective 6 is a new objective which was added on the accession to the EU of Finland and Sweden. It relates to Arctic regions which are remote and have low population density, but which could not be included under the other Objectives as their income per head is relatively high. The principal aim in these areas is to prevent depopulation and improve rural life. In addition, emphasis is put on increasing the value added to raw materials obtained from the region by processing them in the region itself and on measures to make better use of local potential (EC, 1997a).

The **LEADER Community Initiative** was first launched in 1991 to support rural development projects designed and managed by rural associations and local partners. Following the first LEADER programme (1991-1993), LEADER II has been established for the period 1994-1999 (EC, 1994). The specific objectives of LEADER II are:

- to encourage model local rural development initiatives;
- to support innovative, demonstrative and transferable measures which illustrate the new directions for rural development, including environmental protection and improvement in quality of life;
- to increase exchanges of experiences and transfers of know-how through a community rural development network;
- to support cross-border development projects.

Table 5-1: Objective 1 eligible regions

Austria	Burgenland
Belgium	Hainaut
Germany	Brandenburg, Mecklenburg-Vorpommern, east Berlin, Sachsen, Sachsen-Anhalt, Thüringen
Greece	Entire country
Spain	Andalucía, Asturias, Cantabria, Castilla y León, Castilla-La Mancha, Ceuta y Melilla, Comunidad Valenciana, Extremadura, Galicia, Canary Islands
France	French overseas departments, Corsica, Avesnes, Douai, Valenciennes
Ireland	Entire country
Italy	Abruzzi ('94-'96), Basilicata, Calabria, Campania, Molise, Apulia, Sardinia, Sicily
Netherlands	Flevoland
Portugal	Entire country
United Kingdom	Highlands and Islands Enterprise area, Merseyside, Northern Ireland

Source: EC (1993)

5.2 Review of the current situation

5.2.1 Implementation of EU Legislation

Under consideration here are those projects which are mostly or wholly organic. Under Objectives 1 and 5b of the Structural Funds (excluding LEADER) funding has been awarded to organic projects in nine countries (AT, BE, DE, DK, FR, GB, IE, IT, SE) (see Table 5-2). When considering the implementation of EU regional development legislation in the organic sector, it is important to bear in mind that funding for the organic sector is often 'hidden' in the sense that the organic element of a project or initiative may only form one small part of the whole. For example, organic farming is mentioned in the regional Objective 5b programming documents of AT, DE, DK, under a variety of headings ranging from support for quality products and development of a regional identity to diversification and improved marketing through, for example, direct marketing.

Of the 11 countries eligible under Objective 1 (Table 5-1), the organic sector has received funding in three countries (BE, IE, NL). Both Ireland, and the Netherlands target organic farming in their Objective 1 SPDs. Sub-measure (e) of the Operational Programme (OPARDF) in Ireland aims to ensure a regular supply of organic produce to the market by providing grant aid to farmers, groups, companies or co-operatives for the provision of facilities for grading, packing, storage and distribution of organic produce, and aid to recognised bodies for marketing and promotion in support of organic farming. In 1996, grant assistance was paid to four marketing and promotion projects and seven capital investment projects. Among the aims of the SPD for Flevoland in the Netherlands is the diversification of agricultural production through conversion to organic farming and the realisation of a business and training centre for sustainable farming (EC, 1997a). The Flevoland region has now developed into one of Europe's major centres of organic agriculture with the help of Objective 1 funding.

The Portuguese Objective 1 programme, PAMAF (Programme to Support the Modernisation of Agriculture and Forestry), targets funding towards products which are subject to an inspection and certification system. To date no organic sector projects have been identified as recipients of funding.

The organic sector has been more successful in obtaining funding through Objective 5b. Support has been awarded in eight countries (AT, BE, DE, DK, FR, GB, IT, SE) for a variety of initiatives:

- establishment of direct marketing outlets;
- development of local/regional production and consumption structures;
- promotion of regional products;
- research;
- technical advice;
- training.

No funding has yet been awarded to organic projects through Objective 6.

Organic projects which have received funding within the LEADER programme are underway in at least nine countries (DE, ES, FR, GB, GR, IE, IT, NL, PT). Table 5-3 provides more details of some of these projects.

Table 5-2: EU legislation under which organic enterprises/projects have received funding

EU funding	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE
Objective 1		✓		na		na				✓		na	✓		na
Objective 5b	✓	✓	✓	✓			✓	✓	na	na	✓			na	✓
LEADER			✓		✓		✓	✓	✓	✓	✓		✓	✓	

Source: Own data

✓ = yes, na = not applicable (because not eligible for funding under the specified measure)

Table 5-3: Examples of initiatives which have received LEADER funding¹

	Project	Main activity/objectives
DE	Organic Milk Marketing, Saarland	Marketing of regionally produced organic milk in co-operation with a farm dairy, in order to encourage other enterprises to convert.
	Wulkow, model of sustainable development, Brandenburg	Commune set up by about ten villages as a model of 'global ecological development'. Its activities include diversification of agriculture to organic production.
ES	Organic crops and livestock rearing, Navarre	With the intention of adapting local farm produce to market trends, and protecting the environment
FR	European Ecological Centre, Terre Vivante, Rhône-Alpes	The aim of the centre is to present technical solutions, taking account of environmental protection. At the centre practical illustrations are offered, including organic vegetable gardening.
	Du bleu bio à Lajoux, Franche-Comté	Organic production as a means to maintaining a cheese co-operative and its retail outlet
GB	Llanerchaeron Home Farm, Wales	A model farm which will integrate gardens, woodland projects and aim at converting to organic status. Biodynamic farming principles will be demonstrated.
GR	Ecological farm of Kria Vrissi, Central Macedonia	The farm houses a centre for research, experimentation and training in the area of organic farming.
IE	Programme to develop organic agriculture in South and West Ireland (IOFGA)	Programme to develop organic farming launched in 1996 and run in conjunction with the Dutch organic group Agro Eco. Involves Ireland's agricultural advisory service, Teagasc and others involved in LEADER.
IT	Alce Nero co-operative, Marche	The Alce Nero co-operative has organised an integrated system for the harvesting, processing and marketing of organic cereals. It has also organised activities to promote organic methods.
	Organic Farming and Rural Ecodevelopment, ARPA, Sardegna	Includes provision of advice to farmers, investments in small food processing plants, marketing promotion, training of farmers and retailers
NL	Marketing organic products in short channels: the EKO-Boerderijen Route, Drenthe	Development of an "ecological cycling route" linking organic farms in order to develop the direct sale of organic products
PT	Support for organic agriculture in Beira Interior	Support for ARAB (Associação Regional de Agricultores Biológicos) to promote organic agriculture.

Source: Own data and LEADER database

¹ The above table includes only a selection of projects with some LEADER involvement. See relevant country section in Lampkin et al. (1999) for a more complete, but not fully comprehensive listing. Organic farming can form a major part of a LEADER supported initiative, but in many cases organic farming is only one element making identification difficult.

5.2.2 National and regional programmes

Policies to encourage regional development and rural diversification through specific market support measures are included in the previous section. Only Switzerland has a national programme (REGIO PLUS) for regional development through which the organic sector can receive funding, which comes into operation in 1998. The objectives of the REGIO PLUS programme are similar to those of the EU LEADER programme.

Significant regional development initiatives for organic farming have occurred in certain regions of France and in Germany. In the Rhône-Alpes region, for example, the PIDA (Integrated Programme for Agricultural Development) is a regional development policy designed to set up projects for the whole production and processing system. PIDA Agriculture Biologique (PIDA Bio), is one of the 50 projects implemented under the programme which specifically targets organic agriculture. PIDA Bio was introduced in 1997 with the aim of reducing the gap between supply and demand at a national and regional level by increasing the number of organic farms (from 500 in 1997 to 1 000 in 2 000) and area (from 7 000ha in 1997 to 21 000ha in 2 000). It targets a range of actions including market development, production, technical advice, and research. In the German *Land* Hessen several initiatives, co-ordinated by the Ministry exist including regional marketing, such as farmers markets and various other regional development programmes for organic farming, funded by a variety of sources including the EU structural funds.

5.3 Public expenditure

The public expenditure for regional development is presented in Table 5-4. A comprehensive coverage of regional development support in organic farming is difficult to obtain as very few countries have a separate budget for organic farming within any such schemes, and therefore there is no distinction made between funding for organic projects and funding for general agricultural projects. Total public expenditure in 1996 in the EU is approximately 10 MECU. This estimate excludes LEADER funding awarded to the organic sector. For a more detailed breakdown of public expenditure please see the relevant country section in Lampkin et al. (1999).

France, Ireland, the Netherlands and Switzerland have budgeted for marketing activities in organic farming under regional development programmes. In France, however, budgetary provision for organic farming under the Objective 5b programme in the Rhône-Alpes region has been rather optimistic, and at the end of 1997 was considerably under-utilised.

In Germany, several programmes and/or projects target organic farming in a regional development context. Most of these concern marketing activities and development of the distribution infrastructure and have been included in the Section 4 (Marketing and Processing).

Table 5-4: Public expenditure identified for regional development programmes in the EU and three non-EU countries (MECU)

Year	AT	BE	DE	DK	ES	FI	FR ¹	GB ²	GR	IE ²	IT ³	LU	NL ⁴	PT	SE ⁵	CH	CZ	NO
1993	nd	0.40	nd	0	nd	nd	0.11	0	0	0	0	na	nd	0	0	0.03	na	nd
1994	nd	0.46	nd	0	nd	nd	0.82	0	0	0	0	na	0.06	0	0	0.02	na	nd
1995	3.79	0.32	nd	0.07 ⁶	nd	nd	0.72	0	0	0	0	na	0.06	0	0	0.07	na	nd
1996	3.72	0.41	nd	1.95 ⁶	nd	nd	1.06	0.79	0	0.02 ⁶	0	na	0.06	0	0.32	0.09	na	nd
1997	3.62	0.55 ⁶	nd	3.86 ⁶	nd	nd	0.41	0.16	0.62 ⁷	0.21 ⁶	0.10	na	0.06	0	0	0.01 ⁶	na	nd

Source: Own data

nd =no data available; 0= no spending identified. Actual expenditure figures are given except where indicated

¹ Data includes Rhône-Alpes, Pays de Loire and PACA only

² Financial year from 6/4 to 5/4

³ LEADER funding awarded but amount and dates unknown

⁴ Figure for Northern regions. In addition a total of 0.46 MECU has been spent over an unknown period (0.025 MNLG in Southern regions and 1MNLG in Flevoland)

⁵ Financial year changed to calendar year in 1996; year 1995 covers 18 month period

⁶ Budget figures

⁷ LEADER funded project

5.4 Evaluation

The structural funds allow for a wide range of environmental investments in agriculture, which is clearly appropriate to organic farming. An evaluation of the environmental measures in Objective 5b states that “productive activities are encouraged entailing diversification and based on a high quality environment, such as organic farming” (EC, 1995). However, regional development policies do not simply concern the environment. Traditional farming communities are becoming less dependent on agriculture in many European countries. In some areas, an ageing population and very low incomes are leading people to abandon agriculture. Rural development policies at European level have been implemented seeking to reverse these trends in various ways by:

- Increasing and maintaining agricultural employment;
- Diversification;
- Creation of new income opportunities;
- Protection of the environment;
- Sustainable use of natural resources;
- Increasing and diversifying the activities of small and medium-sized enterprises;
- Enhancement of the quality and value-added level of products;
- Improved marketing of local niche products.

All of the above elements seem to be present in organic farming (Pugliese, 1997). It combines a sustainable model of agriculture with the prospect of significant development of local economies through the encouragement of local production, processing and consumption patterns and the development of local marketing networks, which leads to an increase in the ‘economic value’ of a region (Vogtmann, 1996). Organic farming has always been involved in such ‘regionalisation’, not only out of necessity due to the small supply base, but also because a close relationship between producer and consumer, and in some cases with local retailers and processors, has long been a feature of the ‘organic culture’. The existence of networks and co-operation between actors in the organic sector has led to the success of many regional initiatives (Lorenzen, 1998; Seidl, 1998).

Regional development involves bottom-up approaches initiated by local actors with innovative approaches to development which can lead to new trading criteria and bring economic advantages (Jasper, 1998). New forms of co-operation between groups of farmers, processors, traders and if possible consumer groups on a regional level are important. Subcontractor assessment in Switzerland suggests that even supermarket chains can be important promoters of regional development and conversion to organic agriculture, through the support of the production of organic regional specialities. Such characteristics can now be supported through regional development policies but it is also important

to ensure that the necessary structures exist, in terms of size and capacity, to 'organise the operation downstream' by developing markets and distribution networks capable of meeting market demand (Sylvander, 1993).

An evaluation of the Development of Organic Farming sub-measure of the OPARDF Objective 1 programme in Ireland assesses the ability of the marketing provision to develop the market in what is a relatively undeveloped market (Fitzpatrick, 1997). The Irish situation is characterised by limited range of products, discontinuity of supply, lack of widespread distribution and a high proportion of imports. The need for investment support is reinforced by the recent increases in area under organic conversion as a result of the REPS scheme. In light of these production developments the evaluation suggests that a "substantial impact is implicit". It concludes that the investment support is likely to be effective in supporting the development of both production and marketing of organic produce thus overcoming some of the problems outlined above and ensuring greater supplies.

Organic farming is a field that is being developed by many new LEADER II groups. Although these developments are still at an early stage, subcontractors in several countries such as Greece and Spain identified LEADER II as a great opportunity for organic farming. The potential for organic farming within LEADER to contribute to the rural development process is greatest when initiatives are designed to suit the needs of a region, product, farming structures and/or the specific environments. The "cultural and environmental underpinnings" of organic agriculture can help reinforce this development. For example, the development of local markets and direct relationship with the farming culture can be optimised in conjunction with the development of rural tourism (Sylvander, 1995). Decentralised marketing structures for organic products can be the starting point for further economic and social development. In this way, a stronger regional market can be built up which then offers a basis for the development of trading relationships with other regions and possibly even internationally (Woodward et al., 1996).

5.5 Summary and conclusions

The evaluation of organic farming in the context of regional development demonstrates that organic farming can be an integral part of the regional development process and can help meet many of the goals of regional development programmes.

Limited uptake of EU regional development funding in organic farming implies that this link is not explicit and indicates that potential clearly exists to give organic farming more prominence within regional programmes.

Experiences in the Rhône-Alpes region of France, where budgetary provision has been under utilised, suggest that, like schemes for marketing and processing (Section 4), it is important to take into account the needs of the organic sector when designing effective support

programmes and to provide sufficient information about funding possibilities. Assessing regional needs, in tandem with the requirements of the organic sector, could contribute directly to a self-sustained development trajectory, with less need for outside intervention.

The evaluation of the Irish Objective 1 programme suggests that the impact of grant aid on the organic sector, and consequently the development of the region is significant. The evaluation also emphasises the need to prioritise grant aid towards the unique conditions and requirements of a particular region and/or sector to be of greatest benefit.

Total public expenditure in the EU in 1996 has been estimated in the range of 9-10 MECU. This excludes LEADER funded projects in the organic sector.

6 Organic production standards, inspection and certification

Organic production standards, inspection and certification systems play a key role in underpinning the market for organic products, with the aim of protecting consumers and bone fide producers alike. Council Regulation (EEC) 2092/91 created, for the first time, a common legal definition covering all EU member states and trade with third countries. The regulation aims to protect consumers and to create a level playing field for trade in organic products. This and similar initiatives elsewhere in the world means that organic farming is currently the only approach to farm assurance, agricultural sustainability and agri-environmental policy that is supported by a legal definition and international agreements.

The aim of this section is to provide an overview of the legislative framework for organic farming in the study countries and their inspection and certification systems. Some EU countries had a national legal definition before EC Reg. 2092/91 was implemented, whereas others had private sector standards (such as the AGÖL-standards in Germany). In some countries, these national definitions were replaced once EC Reg. 2092/91 was implemented, whereas in other countries previous national definitions are still in operation, for example because of the lack of standards for livestock production in EC Reg. 2092/91.

6.1 International legislation and definitions of organic farming

6.1.1 EC Reg. 2092/91

Council Regulation (EEC) No. 2092/91 and subsequent amendments aimed to create a balance between supply and demand of organic produce (through increased consumer recognition; development of the market; higher prices) recognising that this type of production may contribute to the reorientation of the CAP through reduced intensity, environmental protection and protection of the countryside. Greater transparency of the production process should ensure greater consumer confidence, and fair competition across the EU through common standards for production, labelling and inspection. In July 1996, a draft regulation for organic livestock production was published and since then has undergone a process of consultation and consideration by the Environment and Agriculture Committees and the European Parliament.

EC Reg. 2092/91 required that from 1st January 1993, all fresh and processed produce of plant origin must meet the organic standards laid down in the regulation and specifies that producers and other operators must submit their undertaking to the inspection system. The regulation is legally binding in all member states and has to be respected by any

imported products. The member states are required to set up an inspection system operated by one or more inspection authorities. This can include inspections carried out by private sector bodies, but if those are involved a Competent Authority must be designated to oversee and administer correct implementation (see Table 6-1).

Table 6-1: Administration of inspection and certification schemes under 2092/91

Country	Competent Authority
AT	9 Regional Food Authorities (<i>Landesebensmittelbehörden</i>) under Bundeskanzleramt
BE	Ministry of Small Enterprises, Traders and Agriculture
DE	Designated control authorities in each <i>Bundesland</i>
DK	The Plant Directorate; The Veterinary Services
ES	The Agricultural Boards of the Autonomous Communities (Regional Governments) under the Ministry of Agriculture
FI	a. Plant Production Inspection Centre (KTTK) under The Ministry of Agriculture and Forestry (MMM) b. National Food Administration (EV) under The Ministry of Trade & Industry (KTM) c. National Product Control Agency (TVK) under The Ministry of Welfare & Health d. Provincial Government of Åland Islands
FR	Direction Générale de l'Alimentation (DGLA) under Ministry of Agriculture
GB	United Kingdom Register of Organic Foods Standards (UKROFS) under the Ministry for Agriculture Fisheries and Food
GR	Office of Organic Products at the Ministry of Agriculture
IE	Department of Agriculture and Food
IT	Ministry for the Co-ordination of Agricultural Policies (MIPA)
LU	ASTA (Administration des Service Techniques de l'Agriculture)
NL	Ministry of Agriculture
PT	General Directorate of Rural Development , Ministry of Agriculture (DGDR)
SE	Swedish Board of Agriculture; Swedish National Food Administration; Swedish Consumers Agency
NO	Norwegian Agricultural Inspection Service; Norwegian Food Control Authority

Source: Own data

Most EU countries (FR, GB, GR, IE, IT, LU, PT) have designated one government body to act as the Competent Authority to administer the inspection and certification of organic farms under EC Reg. 2092/91. These are mostly a department or office within a Ministry (usually the Ministry of Agriculture). BE, DK, FI, SE, have two or three bodies each responsible for different operational areas. For example, in Denmark the Plant Directorate is responsible for primary production and the Veterinary Service controls the processing and retailing of organic food. In Austria, Germany and Spain, the competent authorities are appointed at regional level, such as the nine Regional Food Authorities (*Landeslebensmittelbehörde*) in Austria and the Agricultural Boards of the Autonomous Communities (regional governments) in Spain.

Although Norway is not a member of the European Union, EC Reg. 2092/91 has been implemented through Norway's membership of EEA and the already existing national standards (Debio standards) were adjusted to conform with the EC Regulation.

6.1.2 Prosecutions in breach of EC Reg. 2092/91 and other definitions

Prosecutions under EC Reg. 2092/91 have been identified in five countries (DE, DK, IT, ES, NL). Outside the EU Regulation successful prosecutions have taken place in Belgium, Italy, Spain and Sweden. No prosecutions were identified in other countries, although in some countries such as the UK and Czech Republic, operators have undergone investigations for possible breaches of trading legislation and received warnings or fines. The introduction of a similar EU livestock regulation should make it easier to prosecute fraudulent trading in this area, especially in those countries where no legal basis for the standards exists.

6.1.3 International definitions

IFOAM (the International Federation of Organic Agriculture Movements) was established in an attempt to harmonise standards developed by private/voluntary sector bodies. The aim of the IFOAM Basic Standards is to provide a common internationally accepted definition of organic farming. They are minimum standards, which provide certification programmes with a basis for developing detailed production standards. The IFOAM standards have been a major influencing factor on the development of national laws regulating organic farming, the EC Reg. 2092/91 and the *Codex Alimentarius* guidelines.

Codex was set up by the FAO and WHO to set global food standards in order to limit the extent to which national governments and blocks of governments such as the European Community can interfere with free trade. The *Codex Alimentarius* guidelines on food produced and labelled as organic are currently being developed.

6.2 National legislation and definitions of organic farming

Historically, initiatives to establish standards for the inspection and certification of organic agriculture have come from private sector organisations. The majority of these organisations were not established for the purpose of setting up such a control system, but rather started out as advisory bodies, producer and/or consumer organisations.

Whereas some countries developed national legislation in the 1980s defining standards for organic farming, others have had no such legislation and inspection and certification has been carried out more or less independently of the state by private sector bodies. Greece is the only country in the study with no national definition or inspection system for organic farming prior to EC Reg. 2092/91.

6.2.1 Legal and other state definitions

Six countries (AT, DK, ES, FI, FR, CH) had national **legal** definitions for organic farming prior to EC Reg. 2092/91 (see Table 6-2). The standards cover both plants and livestock except in Finland where only crop production is included. Here the standards were applied on farms covered by the former conversion grant scheme and subsequently the agri-environment programme for organic farming and are legally binding only for those farmers who are covered by the organic farming support scheme (about 90% of all organic farmers). In all these countries, EC Reg. 2092/91 has replaced the national legislation for crop production and the legislation on livestock standards continues to run parallel to 2092/91. Of these countries Denmark, France and Spain introduced a state logo for products which meet the state standards.

The Norwegian national *Regulation on Production and Labelling of Organic Agricultural Production* implemented EC Reg. 2092/91 in 1996. The regulation is what is known as a "reference regulation". Its main objective is to implement 2092/91 in Norwegian legislation. The Debio standards on plant production and animal husbandry were established as a supplement to the national regulation for areas not covered by EC Reg. 2092/91.

In Switzerland, the new regulation for organic agriculture (Bio-Verordnung, 1997) is similar to EC Reg. 2092/91 and is administered by the Swiss Federal Office of Agriculture under the Ministry of Economy.

Belgium and the Czech Republic are currently in the process of preparing legal standards, the former for livestock production to run parallel to EC Reg. 2092/91. In France, an extension of the national standards for livestock production has been approved by the Ministry of Agriculture.

Two countries (CZ, GB) have national definitions which, although not based in legislation, have been set up or are supported by the state. In 1987, the United Kingdom Register of Organic Food Standards (UKROFS) was established by the government to set a common minimum standard for the UK. UKROFS became the UK Competent Authority under EC Reg. 2092/91 and continues to operate an inspection

and certification system. In 1993, the Czech Ministry of Agriculture developed Suggested Methods for Organic Agriculture (*Metodický Pokyn pro Ekologické Zemědělství*). This defines the criteria which should be followed so that agricultural products can be labelled organic with the state logo 'BIO'. The standards are similar to EC Reg. 2092/91 standards for crop production and IFOAM standards for livestock.

6.2.2 Non-legal or private sector definitions

Most countries have definitions for organic production which, although not legally binding, have been long established and are widely recognised and used by producers (see Table 6-2). All of these standards conform at least to EC Reg. 2092/91, but the majority are stricter.

Six countries (BE, CH, DE, FI, IT, PT) have nationally recognised standards which were set by umbrella organisations which represent producer, consumer or other interest groups.

In Switzerland, the main organic farming organisations under the lead of the Research Institute for Organic Agriculture (FiBL) set common standards and a common logo for organic agriculture for the first time in 1980. In 1981, a producer umbrella organisation was founded (VSBLO/Bio Suisse) in an attempt to harmonise the standards and promote organic products through a common logo. The standards are stricter than the EC Reg. 2092/91.

Similarly, the Belgian Biogarantie umbrella organisation was set up in 1987 with representatives of producer and other organisations. Biogarantie set standards for both crop and animal production aiming to incorporate every organic logo in Belgium under one common logo.

The first organic standards in Finland were developed in 1986 by the Union of Organic Farming (Luomu-Litto), an umbrella organisation for producers and other organisations promoting organic agriculture. The standards are slightly stricter than EC Reg. 2092/91, but are comparable to IFOAM standards for livestock.

Agrobio, the only national organic organisation in Portugal, was created in 1985 not only to represent organic farmers but also to propose a definition of organic farming and set corresponding standards.

Table 6-2: National definitions for organic agriculture

Country	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
National legal definitions	✓	-	-	✓	✓	✓	✓	(✓) ⁴	-	-	-	-	-	-	-	✓	(✓) ⁵	✓ ⁶
Year adopted	'83	na	na	'87	'89	'90	'80	'87	na	na	na	na	na	na	na	'93/ '97	'93	'96
Replacement of legal definition by 2092/91	✓ ¹	na	na	✓ ¹	✓ ¹	✓	✓ ¹	✓ ¹	na	na	na	na	na	na	na	na	na	✓ ¹
National non-legal or private sector definitions	✓ ³	✓ ³	✓ ³	✓ ²	✓ ²	✓ ²	-	✓ ²	✓ ²	✓ ²	✓ ³	✓ ²	✓ ²	✓ ³	✓ ²	✓ ³	-	✓ ²
Year adopted	nd	'87	'84	'81	nd	'86	na	'73	'93	'82	'88	88/8 9	'92	'85	'85	'80	na	'86

Source: Own data

✓ = yes; - = no; na = not applicable, nd = no data

¹ For crop production only

² Private sector body standards

³ Umbrella organisation standards

⁴ National (non legal) definition which is supported by the state

⁵ Legislation currently in preparation

⁶ 'Reference regulation' which implements EC Reg. 2092/91

In Italy, the first “Standards for Organic Farming” were approved in 1988 by the National Commission “*Cos è biologico*” (What is organic?) which acted as an umbrella organisation until the foundation of AIAB. AIAB was founded as an umbrella organisation to continue the work of the above-mentioned commission. Following the implementation of EC Reg. 2092/91 in 1992, other organisations appeared on the certification market, some of which were former members of AIAB such as Bioagricoop and AMAB.

The AGÖL umbrella standards in Germany have provided a widely recognised definition for organic agriculture since 1984. The first umbrella standards were agreed in 1984 by SÖL and this function was then taken over by AGÖL in 1988. The so-called AGÖL-(Rahmen-)Richtlinien in fact set minimum standards for producer organisation members, and therefore are not valid for individual producers who must comply with the individual standards of their producer organisation. The standards are stricter than 2092/91 and are more comparable to the IFOAM Basic Standards. Unlike BE, CH, and FI, AGÖL does not have a common logo, but is now in the process of developing one in an attempt to reduce confusion and improve transparency for consumers who are currently confronted with several different logos for organic products.

Austria has two umbrella organisations operating separate standards for their members, ARGE Bio-Landbau and Österreichische Interessensgemeinschaft für biologische Landwirtschaft.

In all the above countries except Switzerland, the crop production standards have been replaced by the EC Reg. 2092/91 (except for certain plant categories not covered by 2092/91) as the minimum legal requirement, but use of logos is still bound to the organisations’ standards.

There are also major private sector bodies which, in the absence of any legal definition or common umbrella standards, can be said to provide national definitions for organic farming. Operators conforming to such standards are entitled to use the organisation’s logo or trademark. Of those countries with **no** legal definition, six (GB, GR, IE, IT, LU, SE) have more than one private body operating their own sets of standards, but usually one set of standards in each country has become the most widely used and recognised, for example the Soil Association standards in the United Kingdom and the KRAV standards in Sweden. Two countries (NL, NO) have only one private sector body operating its own standards.

All of these standards have been replaced by EC Reg. 2092/91 as the **minimum legal** requirement for crop production, but continue to operate their own standards in addition.

6.3 Inspection and certification

6.3.1 Inspection and certification under EC Reg. 2092/91

Each Competent Authority is responsible for approving bodies to operate inspection and certification schemes under EC Reg. 2092/91 (see Table 6-3). The majority of organisations authorised to carry out inspection and certification are private and the government has a purely administrative role. The Netherlands and Portugal have only one private sector organisation authorised to carry out inspection and certification under EC Reg. 2092/91, whereas in some countries administration, inspection and certification is all carried out by government agencies (DK) or quasi-governmental agencies (ES, FI). In the latter two countries, inspection boards are made up of representatives from organic operators, consumers and regional government.

In Denmark, France and Spain inspected farms are entitled to use the state logos on their products following inspection either by private organisations (FR) or government bodies (DK, ES).

6.3.2 Inspection and certification in non-EU countries

In both Switzerland and the Czech Republic inspection and certification activities are split. In Switzerland, VSBLO/Bio Suisse, Demeter and Migros Bio are the certifying organisations, with their own symbols for their products which are inspected by FiBL or IMO. FiBL is a non-profit organisation which carries out inspections for all three labels above. IMO (*Institut für Marktökologie*), a commercial organisation, works mainly outside Switzerland for Naturland Germany, VSBLO/Bio Suisse and firms. In the Czech Republic, inspection is carried out by the only inspection body, KEZ on behalf of the Ministry of Agriculture which awards inspected products the state logo.

In Norway, the only organisation authorised to carry out inspection and certification is Debio, which also inspects and certifies on behalf of the Norwegian Demeter organisation (*Demeter-forvaltningen*).

Table 6-3: Main bodies involved in certification and inspection of EC Reg. 2092/91

	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Private bodies	19	2	59 ¹				3	6	3	3	9	2	1	1	2	na	na	1
Government bodies				2	17 ²	See note ²		1								na	na	

Source: Own data

na = not applicable

¹ Approximate figure

² Regional government bodies (see Lampkin et al. (1999) for details)

Table 6-4: Financial support for inspection/certification

	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Producers	✓	-	✓ ¹	✓	-	-	-	✓ ²	-	-	✓ ⁴	-	-	-	-	✓ ⁶	-	-
Inspection/certification bodies	-	-	-	-	✓	-	✓	✓	-	✓ ³	-	✓	-	✓ ⁵	-	-	✓	-

Source: Own data

✓ = yes; - = no.

¹ Baden-Württemberg: maximum 203.63 ECU to 2092/91 inspected enterprises. Bayern: 40.73 ECU for first 10ha. Schleswig-Holstein: up to 70% of costs for 2092/91 inspection; maximum 509.07 ECU for inspection through an AGÖL member association.

² Subsidy of 43.33 for first 5 ha only

³ Horticultural inspections only 74.31 ECU

⁴ Tuscany: 155.50 ECU per farmer per year for a period of three years where the total cost of certification is higher than the grant. Marche: Max. 310.99 ECU per farmer per year for a period of three years.

⁵ Under the PAMAF Objective 1 programme (see Lampkin et al. (1999) for details)

⁶ 50% of cantons give support of approx. 91-121 ECU per farm per year

6.3.3 Financial support for inspection and certification costs

Producers receive financial support towards their inspection/certification fees in six countries (AT, DE, DK, GB, IT, CH) (see Table 6-4). Of these, the support is available on a **national** level in Austria (through the EC Reg. 2078/92 ÖPUL programme, but not EU co-financed), the United Kingdom (through EC Reg. 2078/92) and in Denmark where producers receive a payment of approximately half their inspection costs and since July 1996 do not pay anything for certification because of budgetary decisions each year. In four countries (FI, FR, LU, CZ), producers receive indirect support through the financial support awarded to inspection and certification bodies which is then passed on to the producer in the form of reduced fees. In the United Kingdom inspection and certification bodies receive financial support for monitoring the EC Reg. 2078/92 Organic Aid Scheme, in Spain regional government subsidises the Autonomous Community Boards and in Ireland inspection and certification bodies receive support for horticultural inspections only. In Portugal, subsidies are available for activities such as the creation and operation of private organisations of certification through the Objective 1 programme (PAMAF) which promotes the certification of quality products.

6.4 Public expenditure

Public expenditure is presented in Table 6-5. This represents expenditure on administration of inspection and certification schemes and any financial support to producers or inspection/certification bodies towards inspection and certification costs. Due to the lack of data in this area, in particular administration spending, it is not possible to estimate total public expenditure for the EU.

In Denmark, inspection and certification was free of charge to farmers up to 1994. Since then, producers receive a payment of approximately half their inspection costs. From July 1996 to the end of 1997 organic farmers did not pay for certification according to a budget settlement. Still under discussion is a budget settlement about whether organic farmers have to pay for certification in 1998 and a proposal that, as part of a new pesticide scheme, pesticide taxes among others should be exempt for organic farmers.

Table 6-5: Public expenditure identified for administration, inspection and certification in the EU and three non-EU countries (kECU)

Year	AT ^{1,3}	BE	DE ¹	DK	ES	FI	FR ^{2,3}	GB ⁶	GR	IE	IT	LU	NL ^{2,3}	PT	SE	CH	CZ ²	NO
1993	0	nd	0	nd	nd	29.85	nd	443.59	0	nd	nd	24.71	nd	nd	nd	80.92	0	228.65
1994	0	nd	218.24	nd	nd	64.62	nd	450.00	0	nd	nd	25.21	nd	nd	nd	98.69	0	238.83
1995	5311.1	nd	426.74	nd	nd	162.52	nd	210.84	0	nd	nd	26.20	152.38	nd	nd	155.27	7.19	356.15
1996	5212.2	nd	555.14	nd	nd	325.97	346.69	227.16	32.73	nd	nd	20.51	74.30	nd	nd	242.36	8.71	705.17
1997	5063.7	nd	1044 ⁵	nd	nd	437.97	nd	173.33	0	nd	nd	19.747	nd	nd	nd	304.14	13.92	713.34

Source: Own data

nd = no data available; 0 = no spending identified; actual expenditure figures are given except where indicated.

¹ Support to producers' inspection and certification costs

² Support to inspection/certification bodies

³ Excluding administration costs

⁴ Bayern only

⁵ Bayern, Schleswig Holstein and Baden-Württemberg only (see Nieberg et al., 1999)

⁶ Financial year from 6/4 to 5/4

⁷ Budget data

6.5 Evaluation

Standards for organic agriculture are intended to promote consumer confidence and prevent the undermining of the market through fraudulent trading. In addition, because of their ongoing revision and improvement, they “reflect the progress and achievements which are leading to an increasingly sustainable organic system” (Geier, 1997).

The introduction of legislation which defines organic agriculture can help avoid confusion among consumers, protect the producer and hence assist the development of the market for organic food (Geier, 1997; Lampkin, 1996a). On the other hand, it can also be said that regulation could act as a discouragement to market growth in the sense that smaller operators (small-scale producers, wholefood shops, in-store bakeries etc.) may be deterred from the inspection and certification process by the cost and bureaucracy involved. Reduced inspection/certification costs may help remove this barrier. Many of the private sector organisations which originally developed standards for their country continue to be heavily involved, often without recompense, in inspection and certification schemes. Currently most of the extra costs have to be borne by producers, suggesting that scope exists for making resources available to such organisations to assist them in their activities (Lampkin, 1996a).

Rundgren (1997) argues that, although the EC Regulation is able to deal adequately with fraudulent labelling and trading, it has not achieved its objectives as successfully as some had anticipated because of a lack of knowledge and understanding of the organic sector by regulatory bodies. Standards defining organic production have in the past largely been developed by the organic movement with an in-depth knowledge of organic production, taking into account factors such as regional variations and requirements. This contrasts with regulations which can be accused of providing prescriptive, detailed and standardised lists which lose sight of the broader objective of the development of the sector. In the context of the EC Reg. 2092/91, this problem is exacerbated by the fact that some sections of EC Reg. 2092/91 are designed to be interpreted by member states rather than applied directly as happens in some countries such as Germany. In addition, prosecutions for breaches in the standards can take place under general marketing legislation and the incentive for the standard setting organisations to catch fraudulent behaviour is high in the interests of protecting the reputation of their trademark.

However, regulations are seen by some to provide a more effective and objective control than a system which is responsible for monitoring itself. This, in conjunction with the introduction of a single regulation as opposed to a variety of standards, can be said to reduce confusion and increase consumer confidence. In Denmark, for example, the state regulation on organic farming, along with the Danish state logo, is thought to be an important reason for the high consumer confidence in organically produced food in Denmark (Willer, 1998). Notably, this regulation was developed with a heavy input from the organic sector in Denmark.

The existence of private sector standards, national regulations and international standards and regulations can be confusing for both consumers and producers, who are required to follow a number of different standards to become accepted in different world markets (Rundgren, 1997). The challenge to harmonise international standards which recognise the varying situations and needs of organic production in different countries and allow international trade has been taken up to a large extent by IFOAM. The IFOAM Accreditation Programme, established in 1992, seeks also to harmonise certification programmes.

Byng (1997) draws a distinction between standards and laws (regulations). Standards are quality systems developed by the organic sector which offer guidance to the operator and can be applied more flexibly than laws. Definitions of organic farming exist at many levels from private sector standards through to the EC Regulation and international standards. The lower the level, the greater the opportunity for the organic sector to become involved in designing and directing the development of standards for their country. To encourage such involvement, Byng suggests that the higher the level of the standards, the less detail there should be. Government should limit its role to the translation of standards into law (in order to fulfil the role of law enforcement) and avoid becoming involved in designing detailed standards without consulting the organic industry. Rundgren argues that recognition of the work of IFOAM and acknowledgement of their standards may provide a basis for involving the organic sector when designing “higher level” regulations such as the EU Regulation.

The development of easily recognisable, common logos may play an important part in improving consumer confidence and reducing confusion to a minimum. The fact that the Danish system has a national logo which is recognised by half of Danish consumers is likely to contribute to the high levels of confidence in the system. According to the Swiss subcontractor, the example of Switzerland shows that even with a private common logo, introduced in 1980 by an umbrella organisation, the promotion of organic products have been very successful and much easier to achieve than with many different logos. Both IFOAM and the EU are currently introducing common logos, as is the German producer umbrella organisation AGÖL. Some inspection and certification schemes are involved in promoting and publicising their logos or brand to ensure greater consumer recognition. Many AGÖL producer member organisations, for example, have set up marketing organisations which are closely linked to the producer organisations.

The introduction of the EC legislation has had a differing impact on the number of approved certification bodies: in France the number has fallen to three, in Ireland it has risen to three and in Germany it has increased from six to over 50 (Tate, 1994). From 1998, all control bodies are required to undergo an accreditation process according to EN 45011 (Article 9(11) 2092/91 which requires control bodies to be of a certain size. This is most likely to result in a reduction of control bodies, especially in those countries where many smaller bodies exist such as Austria and Germany. Although the existence of many inspection and certification bodies may be said to create consumer confusion and the

perceived conflict between organisations may reduce producer confidence, it can also be said to increase competitive efficiency.

6.6 Summary and conclusions

Prior to the introduction of EC Reg. 2092/91, definitions for organic farming existed in all study countries except Greece. Six EU countries (AT, DK, ES, FI, FR, GB) had a national legal definition, eleven EU-countries had long-established standards set by private and voluntary sector bodies.

Standards defining organic production have largely been developed by the private sector (mostly by producer organisations). They are varied and adapted to the conditions, resources and requirements of specific countries and regions.

Such producer involvement in the development of standards has enabled the organic movement to maintain its influence over the development of organic farming. Consumer and producer confidence in the Danish state regulation indicates that the involvement of the organic sector when designing regulations is desirable. The Danish experience also suggests that the development of common logos can lead to increased consumer recognition and confidence.

Financial support is currently provided to inspection/certification bodies in eight countries and directly to producers in six countries. Not only does this provide recompense to private bodies for their involvement in regulatory activities, but it may be an effective way to overcome cost barriers for smaller operators undergoing the certification process.

7 Advice, extension and information

Organic extension services vary considerably between the countries studied. This is in part a reflection of the structure of the extension services for agriculture in general in each country. In some countries, extension for organic farmers is fully integrated into the main agricultural extension service, whereas in other countries the main sources of information are other organic farmers and their producer organisations. It is worth noting that in nearly all studies of organic extension service in Europe advice and information through other organic farmers is regarded as very important.

This section gives an overview of the structure of extension and information provision for organic farming, for farmers as well as for the general public, in the EU and three non-EU countries. Objectives and measures of any specific programmes for organic farming extension at national or regional level are summarised as well as information about public expenditure for organic advisory services. The section also includes an overview of the availability of direct advice to farmers (organic, in conversion and conventional) through farm visits by trained advisors, as well as discussion groups, printed information and pilot and demonstration farm networks. The area of short training courses, which is clearly part of the provision of information, has been included in the following section on training, but there is considerable overlap with this section.

7.1 Regulatory framework

Examples of EU Regulations that have had an impact on the development of extension services, demonstration farm networks and other information services are:

EC Regulation 2078/92 (EC, 1992). Under this programme training for farmers can be supported, more details of the Regulation are provided in Section 2.

Objective 5b (EC Reg. 2081/93). Funding has been utilised to support regional groups or co-ordinators for organic farmers. The co-ordinators provide general information and there is overlap with initiatives described in Section 5.

Level III of the **fourth Framework Programme** for research aims i) to speed up the adoption of new technologies by involving both producers and users of such new technology or ii) to enhance the attractiveness of new approaches in farming by contributing to the message that new technologies or systems have been developed for the benefit of society as a whole. No projects that fall within the scope of this were identified.

Article 8 of the European Agricultural Guidance and Guarantee Fund (EAGGF) which seeks to support pilot and demonstration projects in

agriculture (OJ C303/17/94; with reference to EC Regulations 4256/88; 2052/88 and 2085/93). No projects that fall within the scope of this were identified.

7.2 Review of the current situation

7.2.1 National or regional programmes for organic farming extension

Six countries (DK, FI, GB, NO, SE and CH) have specific national/regional programmes for organic farming extension; three countries (BE, PT and NL) have programmes for demonstration farms. Italy and Germany have programmes in some regions. In Austria, Finland and most regions of Germany and France the main advisory services receive some public funding for the provision of advice on organic farming, even though no specific national/regional programme exists. In Spain, technical support for conversion is mentioned specifically in the organic farming programmes in twelve of the seventeen regions, but so far no region has taken any further steps to provide such a service. The titles of the programmes, the main objectives and measures are summarised in Table 7-1 alongside a short summary of the activities in countries with considerable public support, even when no specific programme exists.

Most national programmes of extension in the field of organic farming have been set up to increase the conversion rate by improving information about organic farming and available aid schemes, so that conventional producers can make an informed decision about conversion. The programmes that include most measures are those in Sweden, Switzerland and Denmark. With the exception of Switzerland the schemes do not specifically aim to provide technical information to existing organic producers. Switzerland included this element as a means to improve the organic farming system, for example by enabling organic farmers to reduce environmental impact or enhance product quality. Organic producers are not explicitly excluded in the Swedish scheme, whereas in the British scheme farmers that are already converting their farms only qualify for farm visits if less than half of their holding is already undergoing certification. The Swedish programme explicitly aims to avoid competition with the commercial extension services that provide more detailed technical or economic advice. No specific conditions apply in any other country.

Table 7-1 National/ regional programmes and public support for organic farming extension in the EU and three non-EU countries

AT	The Ministry for Agriculture and Forestry has offered initial training for advisors in organic farming, leading to a certificate and further in-service training since 1996. In addition some regional co-ordinators are funded under Objective 5b.
BE	A demonstration farm network is included in the national programme under EC Reg. 2078/92, which is aiming to monitor established organic farms and distribute information about their experiences through reports, open days and farm walks. Advice on organic production is also available in two Objective 5b regions Westhoek and Meetjesland.
DE	Specific support programmes for organic extension exist in Hessen (specific department for ecological agriculture in governmental extension service) and Niedersachsen (demonstration farm network under 2078/92). Public support for organic extension in most <i>Länder</i> .
DK	The current and former programmes on organic farming (now under EC Reg. 2078/92) states that conversion planning should be carried out by an approved adviser. Support is available for the preparation of educational and information material (including the training of advisors), demonstration farms, for two advisors that work in the national head office and reduced advisory rates for organic producers.
ES	Extension service for organic producers and technical support for conversion are mentioned in the organic farming programmes in 12 regions.
FI	The drawing up of a Farm Environmental Management Plan (FEMP) is part of the Finnish agri-environment programme (GAEPS) under EC Reg. 2078/92. This should be carried out with a trained advisor and shall include basic assessment of the current level of environmental management and preservation on the farm concerned. The main providers of advice to organic producers and farmers in conversion are the rural advisory centres, which receive approx. 30 % public funding.
FR	Regional agricultural chambers and CIVAM receive public support to provide organic farming advice in most regions.
GB	OCIS, the Organic Conversion Information Service was introduced in 1996. The main objective is to improve information about the Organic Aid Scheme, to ensure that farmers can examine the options carefully and make an informed choice about conversion. In one region an Objective 5b-funded regional co-ordinator is giving direct advice to producers.
GR	No programme
IE	No programme
IT	Initiatives in eight regions (Friuli, Emilia Romagna, Marche under Objective 5b, Apulia, Sardinia under LEADER, Umbria, Lazio, Tuscany). The aim of the regional initiatives is better diffusion of organic farming as an implementation of 2078/92.
LU	An organic farming consultant who is paid 50% by the government has been approved to work with two producer organisations (BioLabel and Demeter).
NL	Regulation to stimulate interest in organic farming (<i>Stimuleringsregeli biologische landbouw</i>) introduced in 1994, includes demonstration farm network.
PT	Demonstration farms are included in the national programme under EC Reg. 2078/92.

Table 7-1 National/ regional programmes and public support for organic farming extension in the EU and three non-EU countries (cont.)

SE	Training, information and demonstration projects within the Swedish environmental agriculture programme (<i>Utbildning, information och demonstrationsprojekt inom det svenska miljöprogrammet för jordbruket</i>) under EC Reg. 2078/92. The purpose of the programme is to facilitate conversion and to improve the knowledge base for organic farming by giving free advice to producers.
CH	Switzerland has had a national extension programme since 1977 that is co-ordinated by the private body FiBL (Research Institute for Organic Agriculture). Regional offices in the four main regions are responsible for the co-ordination of the services in the cantons. The main objective of the programme is to guarantee qualified advice for organic farmers as well as farmers in conversion and to provide adequate information about the subject to other farmers and the advisors. FiBL has offered initial training and documentation for advisors in organic farming and further in-service training since 1987, which is supported financially by the Federal Office of Agriculture and the cantons. In almost all of the 25 cantons there are full-time or part-time advisors for organic farming (often located at agricultural schools), which are paid for by the regional administration of the cantons.
CZ	No programme, some advice is supplied by governmental extension service.
NO	Programme of conversion information introduced in 1998 and is offered by 26 extension rings.

Source: Own data

7.2.2 Overview of advisory activities and services in organic farming

7.2.2.1 Organisations Involved

Extension services are provided by a variety of governmental and private organisations and are funded through various public as well as private sources.

In nearly all countries the **organic producer associations** are involved in extension and information provision as part of their membership services, funded through the membership fee. The services offered vary widely and may include the publication of magazines and/or technical notes and employment of specialist advisors that visit farms. Many associations organise farm walks and open days that are open to non-members and provide information about their certification requirements for interested conventional farmers. In seven countries or regions (AT, BE, DK, GB, LU and some regions of DE and FR) the producers associations have received public support for this work.

Advice and information about organic farming is supplied by the **main agricultural extension services** organised in several different ways:

- extension services of national or regional governments (some *Länder* in DE and IT, CZ, CH, SE);
- agriculture extension services run by farmers organisations (DK, FI, NL, CH);
- regional agricultural chambers (AT, FR and some *Länder* of DE);
- extension rings (some *Länder* DE, NO).

In Austria, the Czech Republic, France and some German *Länder* the governmental advisory services or regional agricultural chambers co-operate directly with the organic producer organisations, the advisors are employed by the former, whereas the supervision of duties might be allocated to a producer organisation.

Private research institutes for organic farming run organic extension services that are partly subsidised by the national or regional governments in Great Britain and Switzerland.

Private consultants, working either independently or in conjunction with companies that purchase organic products or sell inputs to organic producers, are important providers of organic extension in four countries (IE, GR, ES and IT). Private consultancy services are also available in other countries (e.g. AT, DE, GB, NL, SE and CH).

The provision of advice and information has also been included in some programmes funded under the **EU regional development** scheme Objective 5b (AT, BE, GB and IT).

The cost of extension and information varies considerably between the different countries of the EU and within the countries, depending on the structure of the extension services and the public and private support for the sector. Table 7-2 gives an overview of advisory activities that are available in the countries studied.

7.2.2.2 Direct advice

Up to 2 days free direct advice on organic farming is currently available to all farmers in Sweden. Similarly, in the German speaking cantons of Switzerland 0.5 days of advice are available, mainly aimed at farmers in conversion. Up to 1.5 days of free advice is also available to conventional producers in Great Britain (England and Wales only), but organic and in conversion producers do not qualify for the scheme and have to pay full cost rates. In Denmark and Finland, all farmers pay reduced rates for organic farming extension, which is supplied by the farmers' unions. In Denmark, such advice is supported at a higher rate than advice for conventional producers. The details of the Norwegian scheme are not known.

In Austria, France, certain regions of Germany and the French speaking part of Switzerland some advice on organic farming is provided by the regional agricultural chambers, covered by the levy that all agricultural

producers pay. Farmers are likely to be charged for more specialist services. The same applies where organic farming advisors are employed by governmental extension services (DE, IT, CZ).

In some countries, the organic farming producer organisations are the main bodies to supply direct advice (AT, some regions of DE, LU, PT); advice is often restricted to members and is included in the annual membership fee. The producer organisations have received public support for advisory work in seven countries (AT, BE, DK, some regions in DE and FR, GB, LU). Advice supplied by the extension rings is also charged through a membership fee, which covers a certain proportion of the overall costs of the advisory service (some regions DE, NO).

Advice to all farmers (organic, conventional and in conversion) is supplied on a fully commercial basis in four countries (ES, GR, IE, NL). All costs have to either be fully covered by the producers or, as is mainly the case in the Mediterranean countries, are sponsored by NGOs or commercial companies.

7.2.2.3 Regional groups, subject groups, seminars and conferences

Regional groups of producer organisations operate in the majority of countries (10 EU, 2 non-EU countries). They fulfil a very important role in the provision of information through sharing of experience among organic farmers as well by inviting outside speakers. The groups can also help to facilitate regional market development and give social support to the producers of one region. The organisation of such groups is often voluntary, sometimes supported by regional co-ordinators of the producer organisations. Attendance is in most cases open to non-members and is usually free of charge or included in the annual membership fee of the producer organisation. In four countries (AT, BE, GB and IT), regional groups have received support under Objective 5b.

In some countries (e.g. GB, DE and CH) discussion groups for organic farmers of similar farm types exist nation wide or in specific areas, in addition to regional groups. These groups provide a programme of specific meetings, for example for organic dairy farmers. They are usually run by advisory organisations and might either be included in the annual membership fee or carry a subscription charge. In about 12 countries various organisations also offer seminars and conferences, which usually are charged at cost.

7.2.2.4 Publications

Technical information about organic farming in the form of regular magazines, newsletters or bulletins is available in most countries. Costs for a magazine or newsletter are either included in the annual membership fee of the producer associations or carry a subscription charge. In the Czech Republic, the government publishes a monthly magazine. In Great Britain, as part of the OCIS scheme an “info-pack” for interested conventional producers was published that gives a short introduction to the main aims of organic farming, outlines the implications of conversion on various farm types and lists addresses for further information. In Switzerland, two of the main weekly farming newspapers include regular information on organic farming.

7.2.2.5 Demonstration farm networks

Eight countries (BE, CH, DK, DE, GB, NL, PT, SE) have established networks of demonstration farms nation-wide or in some regions. Demonstration farms are experienced and commercial organic producers willing to show their farm to visiting groups. Through a network the farmers are likely to receive some form of compensation for their time and effort and will be supported in developing visual aid material and handouts. Networks are sponsored by public grants (e.g. NL, DK) or private organisations (e.g. GB) and the costs vary considerably, depending on the level of support that is given.

7.2.2.6 Phone helpline

Great Britain has introduced a phone helpline especially for conventional producers who would like more information about organic farming. This service was contracted to an existing organic farming organisation and has proven to be very popular (ADAS, 1997). The Research Institute for Organic Agriculture in Switzerland offers a similar service that is open to all interested farmers.

7.2.2.7 Electronic databases and information services

Electronic databases are slowly developing in the field of organic/ecological agriculture (see also 9.2.1). In Sweden, Germany and Italy electronic agricultural information services contain some information on published literature in organic farming or related subjects but they are not particularly aimed at supporting organic advisors (<http://www.sjv.se/vsc/sll/>; http://www.dainet.de/dain/foren/landwirtschaft/oekologische_landwirtschaftaft/index.htm; <http://www.agraria.it/cedas/>).

Through the umbrella organisations for organic farming associations in France an electronic documentation service is available (supplied by GEYSER) which contains published literature as well as management

notes specifically for organic systems. This information is supplied to the organic farming advisors on request.

The Organic Farming Information Centre in Czech Republic provides an electronic database that is charged for at cost.

7.2.2.8 National co-ordination, training and networks of organic advisory services

Once a certain number of organic advisors in one country is reached some form national co-ordination or an informal national network for these advisors is likely to emerge. Formal national co-ordination of organic extension services through one or several organisations exists in eight countries (DE, DK, FR, GB, NL, SE, CH and NO). To a varying degree these organise regular meetings and training, provide technical backup and material, and produce newsletters specifically aimed at organic advisors (e.g. *Beratungsrundbrief* of the *Stiftung Ökologie und Landbau* (SÖL) in DE).

In Switzerland and Sweden the organic advisors have formed their own organisation, which organise meetings for all advisors.

Training for advisors in organic farming is included in the national programme under EC Reg. 2078/92 in Austria, Denmark and Finland. In some other countries the producer associations organise some training for advisors (e.g. PT, IT).

Further support of the advisors through the development of forms and handouts, standard data collections, visual aid material or computer packages is currently only available in Sweden and to a limited degree in Germany, but also envisaged in Switzerland.

There are currently no European networks to support the provision of advice and extension in organic farming, apart from one training project under the LEONARDO framework that was established in 1998 (see 8.2.2).

7.3 Public expenditure for organic farming extension and information services

Table 7-3 summarises the public expenditure information of organic farming extension and The total public expenditure in the EU for various extension activities dedicated to organic farming in 1996 has been estimated to be in the range 15 MECU. This estimate does includes all extension activities that are particularly targeted towards organic farmers and farmers interested in conversion, but does not cover more general advice that might be provided to organic farmers or otherwise by people who work mainly in a different area. The estimate is broad, as detailed data could not be obtained for a number of countries because there is no or limited public support for extension provision in the field of organic farming or because advice on organic farming is provided as part of a main agricultural extension service and included in the overall budget.

Major adjustments had to be made to the budgets in three countries. In Britain the demand for the free Organic Conversion Information Service was underestimated in the first two years, in particular the demand for helpline provision in the first year and advisory visits in the second year. The Ministry met the shortfall out of other resources. The Swedish government allocated a substantial increase to the organic extension service in the 1995/96 budget, but this was not approved before more than half of the period had already passed, so that not all money could be spent. The amount was then reduced in subsequent years. The Dutch government increased the spending on demonstration and vocational training programmes because of increased demand.

Apart from public spending, provision of advice and extension in organic farming has been supported by several private foundations (DE, GB, SE, CH and CZ).

Table 7-2: Availability of extension activities in the field of organic farming in the EU

Extension activities	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Subsidised advice for organic producers	✓	✓	✓	✓		✓	✓				(✓)	✓			✓ ¹	✓	✓	✓
Subsidised advice to conventional/ in conversion producers			(✓)	✓		✓		✓ ²							✓ ¹	(✓) ³		✓ ⁴
Private / commercial advice	✓	(✓)	✓		✓			✓	✓	✓	✓		✓	✓		✓	✓	
Regional groups	✓	(✓)	✓	✓			✓	(✓)	(✓)		✓	✓	✓		✓	✓		✓
Conferences and Seminars		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓		✓	✓	✓	✓
Publications	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Demonstration farm networks		✓	(✓) ⁵	✓				✓					✓	✓	✓	✓ ⁴		
Phone helpline								✓								✓		
Electronic database			(✓)				✓				(✓)				✓		✓	
National co-ordination	(✓)		✓	✓		✓	✓						✓			✓		✓

Source: Own data

✓=available in the whole country, (✓) = available only on a limited basis or in some regions.

¹ Service available free of charge

² Up to 1.5 days for conventional producers free of charge

³ 0.5 days free advice for producers in conversion in the German speaking cantons

⁴ Starting in 1998

⁵ Niedersachsen only

Table 7-3: Public expenditure identified for organic farming advice and extension in the EU and three non-EU countries (kECU)

Year	AT ¹	BE ²	DE ³	DK ⁴	ES ⁵	FI ⁶	FR	GB ⁷	GR	IE	IT	LU ⁸	NL ⁹	PT	SE ¹⁰	CH ¹¹	CZ ¹²	NO ¹³
1993	nd	264	184	316	0	0	nd	0	0	0	nd	0	92	0	515	578	5.8	638
1994	nd	401	1 559	nd	0	0	nd	0	0	0	nd	0	93	0.05	491	709	10.4	573
1995	nd	628	2 196	889	0	1 238	nd	0	0	0	nd	0	95	0.05	6 517	796	12.7	543
1996	298	639	2 540	611	0	1 813	nd	216	0	0	nd	0	935	0.05	nd	1 193	10.5	915
1997	289	nd	2 515	nd	nd	1 452	nd	578	0	0	nd	nd	905	0	4 138	1 305	4.5	998

Source: Own data

nd = no data available; 0 = no spending identified; figures are based on actual spending data unless otherwise indicated.

¹ Estimate for share of extension services in the overall public support for producer organisations.

² Includes funding for BLIVO, CARAB, Nature & Progrès; figures for Objective 5b funding are not included.

³ Expenditure data from BW, BY, BB, HH, MV, NI, SN, SH. Estimates on the basis of number of advisors for HE, NW, RP (details see Lampkin et al., 1999)

⁴ Approximately 2.8 MDKK per year is given as direct support for consultants to give subsidised advice on organic farming, the remainder is spent on support of backup service and central resources.

⁵ No specific budget, but some spending in regions likely.

⁶ Includes demonstration farms under EC Reg. 2078/92, data for advice financed under 2078/92 are included in section 8, Table 8.3.

⁷ Promotion and administration of OCIS for England and Wales, estimate for Scotland, no data for NI, financial year from 6/4 to 5/4.

⁸ Support for 50% of the wages costs of one advisor has been agreed, but budget is not yet available.

⁹ Spending for demonstration farms and group extension.

¹⁰ Financial year changed to calendar year in 1995; year 1995 covers 18- month period.

¹¹ Contributions from the regional governments to FiBL's regional advisors as well as national co-ordination, estimates of funding for advisors employed by the regions and the federal support for the two national advisory centres.

¹² Estimate does not include public support of extension services for organic farmers.

¹³ Support for extension rings as well as advice and information projects within organic farming

7.4 Evaluation

The evaluation is based on published and unpublished studies of the organic sector in general and organic extension services in particular that were carried out prior to this project and partners' and sub-contractors' comments. The extension provision for organic farming has been evaluated in some depth in five countries (AT, DE, GB, SE and CH), looking at the farmers' satisfaction and the work situation of the advisors as well as the organisational structure.

Initially advice and information about organic farming was supplied almost exclusively by organic farmers and their organisations, advisors were frequently also involved in certification (Gerber, 1996; Gruber and Fersterer, 1998; Santucci, 1993). A professional extension service for organic farming was first established in Switzerland in 1977 by the private research institute for biological agriculture (FiBL). This was followed by the establishment of various different types of services in other countries during the 1980s (e.g. several regions of DE, DK, FR, GB and SE). Nevertheless, in two early studies organic farmers were found to be the most important source of information for organic farmers, even where specialist extension services existed, because the advisors were seen to be lacking practical knowledge and experience (Berg, 1989; Clercq, 1989). Later studies found more consistent client satisfaction when farmers used specialist organic advisory services (ADAS, 1997; Hamm et al., 1996; Svensson, 1991).

Producer associations are involved in some form of extension and advice in almost all the countries studied, varying according to the resources available (in six EU countries they receive public support) and the availability and efficiency of other providers. If organic producer organisations are the main supplier of advice, there can be a problem for farmers outside the organisation to obtain advice, such as interested conventional farmers (Gruber and Fersterer, 1998). Further problems can arise if the same people that are advising farmers are involved in marketing and administration, reducing their time input and commitment to the advisory work. Similarly, carrying out inspections as well as giving advice has led to role conflicts for the advisor/inspector in the past (Bader, 1990; Luley 1997) and inspection and advice are therefore clearly separated in most countries today. However, this current practice was identified as problematic in those countries where the availability of advice is limited (e.g. LU, PT) and the inspectors are often the only knowledgeable people.

As already mentioned, the involvement of the general agricultural extension services in organic agriculture has increased recently in several countries. This represents an improvement for interested conventional producers, as otherwise advice might only be available to members of organic producer organisations. Organic farmers, on the other hand, remain sceptical and perceive such extension services as conventional in structure and approach, and are not confident that they will receive information that is specifically adapted to organic systems (Burton et al., 1997; Gengenbach, 1996; Gruber and Fersterer, 1998; Vogel, 1994).

Problems can arise in the relationship between producer organisations and governmental advisors and the advisors are frequently burdened with other unrelated duties, such as administration. For example in Sweden an increase of administrative duties of the advisors was a direct result of the implementation of EC Reg. 2078/92 (Johannson, 1997). Advisors of mainstream extension services often have to cover a wider range of subjects and personal role conflicts can arise if one person has to advise on organic as well as non-organic production methods (Bader, 1990; Fersterer and Gruber, 1998). The quality of advice on organic farming in mainstream agricultural extension services will depend on the knowledge and experience of the advisors, their other duties and the organisational structure (Fersterer and Gruber, 1998).

In Germany, three types of organisation for organic advisory services with public support exist (extension rings, support of advisors in producer organisations, and organic specialists in governmental extension services) and have been compared in several studies. Essentially these came to similar conclusions that the most effective structure in Germany appears to be the extension ring (*Ökoring*). These extension rings are independent groups of organic farmers governed by a board of members. They employ one or several advisors and receive approximately 50% of the wage costs from the regional government. The main advantages of the extension rings are that the members, because they contribute financially, are more likely to make best use of the advice given and can influence the subjects covered. Disadvantages arise if the organisation is small (one or two advisors) and the advisors have to cover a wide range of subjects. Isolation of the advisors can be a further problem with lack of opportunity for further training and access to up-to-date information. (Bader, 1990; Fersterer and Gruber, 1998; Hamm et al., 1996; Luley, 1997; Schmid, 1996).

Commercial extension services (such as in NL, DK, and GB) have not been the subject of any detailed evaluation. However, their existence alone is proof of some effectiveness in meeting clients' needs. One of the few evaluations of the organic advisory services in Denmark (although not fully commercial) and the Netherlands came to the conclusion that only a limited group of farmers is likely to benefit from such a service. This includes farmers that are achieving an above average income, farmers in the process of conversion or farmers that have a specialist production and encounter very specific problems (Fersterer and Gruber, 1998). Others, such as organic farmers that have converted some time ago or are farming smallholdings are more difficult to reach. In this context the senior organic farm advisor in Denmark described how to provide interesting and stimulating advice for those organic farmers that have converted a long time ago as one of the challenges for the future (Fog, 1997).

However, even with public or private specialist organic extension services, the opportunity to visit other organic farms and for direct exchange of experiences between farmers is very important during the process of deciding whether or not to convert to organic production (Padel, 1994). This is presumably one of the reasons why demonstration farm networks have been established in various countries, but none of

the existing organic demonstration farm networks appears to have been evaluated with regard to their impact on the conversion decision.

Regional groups of organic farmers meet on a regular basis and organise lectures as well as farm walks, most are associated with the producer organisations. Apart from facilitating the exchange of technical information and experience they also enhance the development of regional marketing structures and give social support to the farmers and their families (Luley, 1997).

Some country reports of the whole organic sector have also included some recommendations on extension and advisory services. To improve the delivery of advice to the organic and converting farmer by consolidating the information of the various specialists, especially during the period of conversion to organic farming, has been suggested as important for the future development of the organic extension service in Denmark. Other challenges are providing better advice on marketing and improving the performance of organic farms by supplying information on other environmental improvements such as the use of alternative energy sources (Fog, 1997). Evaluations of the organic sector in the Netherlands and France have suggested increasing and improving the provision of extension for organic farmers (IKC, 1995; Riquois, 1997). Also, the action plans for organic farming in Finland and Norway include increased extension as one way to strengthen the sector. However, none of the documents gives a clear indication as to what are the necessary steps that need to be taken. During periods of rapid growth it is difficult to maintain the quality of professional organic extension services as they face difficulties in recruiting enough advisors with experience in organic farming as well as the necessary communication skills (e.g. Kallio, 1994).

There is currently no clear consensus on what constitutes an “organic advisory service”. Organic farming itself poses a challenge to scientists and advisors to regain a holistic vision of agriculture (Santucci, 1993). The farmers have to be recognised as experienced partners and important contributors of information in organic advisory work (and research) and an organic advisory service needs to move away from “the advisor/expert” mentality of traditional agricultural extension (Schmid, 1996). A farming system research and extension approach might therefore be best suited for organic advisory services (Santucci, 1993). Other models of knowledge networks for sustainable agriculture (e.g. Röling, 1994) are based on the assumption of market failure and are therefore not wholly applicable to the organic sector, where the market is an important driving force (Padel, 1997). To further develop concepts for organic extension services in the various countries and circumstances, covering extension goals, client base, extension methods, and subject areas, is thus an important step in improving such services and a prerequisite for further expansion.

On-going evaluation is an important basis for further development of any organic extension service (Schmid, 1996). Further improvement can be achieved through increased national co-ordination of the regional provision (Kilcher et al., 1996). The limited national support and co-ordination for organic extension services has also been identified as a problem in Austria (Fersterer and Gruber, 1998), Italy and Great Britain.

The following list contains the main tasks for such a national co-ordination of organic advisory services for Switzerland, which is relevant to other countries and in a wider context:

- To provide training courses for advisors (new entrants into organic extension as well as in-service training).
- To provide information and documentation for the advisors (e.g. technical notes, slide collections, extension folder for farmers, statistics).
- To develop support tools for advisors (e.g. computer packages, forms, checklists, standard data collections).
- To develop and update concepts for organic extension work and training programmes.

7.5 Summary and conclusions

Information about organic farming is available in most countries through the organic producer organisations and the exchange of practical experience between organic farmers and growers is an important source of information for organic producers.

A professional organic advisory service was first established in Switzerland in 1977 by the private research institute for organic farming (FiBL). The advisory services fulfilled an important role in providing a link between researchers and farmers, enhancing communication disseminating research results.

Today some professional advisory services for organic farming exist in the majority of countries in various types of organisations:

- main extension service for agriculture (run by farmers' organisations or the government);
- independent specialist advisory services or extension rings;
- organic producer organisations as part of their membership service;
- private consultants or company advisors (in conjunction with purchase of organic products or sales of inputs, especially where other provision is limited).

All types of organisation have advantages and disadvantages in meeting the needs of conventional farmers that are interested in organic farming, organic farmers and farmers in conversion. Mainstream services are more accessible to conventional producers, whereas specialist organic advisory services more likely to meet the needs of experienced organic producers.

Eleven of the countries studied currently have some national or regional programmes for organic farming extension or demonstration farms. Most programmes have the aim of facilitating a more widespread uptake of organic farming and in seven countries there are part of EC Reg. 2078/92 implementations. They cover one or several of the following

measures: direct advice for organic and in-conversion producers, direct advice for conventional producers considering conversion, demonstration farm networks, publications, training for farmers and advisors (see Section 8), phone help-lines and electronic databases.

In 1996, public support was given to advice and extension for organic farming in eleven countries, in four countries no support has been given, for three countries no data were available. The total public expenditure in the EU for various extension activities dedicated to organic farming in 1996 has been estimated to be in the range of 10 to 15 MECU.

As a result of increased demand, the budget for conversion information services had to be increased in two countries (GB and SE). Organic extension work is supported through private foundations or organisations in five countries.

Public support is either given to the mainstream agricultural extension service, to independent organic advisory services or to organic producer organisations. In Germany, where several funding models could be compared, public support to independent organic extension rings was found to be the best solution, because of the focus on advisory work and financial contributions of the farmers to the service.

In nine of the studied countries, some national co-ordination and training for the “organic” advisors is available, yet no international co-operation between different providers exists. The lack of further support for the organic advisors in most countries is a clear weakness of the extension services, leaving advisors without in-service training and access to up-to-date information. There is also a need for the development and maintenance of other support tools such as standard data collections, computer packages and electronic databases.

The recruitment of trained and experienced personnel is a great problem for all organic extension services in periods of rapid growth of the organic sector. This can only be overcome through offering intensive in-service training to new entrants to organic advisory work. This would require additional funding on top of any regular public support to organic advisory services.

The availability of specialist advice on organic production for interested conventional and organic producers is in most countries still limited and is likely to hinder the further uptake of organic production methods. To increase the availability of advice, at a price the farmers are willing to pay, should therefore be an important part of any strategy to expand organic production. However, due to the diversity of current development, the types of organisations that provide organic advisory service and the varying experiences, different strategies for the improvement of the current situation will apply in each country.

8 Training and education

This section gives an overview of the opportunities for training and education in organic farming in the EU and three non-EU countries and the public funding that is committed to such programmes. An overview of the regulations sets the context for a description of programmes of introductory training courses for farmers, mainly funded under EC Reg. 2078/92, and teaching of organic farming as part of the national curriculum in high schools. The description of other training opportunities in organic farming focuses on special qualifications in organic production at technical and academic level. The evaluation reviews recent studies of training opportunities and provides the background for some conclusions.

8.1 Regulatory framework

EC Reg. 2078/92 (OJ L215 30.07.92) - Under the agri-environment programme training for farmers can be supported (more details in Section 2).

One **LEADER** funded initiative has offered short courses for farmers (see Section 5 for further details of LEADER).

LEONARDO aims to foster trans-national co-operation in vocational education and training by bringing together the diverse experiences across Europe and devising innovative approaches to training methodology, content, delivery and materials in order to improve the quality of training policy and practice. One project in the field of organic farming was identified.

SOCRATES (ERASMUS, EURYDICE) aims to promote student mobility, trans-national co-operation and distance learning in higher education (OJ C278/94). A network of 10 universities received support for curriculum development.

TEMPUS forms part of the overall programme of the EU for the economic and social restructuring of the countries of Central and Eastern Europe (PHARE) and former Soviet Union (TACIS) (OJ L257 09.90). No specific projects in the field of organic farming were identified.

A number of training initiatives in organic farming have received support through the **European Social Fund**. Such funding usually depends on targeting the training for people that were previously unemployed, although under Objective 4 and 5b skills upgrading is also possible.

Council Regulation (EEC) No. 2328/91 on improving the efficiency of agricultural structures includes support for vocational training projects that are connected to schemes to encourage conversion and extensification of the production. No specific projects in the field of organic farming were identified.

All other national/regional programmes or initiatives have taken place outside the framework of any specific EU legislation.

8.2 Review of the current situation

8.2.1 National programmes for short courses for farmers in organic farming

Eight EU countries have national/regional training programmes for short courses for organic farmers, most of which are part of the national/regional implementation of EC Reg. 2078/92. Details of the programmes are summarised in Table 8-1. Attendance at such an introductory course is compulsory in order to qualify for payments under Finnish, Austrian and Portuguese agri-environment programmes. Farmers in Denmark qualify for cheaper loans if they have attended a 4-week course.

However, even where no specific programme exists, short courses for farmers (introduction to organic production, mainly 3-5 days) are available in most countries. Only Great Britain and Luxembourg do not offer short courses for farmers on a regular basis. The courses are offered by private or public organisations specialising in continuing education. In most countries, the organic producer organisation themselves offer short courses for farmers or are directly involved in the development of course content and teaching. More advanced courses on specific topics for farmers are available, for example in Germany.

8.2.2 National/regional programmes for education and higher education in organic farming

Five countries have included organic farming as a compulsory subject in the national curriculum for agricultural education in higher education (AT in 1994; DE in 1995; DK in 1997; NL in 1994, and CH in 1996).

In Germany, the Bund-Länder Commission for Planning of Education and Research approved a pilot project for training in ecological agriculture (*Modellversuch ökologischer Landbau*) at the University of Kassel in 1995, linked to the first academic degree in this field. The main aims of the pilot project are to provide information about the development of the teaching programme; evaluate the specialisation through a survey of graduates and potential employers; further curriculum development; prepare reports and organise interdisciplinary events so that the curriculum and experience of this specialisation can be of benefit to other institutions (see <http://www.wiz.uni-kassel.de/foel/Lehre.html>).

Table 8-1: National/regional training programmes in organic farming for farmers in the EU

AT	Participation in a 3-day course “Introduction to organic farming” has been compulsory for farmers who receive grants, since the introduction of the organic aid scheme in 1992. This was incorporated into ÖPUL, the Austrian programme under EC Reg. 2078/92. The course is offered by 23 approved institutions.
BE	The Ministry of small enterprises, traders and agriculture (DG6 – research and development) has supported a training programme in organic farming for farmers since 1995. The aim is to foster the productivity and competitiveness of plant and animal production whilst reducing production costs; to improve the quality and image of farm and food products and research their non-food use, and to support the development of sustainable agriculture.
DE	Schleswig-Holstein supports a specialisation in ecological agriculture at one agricultural high school and obligatory courses on organic agriculture in all agricultural schools with the objective of providing a technical qualification and professional knowledge in organic farming. Niedersachsen has included guidelines for the support of training courses on agriculture and the environment in the programme under EC Reg. 2078/92, which was implemented in 1996.
DK	Training courses for farmers are supported by the Danish Directorate for Development in Agriculture and Fisheries under the Danish EC Reg. 2078/92 programme.
ES	Some specific courses for organic farming feature in the Spanish training programme under EC Reg. 2078/92. A short introduction to organic farming is included in general agri-environmental training.
FI	Short courses are compulsory for farmers who receive grants under EC Reg. 2078/92.
NL	The Regulation for EU training courses for farmers (<i>Bijdragsregeling EG cursussen</i>) was introduced in 1994, now part of Legislation: NO J94 12372. The aim of the scheme is to influence the behaviour of farmers, to speed up adoption of environmentally friendly measures.
PT	Training courses for farmers and technicians are part of the national programme under EC Reg. 2078/92.
SE	The training, information and demonstration project within the Swedish environmental programme for agriculture is part of the Swedish programme under EU Reg. 2078/92 (<i>Utbildning, information och demonstrationsprojekt inom det svenska miljöprogrammet för jordbruket</i>), implemented in 1995. Objectives are to promote the development of organic production with special emphasis on facilitating conversion and provision of an opportunity to deepen knowledge in organic farming, through education, information and demonstration projects.

Source: Own data

8.2.3 Training and education opportunities in organic farming

All training opportunities in the EU and three non-EU countries are summarised in Table 8-2. A detailed listing of all colleges and schools that offer training in organic agriculture has been published by IFOAM (Spohn and Geier, 1995).

8.2.3.1 Agricultural schools and high schools

Apart from those countries where organic farming has been included as a subject in the national curriculum for agricultural schools (AT, DE, DK, NL, CH) courses in organic farming are taught at some agricultural schools or high schools in France (*lycée agricole*) and in Norway.

Voluntary courses in organic farming that do not lead to any qualification are taught at *Naturbruks-gymnasier* in Sweden and one *Folkehøgskole* in Norway.

8.2.3.2 Technical / vocational qualifications

Agricultural colleges have specialised in organic farming techniques in seven countries (AT, DE, DK, ES, GB, NL, NO). These specialist agricultural colleges usually place emphasis on practical as well as theoretical education. They have college farms that have been converted to organic production and are utilised as part of the curriculum. Similar qualifications in organic horticulture are available in four countries (FR, GB, IE, NO).

Some organic farming modules are also taught at other agricultural or horticultural colleges depending on flexibility in the main curriculum and the initiative of individuals.

In Austria and Germany, several places teach so-called *Ökowirt* courses, usually one-year courses for previously unemployed people offering some additional qualification in organic farming. In six countries (AT, BE, ES, GB, GR, IT) courses for unemployed people have been co-financed by the European Social Fund.

8.2.3.3 Academic qualifications

At an academic level, Germany was the first country to introduce a chair in organic farming in 1981 at GhK (Gesamthochschule Kassel, Witzhausen) in Hessen. Chairs are now also established at other German universities and colleges and at universities in Austria, Denmark, Finland, the Netherlands, Sweden, Switzerland and Norway. The same German university now offers a specialisation in organic farming in the last year of a BSc degree in agriculture. A specialisation is offered in GB as part of a rural resources management degree. One university in the Czech republic also offers a BSc degree. Postgraduate qualifications in ecological agriculture are offered at four universities (BE, DE, NL and CZ).

As a result of the ERASMUS funded European Group for Curriculum Development in ecological agriculture, in which 10 agricultural universities participated, three universities in Germany, Denmark and Great Britain offer a joint one year specialisation in ecological agriculture at BSc level from 1998. This specialisation is intended to cover all aspects of organic agriculture and train people to work in various sectors in the organic industry. It is envisaged that additional universities will become involved in teaching the specialisation, and that continuing curriculum

development work will lead to a common programme in agro-ecology at Master's level, which will allow further specialisation.

At universities in twelve countries (AT, DE, DK, FI, GB, GR, IT, NL, SE, CH, CZ, NO), optional modules are taught as part of academic qualifications in agriculture, and students have the opportunity to choose topics from the field of organic agriculture for their final dissertation.

Private schools and colleges offer training in bio-dynamic agriculture in several countries (DE, GB, IT, NL, SE, CH, and NO). The courses are either short residential courses or offered as an ongoing accompaniment to practical training on bio-dynamic farms. None of the courses leads to any formally recognised qualifications.

8.2.3.4 Continuing education for other professionals and the general public

Courses for other professionals (e.g. advisors, inspectors) and/or the general public are offered in ten countries by similar organisations to those that offer short courses for farmers (more details of in-service training for advisors in Section 7).

8.3 Public expenditure for education and training in organic farming

Data for public expenditure for training and education in organic farming is presented in Table 8-3. Most countries do not have a special budget for training and education in organic farming. The data presented here are based on estimates of funding for colleges and universities that teach specialist courses in organic agriculture leading to a formal qualification (please refer to the table above), and public support for short courses for farmers. Data could not be obtained for all colleges or short courses for farmers. The table is therefore not truly representative of the situation in most countries studied.

The ERASMUS fund of the EU supported the Curriculum Development Group for Ecological Agriculture with a total of 18 000 ECU in the period between 1995 and 1997.

The total expenditure for vocational and practical training in the whole of the European Union in 1996 has been estimated to be in the range of 5 to 10 MECU. This estimate includes short courses for farmers but does not include expenditure for academic training for most countries, except SE and GB.

Table 8-2: Specialist qualifications and training opportunities in organic agriculture in the EU and three non-EU countries

Training opportunities	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
Short courses for farmers	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓
Organic farming as core subject in agricultural high schools	✓		✓	✓			(✓)						✓			✓		(✓)
Technical / vocational qualifications (1-2 years) in organic agriculture	✓	(✓) ¹	✓	✓	✓		(✓) ¹	✓	(✓) ¹		(✓) ¹		✓					✓
Technical / vocational qualifications (1-2 years) in organic horticulture							✓	✓		✓								✓
BSc or equivalent under graduate qualification with specialisation in organic farming			✓	✓ ²				✓									✓	(✓) ³
MSc or equivalent post graduate qualification in organic agriculture		✓	✓					(✓) ⁴					✓				✓ ²	
Optional modules at Colleges / Universities in agricultural degrees	✓		✓	✓		✓		✓	✓		✓		✓		✓	✓	✓	✓
Continuous education, courses for other professionals or general public	✓	✓ ⁵	✓	✓	✓ ⁵	✓ ⁵	✓	✓ ⁶								✓	✓	✓

Sources: own data and Spohn and Geier (1995).

✓ = available; (✓) = limited provision

¹ for unemployed only

² Starting in 1998

³ Course offers credits towards BSc scheme.

⁴ MSc in sustainable agriculture

⁵ Courses for the general public

⁶ Training courses for inspectors.

Table 8-3: Public expenditure for organic farming training and education in the EU and three non-EU countries (kECU)

Year	AT ¹	BE ²	DE	DK ³	ES ⁴	FI ⁵	FR	GB ⁶	GR	IE ⁷	IT	LU	NL	PT	SE	CH ⁹	CZ	NO ¹⁰
1993	0	62	nd	659	0	nd	nd	187	nd	31	nd	0	nd	0	16	156	nd	686
1994	0	73	nd	663	0	nd	nd	238	nd	0	nd	0	nd	0	24	167	nd	681
1995	30.3	70	nd	682	0	1 524	nd	286	nd	0	nd	0	nd	0	62 ⁸	181	nd	688
1996	9.3	87	nd	679	311	3 379	nd	346	nd	0	nd	0	nd	nd	nd ⁸	210	nd	659
1997	nd	84	nd	668	nd	5 476	nd	399	nd	0	nd	0	nd	nd	43	262	nd	711

Source: Own data

nd = no data available; 0 = no spending; figures are based on actual spending data unless otherwise indicated.

¹ Training under ÖPUL

² Funding for CRABE includes 45% co-funding from the EU Social Fund, No figures for Faculté des Sciences agronomiques de l'Etat de Gembloux or short courses for farmers are available.

³ Estimates based on the funding that the organic farming school receives for students and farmers that are attending their courses; no data for the share of organic training courses under EC Reg. 2078/92.

⁴ Training courses under EC Reg. 2078/92.

⁵ Training courses and advice under EC Reg. 2078/92.

⁶ Financial year from 6/4 to 5/4, estimates for specialist courses at colleges and universities.

⁷ No funding details for specialist horticultural college Ant-Ionad Glas available.

⁸ Data for 1995 include an 18month period (incl. 1996).

⁹ Estimates for support for short courses, do not include optional and compulsory modules at schools, college and university.

¹⁰ Annual budget of Sogn Jord- og Hagebruksskole.

In nearly all countries the provision of short courses for farmers has been supported by organic producer organisations. In Germany, three private foundations support various training opportunities. The anthroposophical movement supports private schools/colleges that teach bio-dynamic agriculture in several countries (DE, GB, IT, SE, NL, CH and NO). One religious group runs a private school for organic farming in Norway and one private organisation (Vida Sana) supports postgraduate training in Spain.

8.4 Evaluation

This evaluation is based on a small number of published and unpublished reviews of training in organic farming that were carried out prior to this project and on comments from partners and subcontractors. Most opportunities for training and education in organic farming have been listed by IFOAM (Spohn and Geier, 1995).

In organic farming, similar to other low input systems, inputs are replaced through management (Lockeretz, 1991). Training in organic farming is therefore very important, high managerial demands go with increased farm diversity and there is a need for the farmer to learn techniques for preventive management to maintain the health of crops and animals (Gerber, 1997).

Training in organic farming is provided either by specialist schools/colleges that offer special courses and qualifications in organic farming or is part of the mainstream agricultural training at all levels. Both strategies have their advantages: in specialist schools the staff will develop high knowledge and expertise and the different institutional set-up might make it easier to teach a different “vision” of agriculture (Vogtmann, 1997) as well as different subjects in the curriculum. Integration into mainstream agricultural education on the other hand emphasises the strong relation to good husbandry and agricultural tradition.

Where specialist qualifications or other training opportunities for organic agriculture exist, they frequently depend on the personal initiative of committed individuals or groups of individuals, who have developed the courses, often with the support of organic farmers and the producer organisations, and identified funding opportunities. Similarly, student pressure has led to the establishment of chairs in organic farming at several German universities (see also Section 9.2.4) (Gerber et al., 1996).

Training opportunities have frequently been characterised as insufficient. The lack of recognised qualifications in organic and bio-dynamic farming has been noted by Gerber (1997) for various German regions, even though technical courses exist in some German regions. In Italy, also limited training is currently available, but the Italian government has recently commissioned a research project to evaluate training in organic farming in all regions of Italy, to identify training needs of farmers and advisors and to suggest curricula that would meet those needs. Subcontractors in Spain, Greece and Ireland also commented on the lack of training opportunities in organic farming. On the other hand, a report

from the Netherlands came to the conclusion that the availability of optional modules on organic farming has not led to an increased student interest from the students in this area (IKC, 1995).

If organic farming is offered as a subject in all agricultural schools, good quality teaching can only be assured if the teachers have relevant experience and/or access to appropriate materials to deliver good teaching on the subject (Gerber, 1997). The schools need good backup to achieve this, from universities and research institutes as well as, for practical demonstrations and excursions, from organic producers and their associations.

The development of common curricula for technical education would help to improve teaching quality. The courses should follow a broad multi-disciplinary curriculum in a project-based learning approach and the curriculum should include production-oriented, technical subjects as well as economic, social and environmental ones (Knickel, 1996; Vogtmann, 1997).

In Switzerland, the Federal Office of Agriculture published a manual for the agricultural school for basic courses in 1996 (*Lernziele für den biologischen Landbau*) to initiate and co-ordinate modules in organic agriculture. Some co-ordination also exists in France, in the form of a network for all schools and colleges that teach specialist courses in organic farming (FORMABIO) with the aim to facilitate the exchange of experiences.

Interesting in the context of teaching quality, is the certification scheme for organic courses that is offered by one producer organisation in GB (Soil Association). For a set fee the inspector looks at the course content as well as the management of any experimental or demonstration plot or farm.

8.5 Summary and conclusions

The training opportunities in organic farming in the countries studied cover short courses for farmers (approximately 1 to 4 weeks), courses at high-schools, specialist technical and academic qualifications and optional modules at colleges and universities. In addition various other courses are offered not leading to any formal qualification.

National/regional training programmes in organic farming for producers exist in eight EU countries, in most cases (apart from Belgium) these form part of the national implementation of EC Reg. 2078/92.

Other training in organic farming is offered either through specialist schools/colleges or is included in the main agricultural education or curriculum.

Agricultural colleges have specialised in organic farming and offer a technical qualification in organic farming in seven countries and in organic horticulture in four countries. Organic farming has been included in the national curriculum for all agricultural high-schools in five countries. Special academic qualifications (undergraduate or

postgraduate) are offered in six countries, and in the majority of countries universities offer optional modules. Chairs in organic farming exist in six EU countries and two non EU countries.

Training in organic farming is important because of the increased managerial demand of organic systems and the need for farmers to learn new skills. Courses should reflect the underlying vision of agriculture and follow a broad multi-disciplinary curriculum. Frequently the training opportunities leading to formal qualifications in organic farming have been characterised as insufficient; students' interest in the subject varies.

In the absence of formal curricula, courses in organic farming will achieve a good learning outcome, if the teachers have personal experience in the field and access to good resources. Initiatives to develop curricula for organic farming courses at technical level exist only in Switzerland and France, but in no other country and not internationally. At academic level, one model experiment for curriculum development is taking place in Germany; co-operation between ten agricultural universities in Europe and a joint BSc in Ecological Agriculture are supported under the ERASMUS/SOCRATES framework.

The total expenditure in EU for specialist vocational and practical training (including short courses for farmers but excluding academic courses in most countries) for 1996 has been estimated to be in the range of 5 to 10 MECU.

9 Research and development

The section gives an overview of research and development policy for organic farming in the EU, the member states and three non-EU countries. This includes the regulatory framework, a review of evaluations of research needs and strategic planning of organic farming research, and the various types of institutions that are involved in research in the field of organic farming.

9.1 Regulatory framework

At European level research is supported through Framework programmes. **The second Framework (CAMAR, 1989-1993)** mentioned organic farming under the overall topic of extensification, diversification, including extensification of production, cost reduction and protection of the rural environment, development of alternative farming practices, particularly organic farming with the aim of conserving natural resources and the countryside.

The **third Framework (AIR, 1991-1994, OJ 91/C/264/11)** again mentioned organic farming under the research heading of conversion, diversification and extensification as non- or low-chemical (including “organic) production systems and integrated systems (Page 2 work-programme). Organic farming is also mentioned under consumer safety, health and safety aspects of uncooked and “organic food” (Page 13, work programme).

The **fourth Framework (FAIR, 1994-1997, Decision No 1110/94-EC)** specifically mentions organic farming in Area 4 of the detailed work programme under Heading 4.1 (Reform of CAP: optimisation of methods, systems and primary production chains). Organic farming is included in the first theme and comparisons of the productivity of organic (biological) and conventional production systems are specifically mentioned under Objective 4.1.1 (Optimisation of methods, systems and primary production chains). Under Objective 4.2.1 (Consumer expectations) and Objective 4.2.2 (Technological instruments and methods) organic farming is also mentioned. Other areas of the work programme (such as Objective 4.3, Diversification) could also accommodate projects that deal with work in organic farming.

The common positions for the **fifth research Framework** that were agreed at the Council meeting on the 12/2/1998, include sustainable agriculture as a main heading in the first thematic programme. The implications for research in organic farming cannot be assessed at this early stage.

9.2 Review of the current situation

9.2.1 European research co-operation in organic farming

Research projects that focus on aspects of organic farming and that were funded under the second, third and fourth Research Framework Programmes of the EU are listed in Table 9-1. Table 9-2 shows projects that have an organic element, such as some experiments on organic farms or organic management as one variant in a trial, but do not entirely focus on organic farming. Other projects where all work is carried out under the conditions of conventional agriculture have been excluded from this analysis, even though they might be of some relevance to organic farming.

A total of ten projects focusing entirely on organic farming and a further nine projects that have an organic element were identified through a search of the CORDIS database. The majority of organic projects were funded under the third Framework (AIR), whereas under the second (CAMAR) and fourth (FAIR) Framework only one organic project each succeeded in obtaining funding. As a comparison, a total of 189 projects were funded under the AIR programme. Given the comparatively high emphasis on organic farming in the working programme of FAIR it is worth noting that only one project researching organic farming systems was funded out of a total of 163 projects in the first three calls (selected out of 1 376 submissions). On the basis of the available material the reasons for this cannot be determined.

9.2.2 International co-operation and networks

The EU research funding included two concerted actions of major importance for the development of organic farming research: DOCEA, a network of centres for documentation of literature in ecological agriculture and ENOF (European Network of Organic Farming) for research co-ordination. The DOCEA concerted action received funding until 1997 and no further sponsorship to continue the activities has been secured yet; ENOF's funding continues until the end of 1998.

The regular bi-annual scientific conferences of IFOAM attract researchers in organic farming from all over the world. The conferences also act as a forum for debate of issues concerning standards and certification and a meeting point for traders and retailers.

The German speaking countries also hold a bi-annual scientific conference on organic farming research. The Nordic countries are increasingly co-ordinating their initiatives in research and academic training in organic farming through the NOVA (Nordic Forestry Veterinary and Agricultural University) and the Nordic Research Network for Ecological Agriculture that is funded by the Nordic Research Academy. One of the contributions of the Nordic countries is the publication of the newsletter Research Notes on Ecological Agriculture in the Nordic countries (*Forskningnytt*), published in Nordic languages.

9.2.3 National research programmes and co-ordination of organic farming research

In five EU (DE, DK, FI, GB, SE) and two non-EU (CH and NO) countries research on organic farming is currently part of a national programme, and in a further two countries (AT and FR) activities are co-ordinated at a national level. In Denmark and Finland, research activities are co-ordinated through one public research institution for organic agriculture. The Swiss and Norwegian governments have approved the research programmes of the respective private research institutes for organic farming. Great Britain and Sweden have dedicated research funding for organic farming. In Austria and Switzerland, a committee of all institutions that are involved in organic farming research co-ordinates the activities and gives recommendations for funding. In France, a private institute co-ordinates and disseminates results of applied research and in Spain organic farming is included in the national agricultural research programme. With a growing organic industry the situation is changing considerably in most countries with new initiatives being introduced whereas old programmes are phased out.

Table 9-1: European research projects in organic farming funded under CAMAR, AIR and FAIR.

Programme (Wave)	Area	CT N° Type ¹	Title	Countries	Period
FAIR (3)	4.1.3	1794 SC	Effects of the CAP Reform and possible further development on organic farming in the EU	DE, GB, DK, IT	1/3/97- 30/6/00
AIR (1)	4.1.1	0051 CA	Advanced ecological farming systems, based on best practice with organic farmers' pilot groups	BE, NL, IE	1/3/93-28/2/97
AIR (1)	4.1.1	0576 SC	Viable organic stockless systems	FR, DE, GB	1/1/93-31/12/94
AIR (1)	4.1.1	0776 SC	Organic livestock farming, nutritional, environmental and economic implications of conversion	IE, GB, DE, NL	1/1/93-31/12/95
AIR (2)	4.1.1	0852 SC	On-farm development and evaluation of organic farming systems (incl. nutrient supply and weed control): the role of livestock and agro-forestry	DE, GR, ES, GB, FR	1/10/93-31/3/97
AIR (3)	4.1.1	1940 CA	Elaboration of standards for site specific fertilisation systems in organic farming in Europe, based on long term field experiments	DE, DK, CH, SE, FI,	1/1/95-31/12/97
AIR (3)	4.1.1	2135	DOCEA (Development of a strategy for co-operation and optimal documentation of and supply of literature on ecological farming)	NL, GR, IT, ES, GB, DK, IT, FR, SE	1/1/95-31/12/96
AIR (3)	4.1.1	2143 CA	ENOF (The European network for scientific research coordination in organic farming)	ES,IT,BE,DE,DK,FR,GB, SE,FI,GR,IE	1/1/95-31/12/98
AIR (2)	4.1.3	1210 CA	The landscape and nature production capacity of organic agriculture	NL,FR,GB,CH,NO,DE,ES	1/1/94-31/12/97
CAMAR (1)	4.3.1	0116	Valorization of pumpkin varieties under the perspective of the organic market	BE,FR,IE,ES	1/2/92-1/8/94

Sources: CORDIS and European Commission.

¹SC = shared costs; CA = concerted action.

Table 9-2: European research projects related to organic farming, funded under CAMAR, AIR and FAIR.

Programme (Wave)	Area	CT N° Type ¹	Title	Countries	Period
FAIR (3)	4.1.1	2056 SC	Integrated and ecological field vegetable production, development of sustainable farming systems focusing on high quality production and minimum environmental impact	NL,IT,CH,PT	1/1/97- 31/3/00
FAIR (3)	4.1.2	1832 SC	Low-input animal production, forage legumes	GB,FI,SE,DE	1/2/97-31/3/00
FAIR (1)	4.1.2	0274 SC	Implementation and effectiveness of EU Agri-environmental schemes under Regulation 2078/92.	DE,PT,DK, AT,FR,ES,GR,SE,CH	
FAIR (1)	4.2.1	0844 SC	Development of an integrated knowledge-based decision support system for differentiated agricultural products	GR,GB,NL,SE	
AIR (1)	4.1.1	0755 CA	Working group on integrated and ecological arable systems for EC and associated countries	NL,PT,AT,NO,SE,CH,BE, DK,DE,FR,GB,GR,IE,IT	1/1/93-31/12/96
AIR (2)	4.1.2	1299 SC	Reducing or eliminating agro-chemical inputs in efficient production of high quality produce with conventional, sustainable and organic farming systems	GB,DK,ES,FR,	1/1/94-31/12/96
CAMAR (1)	4.1.1	0003	Study of the limits and potentials of systems and techniques of integrated and alternative agriculture	FR,NL,ES,FR	1/2/91-1/2/93
CAMAR (1)	4.4.1	0019	Biological control of fungal foliar diseases	DE,GB,GR,NL	1/2/91-1/2/94
CAMAR (1)	4.6.2	0119	The contribution of alternative farming systems to the future comparative advantage of farms in lagging regions of the community	GB,IEGR,FR	1/1/92-1/6/94

Sources: CORDIS and European Commission

¹SC = shared costs; CA = concerted action.

9.2.4 Institutions Involved and level of research activities

A range of institutions and organisations are conducting research in organic farming:

- Public research stations and institutes specialising in organic farming exist in Denmark and Finland. These are largely publicly funded and carry out a range of projects, as well as co-ordinating the research for organic agriculture in their country. The Centre for Sustainable Agriculture at Swedish Agricultural University has a similar role.
- Chairs of ecological agriculture at agricultural universities exist in 6 countries (AT, DE, DK, NL, SE, NO). All of these are also involved in teaching and research projects are funded from a variety of sources: public agencies, companies and private foundations as well as from core funding of the universities.
- There are seven private research institutes in the study countries (AT, DE, GB, NL, SE, CH, NO, see Table 9-4) that carry out research in organic farming for a variety of sponsors, public as well as private. The majority of the institutes have some project independent funding (foundation or public support). All institutes maintain close links with the organic industry, FiBL and EFRC also support an advisory service for organic farming.
- Public research institutes for agriculture and related areas are involved in organic farming projects in most countries (AT, BE, DE, DK, ES, FI, GB, GR, IE, NL, SE and in the non-EU countries CH, NO). These projects are mainly publicly funded.
- University departments of agriculture and various other subjects in almost all countries (AT, DE, DK, ES, FI, GB, GR, IE, IT, NL, SE, CH, NO, CZ) have been involved in individual projects through contract work as well as through research carried out by postgraduate students.
- Technical institutes that are associated with a particular group of farmers (e.g. winegrowers) carry out applied work such as variety trials e.g. in France and Switzerland. Some of this work is publicly funded.
- Groups of organic farmers have been involved in applied research and development work in various countries (e.g. BE, FR, GR, CH, NO).

Table 9-3: Countries with national research programme(s) and/ or national co-ordination of organic farming research

AT	The FBL (<i>Forschungsinitiative im biologischen Landbau</i>) is a forum where all institutions that are active in the field are represented to discuss priorities and provide recommendations. It was established in 1991 and undertook a major review of all activities in 1994/95 (Lindenthal et al., 1996).
DE	National research programme was introduced in 1998 to support research and development projects in agriculture and environmental protection: area dissemination of production methods for improvement of ecological agriculture (Announcement Nr. 02/98/51). Projects are required to follow EC Reg. 2092/91 or AGÖL standards, production methods to reduce environmental pollution, are profitable and transferable to other organic farms. The project has to be useful for the majority of organic farms in Germany, and must be accompanied by scientific research. Support covers 25 % of project costs (max 50 %) plus all costs of necessary scientific research.
DK	The Centre for Organic Farming Research was established in 1995. The main objective of the centre is to co-ordinate organic farming research. In particular a programme to initiate and maintain research on organic plant production and animal husbandry and on the connection between them, investigate the importance of organic farming for the environment and society, educate researchers, provide in-service training for advisors and teachers, and disseminate the results.
ES	The Ministry for Agriculture included organic farming in the listing of research priorities in 1996.
FI	The Research Programme for ecological agriculture for 1995-1997 and a preliminary research programme for 1998-2000. The main objective is to develop production methods, which are in line with definitions of organic agriculture, related to the specific conditions of Finland. This includes nine sectors: resource economy, nutrient economy, plant protection, cultivation techniques, horticulture, and animal husbandry, plant breeding and food processing. Main responsibility for the programme lies with the Partala Research Station for ecological agriculture, part of the Agricultural Research Centre of Finland.
FR	ITAB (Technical Institute for the Biological Agriculture), founded in 1982, co-ordinates applied research. ITAB's aim is to facilitate connections between the farmers and the research institutions and to disseminate research results at national level. ITAB co-ordinates applied work that is carried out by several technical institutes; part of ITAB is a documentation service on organic agriculture GEYSER.
GB	MAFF organic farming research programme for England and Wales was implemented in the late 1980s. The strategic objective is to help promote organic farming as a form of environmentally friendly production, and to provide a firm basis for government decisions nationally and within the EU. Specific objectives include the investigation of methods, costs and benefits of conversion; identifying sound methods of farming and processing, identifying and overcoming the main limiting factors for commercial organic production; investigation of the environmental impact of organic farming, and other issues relevant to the organic sector.
IE	Johnstown Castle Research from 1990-1995; currently on hold. The purpose of the project was to investigate the levels of production, which could be achieved on the organic farm, and the economic feasibility of this method of farming.
IT	In 1996, the Italian Group of Researchers in Organic Farming (GRAB-IT) was founded, which has currently 18 members. Its aims are to co-ordinate research efforts in the field of organic farming, and to organise workshops.

Table 9-3: Countries with national research programme(s) and/ or national co-ordination of organic farming research (cont.)

SE	Two programmes Ecological agriculture and horticulture production (<i>Ekologisk jordbruks- och trädgårdsproduktion</i> , Swedish Council for Forestry and Agricultural Research), and Environmental improvement of agriculture, organic farming (<i>Miljöförbättrande åtgärder i jordbruket, ekologiskt lantbruk, Sveriges Jordbruks Verket</i>) were implemented in 1997. The main objectives are to assist in achieving the goal set by the Government: 10% land area by the year 2000.
CH	The working programme of FiBL (covering 1994-1998) acts as a national programme as it has been approved by the government and is receiving substantial financial support. The main objectives of FiBL's working programme are to develop the organic farming system on different levels: soil management, plant nutrition and plant quality; plant production, weed and pest control, bio-diversity; animal husbandry; farm management and economy; landscape; advisory, training and inspection systems. The Federal Office of Agriculture has established a working group that co-ordinates projects in organic agriculture.
NO	NORSØK's programme for the development of ecological agriculture was formulated in 1997. The main objective is to further develop and disseminate knowledge concerning central problems within organic farming and to contribute to the increase in the production of organic products. Two new strategic research programmes (plant and animal health and plant nutrition) will start in 1998 in co-operation with other research institutes.

Source: Own data

Table 9-4: Private Research Institutes for organic farming in Europe

AT	Ludwig-Bolzman Institute, Vienna.
DE	Research Institute for Bio-Dynamic Agriculture, Darmstadt.
GB	EFRC - Elm Farm Research Centre, Hampstead Marshall.
NL	Luis Bolk Institute for Bio-Dynamic Agriculture, Driebergen.
SE	Bio-dynamic research Institute, Järna (currently only limited research activity).
CH	FiBL - Research Institute for Organic Agriculture, Frick (previously Oberwil).
NO	NORSØK-Norwegian Research Institute for Ecological Agriculture, Tingvoll.

Source: Own data

In addition there are number of private foundations and institutions that support or carry out research work in organic farming.

Table 9-5 gives an overview of the level of research activities in organic farming in the various countries. There are some countries where the overall level of research activities can be regarded as high (AT, DE, DK, FI, GB, SE, CH, NO) whereas in some countries virtually no research in the organic area is carried out (ES, LU, PT, CZ). The remaining countries have some individual research projects.

9.2.5 Public expenditure on organic farming research

Table 9-6 shows the EC contribution to research projects in organic farming that have been listed in Table 9-1 and Table 9-2. Projects directly related to organic farming under AIR received 3.8 MECU (0.5 MECU for related projects). The total funding for the AIR programme was 125 MECU (EC, 1997). The spending for organic farming projects under FAIR was 1.1 MECU (5.0 MECU for related projects), whereas the total ongoing spending for agriculture, forestry and rural development under the EU FAIR programme is 260 MECU (European Commission, 1998).

Public expenditure by individual countries on organic farming is summarised in Table 9-7 which is based on actual spending unless otherwise indicated. In Switzerland, the research budget was increased because of an increasing demand for organic products and growing awareness, which resulted in increasing political pressure. The budget in Great Britain is due to be increased as a result of increased commitment of the government to the organic sector.

In Denmark, the budget has been adjusted in several years because of increasing public awareness and the need for further research. No indication of any specific adjustments to the budget has been given from anywhere else. In several countries, private foundations have contributed towards research in organic farming (AT, DE, GB, SE, CH, CZ). The bio-dynamic movement supports their own private research institutions in DE, NL and SE. Other research is funded by buyers of organic products, notably supermarket chains (AT, GB, CH).

Total spending on organic farming research in 1996 in the EU and individual countries has been estimated to be in the range of 15 MECU. The estimate does not include funding for university chairs.

Table 9-5: Research activities in organic farming in EU and three non-EU countries

Type of project	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NL	PT	SE	CH	CZ	NO
University chairs ¹	1	0	5	4	0	0.5	0	0	0	0	0	0	1	0	3 ⁵	2	0	2
Contract research projects ²	✓✓	✓	✓✓	✓✓	✓	✓✓	✓	✓✓	✓	✓	✓	0	✓	0	✓✓	✓✓	✓	✓
Experimental farms ³	nd	0	>10	2	nd	2	nd	6	0	(1)	2	0	nd	0	6	1	0	2
On farm research ⁴	nd	nd	✓	✓	nd	✓	✓		✓		nd	0	✓	0	✓	✓	0	✓

Source Own data

✓ = existing ; nd = no data available.

¹ No of chairs of ordinary and associate professors

² ✓=1-20 projects, ✓✓= over 20 projects.

³ No of farms, () currently on hold.

⁴ ✓ = available

⁵ Established in 1997, not all positions have been filled.

Table 9-6: *EC contribution to European research projects in the area of organic farming under the AIR and FAIR programmes.*

Project Number	Type	EC-Contribution (MECU)
Organic projects		
FAIR-1794	SC	1.13
AIR-0051	SC	1.05
AIR-0776	SC	1.05
AIR-0852	SC	0.95
AIR-1940	CA	0.10
AIR-2135	CA	0.15
AIR-2143	CA	0.21
AIR-1210	CA	0.28
Total organic farming projects		4.92
Organic related projects		
FAIR-2056	SC	1.32
FAIR-1832	SC	1.26
FAIR-0274	SC	1.59
FAIR-0844	SC	0.87
AIR-0755	CA	0.37
AIR-1299	SC	0.10
Total related projects		5.52

Source: European Commission

Table 9-7: Public expenditure for organic farming research and development in the EU and three non-EU countries (kECU)

Year	AT ¹	BE ²	DE ³	DK	ES ⁴	FI ⁵	FR	GB ⁶	GR	IE	IT	LU	NL	PT	SE ⁷	CH ⁸	CZ	NO
1993	nd	0	nd	1 199	0	328	nd	1 332	0	19	nd	0	nd	0	1 754	1 220	0	878
1994	99	0	nd	2 520	0	533	nd	1 736	0	38	nd	0	nd	0	1 747	1 517	0	943
1995	203	0	nd	1 664	0	613	nd	1 356	0	31	nd	0	nd	0	1 179	2 031	0	929
1996	86	0	nd	7 459	62	600	nd	1 955	0	13	nd	0	nd	0	nd	2 411	0	939
1997	106	0	nd	6 160	60	595	nd	2 142	121	27	nd	0	nd	0	3 294	2 895	0	1 010

Source: Own data

nd =no data available; 0= no spending identified; figures are based on actual spending data unless otherwise indicated

¹ The estimates included only the expenditure by the Austrian Ministry of Agriculture and do not include projects that were financed by other public bodies

² Data for objective 5b projects are included in Section 5.

³ Some data for the expenditure of special projects of the *Länder* are shown in Lampkin et al. (1999).

⁴ Budget for the two projects funded under the Sectoral Programme (1996-1999) are 14.7 and 2.3 MECU respectively, no national budget.

⁵ Estimate is based on budget for the Partala research station and does not include other research institutes.

⁶ Financial year from 6/4 to 5/4.

⁷ Financial year changed to calendar year in 1995; year 1995/96 covers 18-month period.

⁸ Includes projects at FiBL as well as other research institutions.

9.3 Evaluation of research projects and research needs

The evaluation is based on published and unpublished reviews of organic farming research carried out prior to this project and observations by partners and subcontractors. Table 9–8 gives an overview of national inventories of organic farming projects or reviews of research activities and priorities in eight countries. In addition three international reviews were considered (Krell, 1997; Niggli and Lockeretz, 1996; SJFR, 1997).

Table 9-8: Inventories of research projects and reviews of research priorities in the EU and three non-EU countries

AT	Review of research priorities and recommendations for future development. (Lindenthal et al., 1996).
DE	A database on agricultural research projects in DAINET contains projects on organic, biological, ecological and alternative agriculture http://www.dainet.de/dain/foren/landwirtschaft/oekologische_landwirtschaft/index.htm ;
DK	Review of research activities in organic agriculture (Kristensen and Hald, 1994); Eco-guide contains a list of research stations and projects (Borgen, 1997)
FR	Review of state of the art of organic farming research in France as part of larger report (Assouline et al., 1996)
GB	Review of all research projects and comparison with research priorities (Sharples et al., 1996)
IT	A review in the field of sustainable agriculture and organic farming, published by CEDAS (Folli et al., 1998)
SE	Three inventories on ongoing organic farming projects (Höök, 1995; SJFR, 1991; SJFR, 1996). Action plan 2000 (Jordbruksverket, 1996)
CH	Working programme of all research planned between 1996 and 1999 (FiBL, 1996); unpublished internal report on ongoing research projects in organic farming (Fried et al., 1997)
NO	Evaluation of research activities for the Norwegian Research Council (NFR) (Henriksen et al., 1995)

Source: Own data.

Farmers have to a large extent developed organic farming, unlike other technical innovations in agriculture where science has been the driving force for new developments. However, some researchers have considerably influenced the thinking of the organic pioneers in the past (Niggli and Lockeretz, 1996).

More recently research in organic farming systems has been recognised as very important for the development of the organic industry in Ireland, France (Assouline et al., 1996) and Austria (Lindenthal et al., 1996). In countries with currently a low level of research activities (such as Greece and Ireland) the organic movement sees increasing investment in research as a priority so that the problem of a growing organic industry can be addressed.

Research priorities should be determined with the involvement of the organic industry as well as the research community and the allocation of funds should follow accordingly (Sharples et al., 1996; Lindenthal et al., 1996).

Animal husbandry, economics and horticulture (especially fruit production) have been somewhat neglected in research in the past, possibly indicating the degree of difficulty in these particular sectors of coping with problems under organic management (Wynen, 1997).

Examples of research priorities for future work from Austria and Great Britain (Lindenthal, 1996; UKROFS, 1995) include:

- Improved economic and resource efficiency;
- Strengthening of self regulatory mechanisms;
- Improving organic production in horticulture (including propagation systems);
- Perennial crops (such as wine and fruit);
- Animal husbandry and animal health (including external and internal parasite control);
- “Problem solving research” for weed control (especially of perennial weeds);
- Monitoring the implications of conversion.

The IFOAM EU group was asked in June 1998 to submit its views on the main priorities for research and development of organic food production. Apart from already mentioned areas above they included the following priorities:

- Alternatives to the use of copper-salts for the control of fungal diseases;
- Evaluation of inputs;
- Organic seed production and breeding without the use of non permitted inputs;
- Assessment of EU policies on the organic sector (such as EC Reg. 2092/91);
- New concepts of sustainable land use and landscape development with organic methods;
- Improved holistic food quality assessment and methods for the detection of GMOs (IFOAM-EU, 1998).

Broader research priorities that are relevant to the organic sector as a whole as well as to policy makers are economic monitoring and studies of market development and the socio-economic implications of more widespread conversion.

Research projects on organic farming broadly fall into four categories:

- Highly applied, short-term projects addressing the questions that organic farmers face today by studying directly the production systems as they are on commercial organic farms;
- Studies of the underlying principles of organic farms, to get a better understanding of how the system works and how it can be improved in the long term (Niggli and Lockeretz, 1996);
- Research to support policy making;
- Review and application of work that has been carried out in conventional agriculture and is of benefit to organic farming.

An increase in the number of research projects alone does not necessarily improve the situation for the organic farmers and the industry. Reviews of organic farming research in Great Britain, Sweden and Norway identified in each case approx. 30 projects, but a substantial number of projects did not produce any significant results and did not lead to scientific publications (Henriksen et al., 1995; Sharples et al., 1996; SJFR, 1991). In all three reports it was therefore concluded that there is a need for strategic planning of organic farming research. This would seem to apply to Germany as well, where a considerable number of research institutions carry out projects, but in the absence of any national co-ordination it is difficult to obtain information about the various projects and their results. Similar reasons led to the establishment of the Organic Farming Research Centre in Denmark that is now co-ordinating the organic research work under three programmes (strategic, user-oriented and system development for plant production).

There is also a need to review the methodology employed in the light of the topics and research priorities. Historically, research in organic farming has been carried out outside the traditional agricultural disciplines. The first researchers that showed interest in organic farming had good contact with the organic pioneers, but their peers exposed them to intense criticism and they usually continued their work in isolation from their scientific disciplines. Mainstream agricultural researchers have been critical of organic farming, convinced it would exhaust the soils and lead to severe pest and disease problems. As a result a large number of comparative trials were established, comparing organic farming with conventional agriculture, but those did little to solve the more practical questions of organic farmers (Niggli and Lockeretz, 1996).

There appears to be a contradiction between the desire for scientific comparisons and excellence on the one hand and the problem solving and applied research needs of the organic industry on the other. This was suggested as one explanation for the lack of involvement of the main agricultural research institute in France (Assouline et al., 1996).

Furthermore, it has been suggested that organic farming represents a paradigm shift in agriculture. This would imply a need to revise methodology as well as difficulties with the current institutional set up of research including research funding (Wynen, 1996), the establishment of specialist institutions for research exclusively in organic farming (see Table 9-4) would conform to this. On the other hand, an increasing number of researchers in several other countries are now working within mainstream agricultural institutions on projects that are relevant to

organic farming. The often quoted “holistic” approach to organic farming research also needs further clarification (Niggli, 1997). Recognising the need FAO decided after a meeting in June 1997 to support a working group on the topic of "Research Methodologies in Organic Farming", a first technical workshop will be held in September 1998 (Krell, 1997).

Several other institutional barriers for the advancement of organic farming research have been identified such as the lack of policies to support organic farming research; the reductionist approach that underlies the disciplinary structure of universities; lack of multi-disciplinary work; absence of networks for researchers in organic farming; lack of a united position of the organic sector and a lack of structure to foster good researchers in organic farming through supervision by experienced researchers in organic farming and peer review (MacRae, 1989; Wynen, 1997).

Looking to the future, Niggli and Lockeretz (1996) and Lindenthal et al. (1996) concluded that in publicly funded research a shift away from comparative studies and increased emphasis on improving existing organic systems would be desirable. However, comparative work alongside studies of the conversion process will remain important in the area of economic research, as a data source for systems simulations (Zanoli, 1997) and to generate information on the impact of organic systems for interested conventional producers.

Finally, several authors emphasised the need not only to expand and improve the research, but ensure effective documentation and dissemination of all research results among farmers and all those involved in the organic movement (Krell, 1997).

9.4 Summary and conclusions

Farmers have developed organic farming, even though some researchers have played an important role in the past. Today, research involvement is considered vital for the future development of the organic industry. There is a need for organic farming research to work under applied scenarios and to maintain links with farmers and others in the organic sector so that effective two way communication of research needs as well as results is ensured.

Organic farming has been included as a topic for further research in the second, third and fourth Framework Programmes of the EU. A total of ten projects (CAMAR 1; AIR 8; FAIR 1) were identified that received funding under the three programmes including two concerted actions that aim to improve documentation (DOCEA) and co-ordination (ENOF) of organic farming research in Europe.

In seven countries, research in organic farming is part of a national research programme, in a further two countries some national co-ordination of organic farming research takes place. In ten countries, the overall research activities in organic farming can be considered as significant and in most they are increasing. However, in some countries

there is only limited activity to support the developing organic industry through research and development.

Shortcomings in a number of countries lie in the quality of some research, lack of dissemination, a lack of strategic planning and co-ordination that leads to failure to meet the research needs of the organic farming industry.

Research work falls in the broad categories of applied short-term projects, long-term studies of farming systems, research to support policy making and application of the results of conventional work.

Lists of research priorities include current problems of organic producers, as well as more long-term evaluations of the organic system and underlying principles. Specific issues vary according to the conditions in each country. Commonly recurring themes are various aspects of animal production especially animal health, horticultural techniques including fruit production and weed control. Long-term priorities include the economic and environmental impact of agriculture in general, and organic farming in particular, improved understanding of the self-regulatory mechanisms for pest and disease control, the development of species-appropriate and welfare-oriented but also economic animal production systems and socio-economic implications of widespread conversion.

Private and public research institutes and university chairs specialising in organic farming mainly conduct research in organic farming. Increasingly other public institutions that carry out general agricultural research are getting involved in organic farming projects.

The funding sources for organic farming projects are public as well as private, the latter ranging from buyers of organic produce to private foundations supporting organic farming or environmental issues in general. Total spending on organic farming research (excluding university chairs) in 1996 in the EU and individual countries has been estimated to be in the range of 15 MECU.

Limited research funding has been identified as a major barrier for future work. The disciplinary structure of agricultural research institutions and funding bodies and their preference for comparative experiments present further obstacles in meeting the industry's research priorities and supporting further development of the organic sector through research.

10 An integrated policy framework for organic farming

10.1 Introduction

The main objective of this report was to describe in detail the policy and regulatory environment within which organic farming currently operates in the Europe Union and some of its neighbours. In previous sections, individual measures or groups of measures have been considered largely in isolation, focusing in turn on agri-environmental and mainstream agricultural support, marketing and regional development programmes, certification systems, and information support in the form of training, advice and research and development.

The structure of the report, and the classification of measures, is to a large extent a reflection of the EU regulatory framework within which organic farming operates. In practice, however, there is a high level of interaction and interdependence between the policy measures described and their utilisation by the organic sector. The need to integrate different elements of agricultural and rural development policy is well recognised, most recently in the Agenda 2000 proposals (EC, 1998a Agricultural Council, 1999; Berlin European Council, 1999).

The role of an integrated policy framework to support organic farming has also been acknowledged and implemented in some EU Member States. In this section, we present examples of integrated national policies and we present a preliminary assessment of the implications of the draft Agenda 2000 rural development regulation (EC, 1999) for the further development of these policies. We also seek to summarise the main issues that emerged from the previous analysis of particular policy measures and which need further consideration in the later phases of the research project.

10.2 Targets and action plans for the development of organic farming

The commitment of individual countries to organic farming varies widely. Some countries (SE, AT, and individual regions in DE and CH) are officially committed to, or close to achieving, a target of 10% of agricultural land managed organically by the year 2000. France and the other Nordic countries (DK, FI, NO), have set lower targets of 3 and 5% respectively (Table 10.1). Switzerland as a whole has a target of 90-95% of farms producing to integrated farming standards by 2002, with the remainder organic. Most other countries have no specific targets for the development of organic farming.

In order to achieve these targets, all the Nordic countries, the Netherlands, France and several *Bundesländer* in Germany (Rheinland-Pfalz, Hessen, Nordrhein-Westfalen, Sachsen, Brandenburg and Niedersachsen) have developed integrated policy programmes or action plans for the future development of the organic sector. All these action plans have a clear target for expansion of the producer base. They integrate a variety of policy measures to achieve their goals, such as payments for production, harmonisation of certification procedures, market support, as well as support for advisory services, training and research and development.

Table 10-1: Strategic national policy goals and action plans for organic farming

Targets and Action Plans	DK	FI	FR	NL	SE	CH	NO
Organic farming as % of total	5	5	3-5 ³	-	10 ⁵	5-10 ⁷	5
Number of farms (x 1 000)	-	-	25	-	9	-	4.5
Land area (x 1 000 ha)	200	120	1000	-	350	-	50
Target year	2000	1999	2005	-	2000	2002	2000
Action plans for the development of organic farming	✓ ¹	✓ ²	✓	✓ ⁴	✓ ⁶		✓ ⁸

¹ Plan of action developed in 1995, revised in 1997.

² Action plan from 1996 not yet implemented.

³ Organic target: 3% of land area, 5% of producers France (Riquois, 1997).

⁴ Action plan sets spending targets for 1997-2000.

⁵ Farm number target achieved in 1997; focus now on market share.

⁶ Action plan and target set in 1996.

⁷ Remainder (90-95%) integrated farming.

⁸ Action plan from 1995; revised plan due 1998.

Of these action plans, the most detailed, and the one that has been most successfully implemented, is that of **Denmark**. In March 1995, the Minister of Agriculture and Fisheries produced the "Action Plan for Promotion of Organic Food Products in Denmark" with 65 recommendations that can be divided into 5 main categories:

- make conversion to organic farming attractive, in order to achieve the specified targets;
- secure the demand for organic products;
- intensify research, development and education within organic food production;
- remove barriers for a sound organic development;
- secure the implementation of the action in Denmark.

The starting point for the Action Plan was that consumer demand for organic products should be fulfilled and that the organic market should develop on the basis of the market economy. Assessments have been carried out in 1995 and 1997 leading to some revisions in the measures implemented. As a consequence of the plan:

- substantial new investments have been made in research, training and extension activities;
- new marketing initiatives have been developed, including co-operation established between industrial and local authority caterers and farms in conversion. Training courses for retailers concerning organic food products have been introduced. In 1998, a new action plan focusing on exports of organic products is under consideration by the Minister of Agriculture.
- organic food products as well as organic fish and non-food products have been made central to an action plan for converting society to green consumption and behaviour;
- organic inspection and certification costs have been paid as a state aid in 1996 and 1997;
- agri-environment support has been increased in environmentally sensitive areas and modified to encourage more conversion of arable and pig farms;
- several studies on the consequences of large-scale conversion to organic farming. One study, initially looking at 7, 25 and 55% conversion of Danish agriculture was commissioned as part of the action plans on pesticides and water pollution, was later extended to cover full conversion. A study by Wynen (1998) investigates the impact of 80-100% of Danish agriculture converting to organic farming and is part of the general research effort in this area.

Some of these measures are described earlier in this report and in more detail in Lampkin et al. (1999).

In **Finland** a plan of action for the development of organic agriculture was introduced by the Ministry of Agriculture and Forestry in 1996. It covers advisory services, training (including training of advisors), research and marketing together with continued payments under EC Reg. 2078/92. In part, the action plan is a response to the problems that are expected in market development due to the substantial increase in the supply base.

The main measures include:

- the development of processing and marketing activities, increasing knowledge of organic products, and the production of promotional material on and enhancement of the Finnish organic control system for firms which export organic products;
- the continuation of support for organic production as a part of the agri-environment programme to achieve the goal of 120 000 ha in organic production by 1999;

- increased support for research and development projects, extension and advisory services, and education and training of advisors and farmers.

The goal of 120 000 ha organic (5% of farmland) by 1999 under the agri-environment programme will be achieved in 1998, but as yet the other elements of the plan have not been fully implemented.

In **France** the Ministry of Agriculture presented a plan of development (1998-2000) at the end of 1997 (Riquois, 1997). The main goal is for France to regain a leading position in the European league table for organic farming by emphasising France's natural advantages in terms of large markets and large areas with agriculture practices similar to organic farming, and by solving the major organisational, marketing and information infrastructure problems. The increased support for organic farming is justified on the basis of:

- the imbalance between supply and demand;
- complementarity with conventional agriculture and as a role model for sustainability;
- the time required to convert and establish marketing networks;
- the existence of the national AB logo providing a clear identity for organic products.

Key measures included in the action plan are:

- harmonisation and improvement of the instruments for regulation and control of the organic sector in France and Europe, in order to avoid competitive disadvantage;
- increasing the organically farmed land area by increasing conversion support, in order to improve the competitive position relative to other countries, and by the introduction of further measures to support organic farming;
- provision of support for marketing and processing networks, including linkages between conventional processors and organic farming, and promotion of organic products, in particular the AB label;
- establishing the economic and ecological advantages of organic farming and strengthening/ co-ordinating public support for research and training.

The aim of the programme is to have 25 000 organic farmers and an area of 1 Mha organic by 2005 compared with 120 000 ha and 4 000 farms in 1997. The internal market, estimated at 4 000 MFRF in 1996, could reach 15 000 MFRF by 2000 (3-5% of the total market). Under the plan, support for organic farming will increase from 15 to 60 MFRF in 1998 with a further 30 MFRF support for market development. Although funding has been committed to the direct payments and marketing elements of the support programme, it is not clear how the research and extension activities are to be supported. The Ministry expects the technical and research institutes to establish closer collaboration and come up with specific proposals.

The Action Plan for **Sweden** was developed by the agricultural administration in 1996 and is aimed at achieving conversion of 10% of the agricultural area by the year 2000 (Jordbruksverket, 1996). The plan includes an analysis of the historical development of the organic sector in Sweden as well as current problems in the sector, and gives recommendations on how the target can be achieved through production support, advisory services, demonstration farms, research, information and market development.

Norway's "Plan of action for further development of organic farming" (Landbruksdepartementet, 1995) from 1995 describes the current situation of organic agriculture in Norway and outlines strategies for further development. Organic farming is expected to play a role in connection with securing employment in the agricultural sector as well as having an influence on the development of rural areas. The key objectives of the plan are to:

- increase the percentage of organically produced foods sold under certified labels to 85% by 1998;
- satisfy consumer demands for organic produce;
- achieve as high a price for organic produce as consumers are willing to pay.

The main areas of activity are:

- production and development of products, including geographic concentration of production, encouraging more mixed farming by reallocating milk quotas, financial support for organic production, aids to investment and small-scale processing attached to farms, evaluation of the rules for production and processing, increased use of planning-implements and quality systems, and more use of relevant rural development programmes and networks;
- market development through strengthening product chains, exploiting environmentally friendly and residue free production in the marketing process, development of a sales advice programme, establishment of a system that brings together supply and demand and regulation of the international trade in agricultural products;
- support for education, research and extension by giving priority to organic farming in research and development, co-ordination of research, developmental and experimental work, strengthening international co-operation, increase the know-how and improving the attitudes to organic farming in the local agriculture offices, developing high quality education, and improving extension services (formation of advisory groups) and information to producers (free advice for conversion).

Significant new developments in advisory and training provision have taken place in 1998 as a result of the commitments in the plan.

The **Netherlands** Ministry of Agriculture published its plan of action for organic farming in 1996 (*Plan van Aanpak*). This included provisions to support marketing, training and research initiatives, as well as to extend

the level and scope of payments under EC Reg. 2078/92. The provisions include:

- projects promoting organic products with the aim of developing the market, particularly in conventional marketing channels;
- measures to improve knowledge and awareness of organic farming, organic products and recognition of organic products;
- support for innovative projects intended to stimulate quality in the whole chain from producer to consumer;
- further measures to spread and increase the use of organic products and related businesses.

The plan sets spending targets, but does not include any targets for the producer base and lacks other clear targets and a time-schedule for its implementation. Because of the broad nature of the issues addressed, it is difficult to assess progress in implementation of the plan.

10.3 Agenda 2000 and the proposed Rural Development Regulation

Agenda 2000 (Agriculture Council, 1999; Berlin European Council, 1999; EC, 1998a; EC, 1999) deals with the next policy planning period 2000-2006. A full evaluation of the likely implications of Agenda 2000 for organic farming is not appropriate in this report, as it focuses primarily on measures implemented in the period 1993-1999. A more detailed analysis will be the subject of later phases of this research programme. However, some of the proposals could have implications that deserve some mention at this stage.

The Agenda 2000 proposals have been drawn up against the background of the accession of new EU member states, particularly from Central and Eastern Europe (CEE), raising serious concerns about increased surpluses and costs of support. There is also a need to meet current and future WTO commitments, with the emphasis on removing production subsidies and facilitating global trade. In addition to these financial and political pressures, social and environmental issues continue to play a key role in the development of rural policy.

For commodities, there will be further intervention price reductions together with corresponding (although less than fully compensating) increases in direct payments. The intervention price for cereals is to be cut by 15% in two stages and a further reduction may be applied from 2002/03. The area payment rate for cereals will be increased, and will in future also apply to set-aside land. The base rate for compulsory set-aside has been set at 10% for the whole period 2000-2006. For pulses, a higher area premium will be payable. For oilseeds and linseed, area payment levels will be reduced in three stages to the same level as cereals by 2002/3.

Area payments for maize, including maize for silage, are to be retained. Potentially of more interest to organic producers is a new grass silage area payment option (based on cereals reference yield) which can be

applied by member states 'where maize is not a traditional crop'. There would be specific sub-base areas, but without an increase in the overall national base area for arable crops.

To the extent that the Agenda 2000 proposals for arable crops represent a continuation of the CAP Reform process begun in 1992, then, on the basis of the discussion in Section 3 of this report, the developments are likely to be favourable for organic farming. There remains a case for organic farmers to be exempted from compulsory set-aside, while remaining eligible for voluntary set-aside. The reduced rate of area payment for set-aside, however, may make it less attractive as a support mechanism for the fertility building phase of organic stockless rotations or during conversion.

Beef support prices are to be cut by a total of 20% in three stages, accompanied by revisions to the intervention and safety net arrangements. From 2002, beef special premium payments will increase with differing levels of payment for bulls and steers. Suckler cow premiums will also be increased. In addition, a new slaughter premium is to be introduced, which will apply to all types of cattle slaughtered including heifers, young cattle (< 7 months old) and dairy cows. The extensification premium for low stocking rates would be increased, but would in future be calculated on the basis of total numbers of cattle, rather than those actually claimed for as at present. In some member states, a modified version of the previous extensification scheme may be implemented. This involves lower levels of payments for producers with stocking rates above 1.4 LU but below 2.0 LU (1.8 LU from 2002) and could be particularly useful for organic producers who previously might have just qualified by not claiming for every eligible animal.

Part of the funding for direct payments will be allocated to 'national envelopes' for member-state governments to distribute according to local needs, either as an additional headage payment to supplement the suckler cow premium, as a supplement to the slaughter premium, or as an area payment. In some cases, resources in the national envelopes could be used to support particular production systems, for example organic beef production.

Reforms to the milk regime, including reductions in intervention prices and the introduction of a compensation payment per litre of milk quota held in 1999/2000, will not be introduced until 2005/06. The quota regime has been extended until 2006, with a mid term review to decide on the possibility of abolishing quotas in 2006. In the meantime, specific quota increases are to be applied in a number of member states. A beef-related headage payment for dairy cows and national envelope top-ups are also possible.

In addition to the regulations proposed for individual commodities, a horizontal regulation applying across all commodities is designed to establish minimum levels of environmental cross-compliance and to allow member states to vary payments on the basis of labour usage by farms. The environmental protection element is intended to ensure that:

- a) environmental damage such as over-grazing as a direct consequence of the support payments can be avoided (it is not envisaged that

positive environmental management practices will normally feature in the minimum requirements); and

- b) where environmental laws are broken, support payments can be reduced or withheld (currently this is not legally possible).

To the extent that organic farmers are less likely to contravene any environmental cross-compliance requirements and might benefit from any additional payments relating to higher labour use, this regulation is also potentially advantageous to organic producers.

Potentially the most important proposal is that to consolidate all existing agri-environment, rural development and structural policies into a single rural development regulation, to be implemented through single programming documents (Rural Development Plans) developed by member states. The revised draft regulation (EC, 1999) makes specific reference to the increasing demand for organic products and the resulting creation of a new market for agricultural products, stating that specific rural development support measures may contribute to the production and marketing of organically produced agricultural products.

The rural development regulation consists of nine chapters covering investment aids, young farmers, training, early retirement, less favoured areas, agri-environment schemes, processing and marketing of farm products, forestry, and the adaptation and development of rural areas. Most of these emphasise economic, environmental and animal welfare objectives that are fully compatible with organic farming.

In particular, the agri-environment measures (Articles 20 to 22) will provide support for agri-environmental undertakings 'which go beyond the application of usual good farming practice' and it is envisaged that this definition would normally include organic farming. The proposed maximum co-financing levels are 600 ECU/ha for annual crops, 900 ECU/ha for specialised perennial crops and 450 ECU/ha for other crops – significantly higher than the existing provisions in EC Reg. 2078/92. As now, member states will be able to exceed these amounts as state aids, provided that the sums paid can be justified in terms of income forgone, the additional costs resulting from the undertaking, and the need to provide an incentive.

Also of significance are the proposals concerning less-favoured areas (Articles 13 to 19) where the emphasis is on support for low-input (sustainable) farming systems with stronger links to environmental factors. The nature of 'sustainable' farming practices will need to be defined in each area, but it may be possible to give specific recognition to organic farming in this context. Compensatory allowances are to be set between 25 and 200 ECU/ha, depending on the specific circumstances of the region.

By integrating most of the measures discussed in this report into a single regulation, and by requiring member states to produce customised rural development plans, the proposals have significant parallels to the 'action plans' for the development of organic farming discussed in the previous section. The draft regulation provides a significant opportunity for the development of integrated action plans that combine agri-environmental

and less-favoured area support with investment aids, processing and marketing support, and training and advisory initiatives.

At the same time, the decentralisation of decision-making with respect to conditions and payment rates (in line with the subsidiarity principle) is likely to exacerbate the current situation with regard to variability in payment rates, conditions and other forms of support for organic farming (as discussed in section 2). This will, as now, have significant implications for trade between EC member states, with likely distortions to the level playing field which EC Reg. 2092/91 was designed to create.

10.4 Issues for future consideration and research

This report has focused on describing the current situation of organic farming within the European Union and some of its neighbours. Only a preliminary evaluation of the impacts of the legislative and regulatory framework has been carried out. The issues identified in this report will be investigated in more detail in the later stages of this project, which will focus on:

- A more detailed analysis of the impacts on the development of organic farming of the individual measures described, and an assessment of the contribution that the growth in organic farming has made to current agricultural and environmental policy objectives, with a particular emphasis on growth in the supply base, market development, and assessment of the financial, socio-economic and environmental impacts, including output and public expenditure implications.
- The development of a list of possible policy instruments suitable for influencing the development of organic farming, and the identification of institutional and other factors that have contributed to the very different rates of development of organic agriculture in the EU member states and selected non-member-states.
- An analysis of the potential impacts of future policy developments and expansion of the organic farming sector in Europe, on the basis of farm and regional level models, as well as scenario analyses concerning the period to 2010, leading to specific policy recommendations.

The authors hope that the comparative review of policies to support organic farming and their implementation presented in this report, and the detailed information on each country published in volume 2 of this series (Lampkin et al. 1999), will help to highlight the potential strengths and weaknesses of the various measures and their impact on the organic sector, and thus stimulate the debate on the direction in which future policies might be developed.

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