



**DIRECTORATE FOR FOOD, AGRICULTURE AND FISHERIES  
COMMITTEE FOR AGRICULTURE**

**Conference of Directors and Representatives of Agricultural Knowledge Systems (AKS)  
(Agricultural Research, Extension and Higher Education)**

**INTERACTION AND CO-OPERATION BETWEEN THE AKS AND OTHER  
INTEREST GROUPS IN PRESERVING THE ENVIRONMENT AND ACHIEVING  
AGRICULTURAL SUSTAINABILITY**

**A VIEW FROM THE WORLD WILDLIFE FUND**

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**A VIEW FROM THE WORLD WILDLIFE FUND**

(Note by the Secretariat)

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## Introduction

1. The main objective of this paper is critically to examine the UK Agricultural Knowledge System (AKS) with reference to the potential for improving environmental management on farms. A particular focus is on the interactions and cooperation between different elements within the AKS, including NGOs, agricultural producers and the agro-food industry as well as the more traditional elements in the AKS such as state extension services.

2. The paper is based on the premise that the environmental performance of agriculture is an outcome of many interacting factors. Four are of particular importance:

- the performance and characteristics of commodity and input markets;
- agricultural policy;
- technologies;
- the aspirations and requirements of farm families.

Farmers respond to the demands deriving from all these factors in their farm management decisions, and these in turn affect environmental performance and outcomes. In order to make decisions, farmers use information and knowledge. They interpret policy or market signals, they consider the adoption of new technologies, and they decide on personal and household opportunities. Consequently, knowledge provision is a fifth factor to add to the list, and it underpins each of the others.

3. Given the importance of the Common Agricultural Policy to public debate on agriculture, and its apparent impact on environmental management, it is not surprising that in recent years NGOs have focused a great deal of attention on the CAP in their campaigning. In addition, WWF is one of few UK environmental organisations to devote sustained attention to knowledge: its 1995 report *Networks of Knowledge* provided an account of the AKS and covered agri-environmental research advice, training and education across each of the four countries of the UK (*Winter 1995*). More recently, sections of the work have been updated through fresh research and this paper draws from that unpublished work.

## The UK AKS

4. The first point to make about the UK AKS is that it is far from uniform across the United Kingdom. This is not a result of the recent devolution of powers to the Scottish Parliament, the Welsh Assembly and the Northern Ireland Assembly, for substantial differences existed prior to constitutional reform. There are closed arrangements operating in Northern Ireland and, to a somewhat lesser extent, in Scotland. In a closed AKS, the system is organised primarily within a single government agriculture department operating at all levels of the agricultural knowledge system with very little input from other organisations. An open system, as in England and Wales, is more complex, involving a wide range of influences and organisations, not necessarily all tied into a single central government department. The key arrangements for England and for Northern Ireland, as examples of the two opposite ends of the UK spectrum, are shown diagrammatically in Figures 1 and 2. The remainder of the paper focuses on the English system as an example of an open or fragmented AKS, although we will draw some comparisons with the other countries of the UK where appropriate.

**Figure 1. The Agri-Environmental Knowledge Network in England**

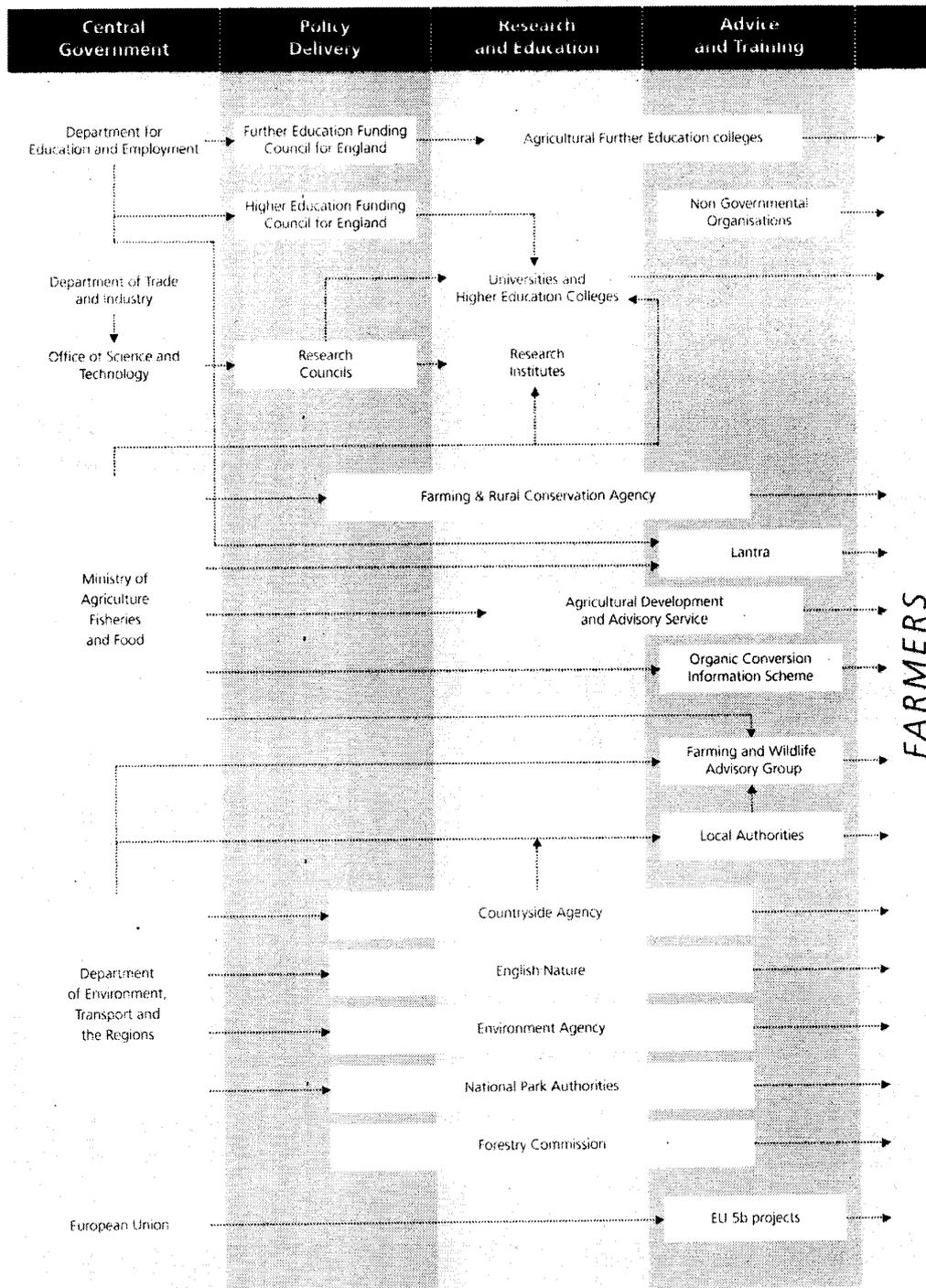
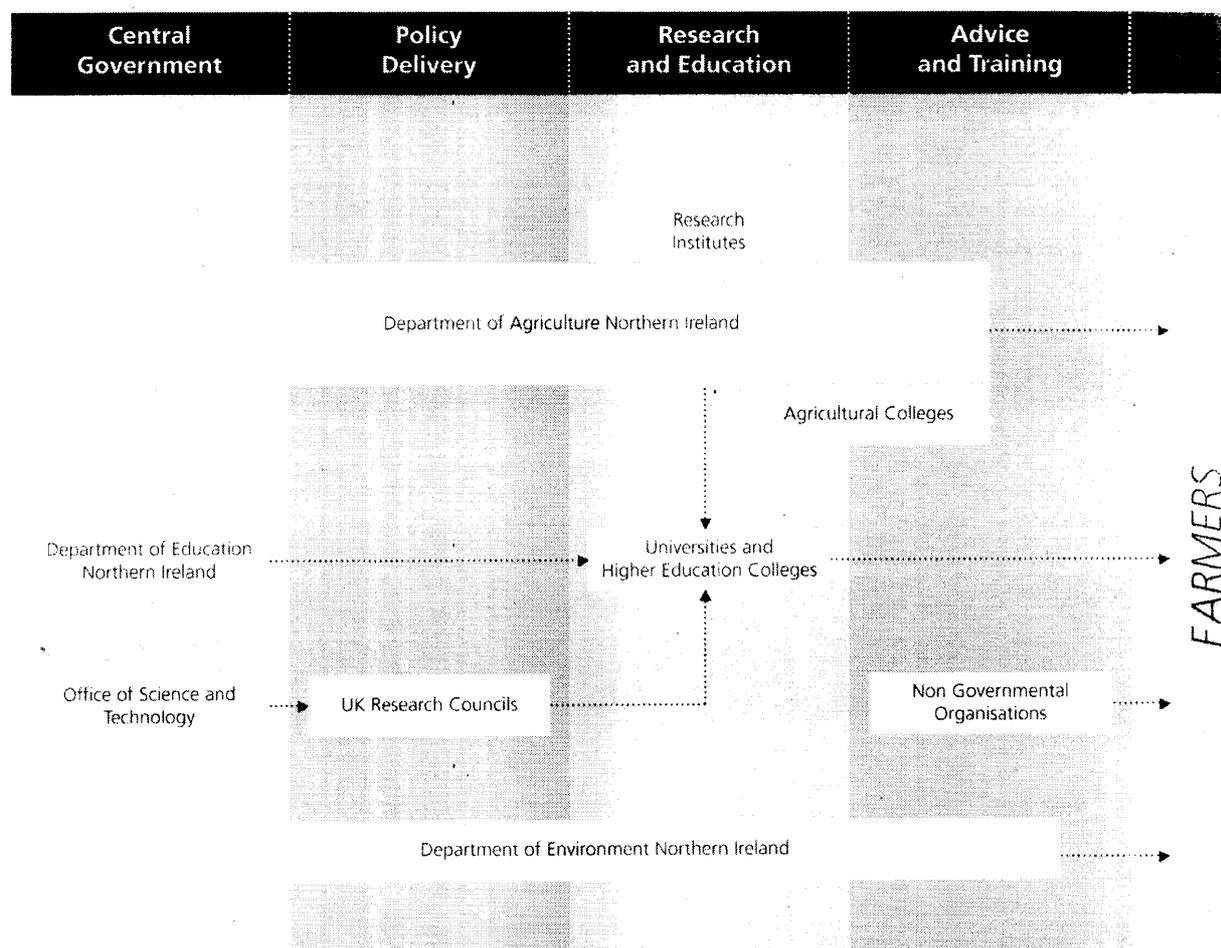


Figure 2.



### The English AKS: flawed fragmentation or dynamic pluralism?

5. An open AKS is by definition fragmented and this fragmentation cuts both vertically and horizontally.

#### *Vertical fragmentation*

6. Vertical fragmentation refers to a lack of clear mechanisms and resources to link agri-environmental science findings to varying forms of extension. This is not a new issue and lies at the heart of a much wider debate within UK policy about the science base, its responsiveness to industry needs, and the mechanisms that exist for technology transfer.

7. Vertically, the relationship between the different levels in the English AKS is weak and, arguably, weakening still further. This is routinely referred to as the technology transfer problem, with inadequate mechanisms for the delivery of research outputs (either as new knowledge or new technologies) to farmers through demonstration or via advisers, trainers and educationists. At one time the state advisory service, ADAS, provided a partial solution to the vertical fragmentation problem. In the 1970s and early

1980s, ADAS delivered a considerable amount of free agricultural advice to farmers, supplemented by technical bulletins on its research and development work available free of charge to all farmers. In 1987, charges for on-farm advice were introduced and the free bulletins were later withdrawn as a cost saving exercise. This heralded a series of changes in the status of ADAS, culminating in its full privatisation in 1997.

8. ADAS also conducted a very significant R&D programme based on experimental husbandry farms, which also had a demonstration function. The links between advisers and scientists were strong. Where relevant research was conducted at universities and research institutes (RIs), results were transmitted to ADAS. In part this was because MAFF was the only source of funds for ADAS, as well as contributing significantly to the costs of agricultural research in the universities and RIs. Nowadays, ADAS continues to conduct research as a private company - but the sources of funding are much more diverse and coordination is, therefore, far more difficult. In addition, the complementarity of the two sectors of research - ADAS conducting near-market R&D and the universities and RIs more basic research - has now broken down. There is no longer such a division of intellectual labour, and the two sectors compete for scarce resources from public and private sources.

9. The technology transfer problem arising from vertical fragmentation has been compounded by the changing nature of the technologies deriving from publicly funded research. R&D primarily oriented towards production techniques is likely to result in technologies that can be developed and marketed within the commercial agricultural supply sector. New machines, agro-chemical products or plant breeds marketed by commercial companies provided a ready solution to the technology transfer problem under productivist agricultural conditions. Even under these conditions, the state provided substantial underpinning to the R&D process through work conducted by ADAS - which also had close links with the private sector companies which ultimately market the new products. Of course, the potential for this dynamic still exists, as is clearly evident in the debate on GMOs.

10. However, there has been a substantial shift in publicly funded R&D away from production-oriented science and technology towards science designed to deal with concerns over environmental issues, animal welfare and food safety. Such issue-driven research does not always result in commercial applications. Moreover, even if the results of environmental research might have potential commercial benefits to farmers, this is now less likely to derive from the purchase of new products. For example, research designed to reduce inputs within Integrated Farming Systems research may well achieve environmental benefits at the same time as reducing farmers' expenditure on fertilisers or pest control products (*Morris and Winter 1999*). To reap such benefits, farmers require technical knowledge rather than new capital items. Knowledge-rich agriculture lies at the heart of moves towards sustainability.

### ***Horizontal fragmentation***

11. Horizontal fragmentation relates largely to the extension sector. There is differentiation in the operation of the AKS spatially by region and by sector. We find a plethora of organisations and initiatives devoted to some extent to providing agri-environmental information and advice to farmers. The situation in the 1970s and early 1980s saw ADAS, the front-line agricultural advisory service, joined by the Farming and Wildlife Advisory Group (FWAG) and local authorities (including National Parks) as providers of advice to farmers. This inevitably led to significant geographical discrepancies in the quantity and quality of advice available. Since then the situation has become considerably more geographically complex for two reasons: first, the emergence of geographically specific agri-environmental schemes, such as Environmentally Sensitive Areas (ESAs), introduced intensive systems of information provision in specific areas; second, areas designated as 5b areas under the European structural programme have brought about a burgeoning of schemes with an environmental advice element.

12. Table 1 shows the current complexity of agri-environmental advice provision in England in comparison with the rest of the UK. Appendix 1 briefly describes the nature and contribution of each of the major providers of advice and a sample of minor providers in England.

**Table 1: Non-commercial providers of agri-environmental advice to farmers in the UK**

	<b>Advice Organisations</b>	
	<b>Major providers of advice</b>	<b>Minor providers of advice</b>
England	ADAS	Countryside Agency
	Farming & Wildlife Advisory Group	English Nature
	FRCA	Environment Agency
	Objective 5b schemes	Game Conservancy Trust
	Organic Conversion Information Service	Forestry Authority
	Local Authorities	NFU/CLA
	National Parks	RSPB
	Wildlife Trusts	
Wales	ADAS	Environment Agency
	Coed Cymru	Farming & Wildlife Advisory Group
	Countryside Council for Wales	Forestry Authority
	FRCA	Game Conservancy Trust
	National Parks	Local Authorities
	Objective 5b initiatives	NFU/CLA/FUW
	Organic Conversion Information Service	Objective 5b initiatives
		RSPB
	Wildlife Trusts	
Scotland	Farming & Wildlife Advisory Group	Forestry Authority
	Objective 5b initiatives	Game Conservancy Trust
	Scottish Agricultural College	NFUS/SLF
		Objective 5b initiatives
		RSPB
		Scottish Natural Heritage
		SEPA
		Wildlife Trusts
Northern Ireland	Department of Agriculture (NI)	Department of Environment (NI)
		Farming & Wildlife Advisory Group
		RSPB
		Ulster Farmers Union
		Ulster Wildlife Trust

13. Table 2 attempts to summarise the total advisory inputs in each of the four countries and demonstrates the significant variation between them. It should be noted that the figures mask significant regional differences arising from the contrasting policies, resources and priorities of different local authorities, county FWAGs, and county Wildlife Trusts. Moreover, it has not proved possible to allocate figures to the contribution of 5b projects but many do have a significant environmental advice element.

**Table 2 Environmental Advice Provision for Farmers in the UK**

			FRCA		FWAG		Total: FWAG + FRCA/CCW/SAC/DANI		Total: FWAG + FRCA/CCW/SAC/DANI + Miscellaneous other sources		
	Total Number of Holdings	Total Agricultural area Hectares	Adviser Years	No. of holdings per adviser year	Adviser Years	No. of holdings per adviser year	Total no. of holdings per adviser year	Total no. of hectares per adviser year	Adjusted total no. of adviser years	Adjusted Total no. of holdings per adviser year	Adjusted Total no. of hectares per adviser year
England	144,777	9,223,317	36	4,022	55	2,632	1,591	101,355	159	913	58,191
Northern	32,118	1,068,862	32	996	0	0	996	33,143	37	862	28,694
Ireland											
Scotland	32,888	5,193,149	16	2,005	16	2,056	1,015	160,282	24	1,348	212,834
Wales	27,937	1,477,447	5.1	5,478	0	0	5,478	289,695	44	641	33,886
UK	237,720	16,962,775	89.75	2,649	71	3,348	1,479	105,523	264	951	67,851

14. The last three columns in the Table adjust the figures from core government providers to take into account the combined contributions of local authorities, Wildlife Trusts, OCIS, ADAS, Coed Cymru and the RSPB.

### **Case Studies: Some examples of dynamism within the open system**

15. In this section we provide some case studies of the kind of innovative projects that can emerge in an open and fragmented AKS. We have chosen three out of the many possibilities uncovered in our research. There are constructive lessons to be drawn from each, and these are taken up in our conclusions.

#### **The Culm Grassland Advisory Service**

16. The Culm Grassland project is located in north-west Devon in the south-west of England and the area is underlain by slate and shale and covered by poor-draining clay soils. The soil type - the Culm Measures - supports a variety of remnant agriculturally unimproved grassland habitats. Culm Grasslands comprise wet heath, mire, bog, neutral and acid grassland, scrub and secondary woodland. The grassland supports a wide and unique range of wildlife including the dormouse, otter, curlew, barn owl, snipe, reed bunting, marsh fritillary, brown hairstreak, small pearl-bordered fritillary, narrow-bordered bee hawk-moth, double line moth, mud snail, southern damselfly, keeled skimmer, raft spider and a number of rare flies, planthoppers and beetles, wavy-leaved St. John's wort, whorled caraway, cranberry, lesser butterfly orchid and some bryophytes.

17. The Devon Wildlife Trust carried out a survey in the late 1980s which showed that between 1984 and 1991 some 65 per cent of the Culm Grassland had been lost. As a result of these findings, Culm was targeted for the Countryside Stewardship Scheme, one of MAFF's agri-environment projects for the wider countryside outside Environmentally Sensitive Areas and chosen for English Nature's Wildlife Enhancement Scheme which operates on Sites of Special Scientific Interest (SSSIs).

18. With the specific objective of encouraging farmers to enter these schemes, particularly Countryside Stewardship, the Wildlife Trust established the Culm Grassland Advisory Service to:

- identify Culm Grassland through field survey, and to document Culm Grassland sites through the Devon Biodiversity Records Centre;
- locate and establish positive relationships with owners and managers of Culm Grassland sites;
- offer an advisory service to owners and managers of Culm Grassland, based on field visits, written advisory reports, development of site management plans and on-going telephone advice;
- assist owners and managers of Culm Grassland to enter their sites into appropriate Agri-Environment incentive schemes to help secure sites under positive management regimes;
- provide owners and managers of Culm Grassland sites, and other interested parties, with a newsletter information service known as *Culm Connections*;
- explore and develop new approaches to the integration of Culm Grassland conservation into rural development and good farming practice;
- seek to coordinate the activities of all parties active on the Culm Measures whose activities impinge on Culm Grassland management.

19. The service is funded out of the core budget of the Devon Wildlife Trust with some grant aid from English Nature, the Environment Agency and Devon County Council.

20. One adviser spends approximately 75 per cent of her time on Culm work. All initial advisory work is provided free to the farmer/landowner, although a professional fee is charged where an application for Countryside Stewardship is being submitted because this can be reclaimed by the farmer. Fees are waived if the application is unsuccessful, but in recent years 75-90 per cent of applications to the Countryside Stewardship Scheme on the Culm have been successful.

21. The initiative has met with considerable success and, alongside other initiatives, a high proportion of the most valuable Culm sites are now under some form of protection, at least in the short term. Moreover, relations between conservation interests and farmers in a rather remote and traditional family farming area have benefited greatly.

### **Farm Biodiversity Action Plans (BAP)**

22. The Farm BAP is a new initiative developed by FWAG in partnership with the major supermarket Sainsbury's. It aims to address environmental issues by encouraging suppliers to consider biodiversity and management of habitats across the whole farm. Following a successful pilot scheme, Farm BAPs were launched at a FWAG conference in October 1997 exclusively to Sainsbury's suppliers, and then in 1998 at the Royal Show for the public.

23. A FWAG adviser visits farmers and growers interested in commissioning a Farm BAP, surveys the farm and discusses with them the details of the plan. Together, the farmer or grower and the adviser identify four species or habitats appropriate to the farm which are considered to be of national or local importance. The farmer or grower receives a folder containing a profile of each species or habitat, a map of the farm highlighting the areas where each can or could be found, and an overview of management options.

24. The accompanying work guide provides a detailed and agreed timetable of short- and long-term commercial activities. These include managing and enhancing existing features, creating new features and making adjustments to everyday farming operations. The cost of having a Farm BAP prepared for a farmer or grower is £250. By the end of April 1999, 125 Farm BAPs covering 27,460 ha had been completed or were being delivered across England and Scotland. An evaluation of the pilot scheme revealed that it was well received by farmers and appeared likely to achieve conservation gains (*Morris and Winter 1998*). Significantly, it was felt that some farmers who might not otherwise have wished to be involved with FWAG and conservation advice were drawn into the scheme because of Sainsbury's involvement.

### ***Balancing Environment and Agriculture in the Marches (BEAM)***

25. The BEAM project is a 5b funded project in Herefordshire and Shropshire along the border with Wales - an area known as the Marches. The project seeks to demonstrate the potential of integrated farming systems (IFS) through practical demonstration of IFS within a whole farm commercial business. A series of open days, farm walks, demonstration events and, crucially, farmer discussion sessions have undoubtedly raised awareness of farmers to IFS in the region. There are signs of increasing adoption as a result, with BEAM having an additional effect of more than doubling the rate of participation in IFS in the Marches area (*Morris and Winter 1999, Morris et al 1999*) although this initial finding needs to be tested in further survey work. It has been difficult to promote IFS in a largely mixed livestock-arable area during a period of agricultural retrenchment, but the emphasis on practical demonstration within a locally well-known commercial farm gives this project some chance of having a lasting impact within its locality.

### *The problems of the open system*

26. Hitherto, some of our discussion of fragmentation has tended to imply that the level of pluralism uncovered in our examination of the English AKS is necessarily a problem. Some of the more obvious problems associated with this level of fragmentation are as follows:

- Confusion among farmers as to where to go for advice;
- Dangers of duplication and/or wasteful competition among providers of advice;
- Geographical unevenness of advice provision with some areas under-provided for;
- Dangers of contradictory messages going to farmers;
- Difficulties of monitoring and evaluating provision and of quality control;
- No overall coordination and consequently no real sense within government of the nature and extent of some of the above problems.

However, it is important to recognise that pluralism may also have its advantages and the case studies illustrate this. There may be opportunities for a cross-fertilisation of ideas across the network. It is undoubtedly the case that the open system in England allowed a more rapid transition from an agricultural productivist advisory regime to an environmental regime than elsewhere in the UK. Innovation is more likely within a diverse group of advisers and advisory bodies - especially, perhaps, where there is a combination of networking and creative competition between agencies. Above all, it could be said that the open system has encouraged environmental NGOs to become involved in the AKS, bringing with them their own specialist expertise but at the same time exposing them to the tough realities of practical farming and land management. The gap between environmental critique and the real world of farming, which FWAG successfully breached for many years, is increasingly being straddled by other NGOs, notably the more successful Wildlife Trusts.

### **Solutions and Recommendations**

27. The solutions to the problems of vertical and horizontal fragmentation are different. In policy terms, vertical fragmentation is almost certainly easier to tackle and requires mechanisms and resources rather than new institutional arrangements. It is vital that the funding of agri-environmental research contains adequate provision for technology transfer and technology interaction. This should not be confined to ill-defined dissemination (often merely publication of results in scientific journals) but to genuine interactive extension to farmers and advisers through demonstration, discussion groups, etc.

28. Horizontal fragmentation, given the extent of pluralism, cannot possibly be solved by the re-creation of a large monolithic extension service. Apart from the fact that governments are unlikely to provide funding, such a "solution" would stifle local initiative and innovation. Some geographical variation, as a result of the administration of agri-environmental schemes and the structural funds, is fixed for some time to come. Moreover, our case studies demonstrate some of the advantages of pluralism:

- Targeting, both geographically and in terms of particular habitats as in the Culm case, is undoubtedly a good means of ensuring that farmers know what is asked of them, and they feel involved and "special";
- One to one contact remains central to good extension, as demonstrated in both the Culm and Farm BAP cases;
- Much can be achieved by extending the network and incentives in innovative ways, as in the involvement of Sainsbury's in the Farm BAP example. Further work is being conducted on the role of Quality Assurance Schemes within the food chain as a new way of improving environmental performance in agriculture (*Morris 2000*).

29. Practical demonstration, as in the BEAM project, remains an important means of convincing farmers of the practicality of the outputs from scientific research so it would be absurd to seek uniformity. Coherence, coordination and monitoring of standards are required. *Networks of Knowledge* advocated Affiliated Regional Advisory and Training Services (ARATS) based on the following criticisms of the current system:

- a poor flow of information from research findings to dissemination through advice, training and education;
- a lack of effective skill transfer between agencies involved in the provision of agri-environmental knowledge;
- an inadequate career structure available for advisers;
- the lack of any regular and systematic attempt to monitor and evaluate advisory and training provision and through this to identify areas for improvement, gaps in provision and duplications.

30. These criticisms remain valid - arguably more so, given the growing role of local Wildlife Trust schemes and 5b projects. Crucial to the concept of ARATS is the fact that agencies would be brought together not only to coordinate advice and training provision but also to interact in ways that would improve the advice and training on offer. The inclusion of non-advice giving agencies in this process, preferably with formal links to an ARATS, is a vital element in facilitating an improved flow of findings from research agencies to advice agencies. ARATS would therefore not only provide a first-stop shop for agri-environmental advice and training but would also provide:

- a monitoring and evaluation service;
- establishment of quality control procedures and standards for environmental advice provision;
- the facilitation of continuing professional development and training for advisers/trainers;
- a means of liaison with the agricultural education and research communities in order to improve the dissemination and adoption of relevant research findings;
- the establishment of a network of demonstration farms.

31. The ARATS approach would seek to build on and enhance the strengths of pluralism, at the same time as recognising and confronting the inherent problems of fragmentation. Additionally, as a strong regional agenda in English government emerges, an ARATS approach would provide an opportunity to demonstrate the validity and strength of regional environmental governance.

**Appendix 1.**  
**Notes on some of the providers of agri-environmental advice in England**

***ADAS***

32. Although ADAS offers most of its advice commercially in its capacity as a private company, it also offers free conservation advice to farmers under contract to MAFF. This is done through free advisory visits, together with a programme of promotional activities (farm demonstrations, agricultural shows and talks to farmer groups). There are 45 ADAS consultants who deliver free MAFF-funded conservation advice across England. In 1998/99 they made 1,880 free visits in England - an increase on the 1,400 visits in 1993. This amounts to an equivalent of 17 person days of advice per annum. In addition, as part of its programme of free pollution advice, MAFF has commissioned ADAS to run annual campaigns in up to eight catchments in England, offering free consultancy advice in the preparation of 500 Farm Waste Management Plans conducted by 12 ADAS consultants (equivalent to five person years). The campaigns include visits and promotional meetings. Also with regard to pollution, ADAS is contracted to provide 500 visits in Nitrate Vulnerable Zones, which will be conducted by 16 consultants (equivalent to five person years).

***Farming and Rural Conservation Agency***

33. The FRCA was formed in 1997 to conduct some of the work carried out by the MAFF Land Use Planning Unit and ADAS prior to privatisation. The FRCA has 119 project officers and assistant project officers who deal with all government environmental schemes such as ESAs and the Countryside Stewardship Scheme. They provide farmers with comprehensive technical advice about the schemes and their practical implementation. It is estimated that approximately 30 per cent of a project officer's time is spent providing advice - that is to say, 36 person years for the provision of free conservation advice. In 1998/99 FRCA officers made 14,578 free conservation advisory visits to farmers throughout England in connection with ESAs and the Countryside Stewardship Scheme. Most were one-off, with very few repeat visits.

34. In addition, FRCA officers advise on the Habitat Scheme (now incorporated within CSS) and in 32 Nitrate Sensitive Areas they advise on ways of reducing nitrate leaching. In 1998/99 a total of 1,210 advisory visits were made to farmers in the Habitat Scheme and Nitrate Sensitive Areas.

***Farming and Wildlife Advisory Group***

35. FWAG is a specialist environmental agency part-funded by government with 30 years experience of conservation advisory work (Cox et al 1990, Winter 1996). In 1998/99, FWAG advisers made 4,723 visits in England compared with 3,500 in 1993/94, covering around 3 per cent of all registered agricultural land. There has been a general increase in the number of FWAG advisers since 1994: there are currently 54 in England compared with 35 in 1994. As a result, the geographical distribution of FWAG advice input has improved.

36. FWAG offers comprehensive advice across a wide range of issues as shown below.

**Table 3: Comparison of FWAG advice in England between 1992/93 and 1998/99**

<b>ADVICE GIVEN ON:</b>	<b>1992/93 Frequency</b>	<b>Percent of cases</b>	<b>1998/99 Frequency</b>	<b>Percent of cases</b>	<b>Actual Difference</b>	<b>% Difference</b>
Landscape issues	2,154	71	3,123	66	969	-5
Woodland management	787	26	1,173	25	386	-1
Woodland planting	764	25	803	17	39	-8
Shelterbelt planting	338	11	298	6	-40	-5
Amenity trees	1,124	37	1,134	24	10	-13
Hedge trees	1,201	39	2,668	56	1,467	17
Scrub management	646	2	1,303	28	657	26
Pond management	770	25	1,245	26	475	1
Pond restoration	523	17	1,076	23	553	6
Pond creation	621	20	862	18	241	-2
Watercourse	765	25	2,564	54	1,799	29
Wetland management	594	20	1,208	26	614	6
Improved grassland	555	18	1,400	30	845	12
Unimproved grassland	1,092	36	2,046	43	954	7
Wild flowers	438	14	2,054	43	1,616	29
Hedge management	1,488	49	3208	68	1,720	19
Hedge planting	757	25	1804	38	1,047	13
Field margin management	807	27	2561	54	1,754	27
Pesticide management	657	22	1997	42	1,340	20
Fertiliser management	870	29	2503	53	1,633	24
Pollution control	281	9	2094	44	1,813	35
Heather/moorland management	35	1	102	2	67	1
Shooting	207	7	513	11	306	4
Fishing	149	5	350	7	201	2
Species conservation	564	18	2694	57	2,130	39
Dry stone walls	143	5	364	8	221	3
Archaeological/historical	386	13	1425	30	1,039	17
<b>GRANTS ADVICE</b>						
Farm Woodland Premium Scheme	296	10	581	12	285	2
Stewardship	868	29	3052	65	2,184	36
Habitat Scheme	0	0	12	0	12	0
HIAP	0	0	0	0	0	0
Moorland Scheme	0	0	2	0	2	0
Countryside Premium Scheme	0	0	0	0	0	0
Environmentally Sensitive Areas	112	4	136	3	24	-1
Woodland Grant Scheme	827	27	985	21	158	-6
SNH	0	0	1	0	1	0
Local authority grants	1430	47	939	20	-491	-27
Other grants	311	10	467	10	156	0

*Objective 5b schemes*

37. Although the main rationale for Objective 5b regions is economic regeneration, many projects have proved to be an important source of environmental advice to farmers. The consequence has been to create a concentration of environmental advice within geographical areas based on economic rather than environmental criteria. This has had a substantial impact on the geographical distribution of environmental advice throughout the UK. Eleven areas in the UK were awarded Objective 5b status for the period 1994-99 largely on the basis of low GDP, a high proportion of employment dependency on agriculture, a low level of agricultural income and a low population density. The 11 areas include 5 per cent of the population and cover 27 per cent of the land area including much of the UK's most environmentally favoured and naturally diverse areas.

38. Information on Objective 5b projects was obtained from telephone interviews supplemented with written information where possible. Obtaining information about 5b projects proved to be a difficult task: there appears to be a serious lack of monitoring and evaluation of these schemes. There also appears to be an in-built lack of coordination between the government bodies administering the three structural funds. This paucity of information has created difficulties in providing an overall figure for the advisory input of 5b projects.

39. Some projects build on existing networks of advisers and experience in operating local authority grant aid schemes. However, it is not just a case of funding existing mechanisms via a new financial source. Advice provision is particularly significant in terms of additional "advice hours" offered. For example, in the Suffolk 5b area, FWAG offers a higher level of advisory service, giving one day rather than a half day of free advice. At a more general level, 5b projects seem to have played a potentially important role in forging new networks and perhaps cementing others. The Northern Uplands Moorland Regeneration Project provides an example of a project with a strong partnership. It is managed by ADAS with a steering group comprising the Moorland Association, English Nature, MAFF/FRCA, National Sheep Association, NFU, Game Conservancy and RSPB.

40. A range of mechanisms have been used by the 5b projects to provide environmental advice to farmers. These have included farm visits, technical guides, a newsletter, seminars, training and demonstration events. In this way, farmers are progressed along the environmental management adoption continuum. Participants particularly favour the integrated projects because they provide opportunities of some economic benefit from environmental management.

41. From our research it is evident that a wide range of Objective 5b projects are offering conservation advice to farmers. However, it is difficult to make any firm claims about the contribution of these projects to environmental education among farmers and landowners because of the difficulty in accessing monitored information. We have classified these 5b projects into different types and have produced case studies for each type to provide examples of environmental advice delivered to farmers by 5b projects:

- Single species projects, which focus on management practices that benefit a particular species (eg Barnacle Goose project and Black Grouse recovery projects in Scotland and the Welsh Grouse project in Wales);
- Farm diversification projects which, while predominantly business oriented, do offer some baseline environmental advice (eg Menter A Busnes - Rural Wales 5b area, Marches Farm Enterprise Programme);
- "Traditional" landscape conservation grant aid projects offering a fairly basic level of advice on tree planting etc (such as the Okehampton to Polson Bridge Recreation and Land Management Initiative and Southern Marches Environmental Action Plan);

- Demonstration projects associated with practical land management initiatives (some of which are more “passive” than others) such as Mynydd Y Ffynnon, Balancing Environment and Agriculture in the Marches (BEAM);
- Integrated projects covering environmental and economic issues where advice and training are core (eg Bodmin project, Bowland project, South Pembrokeshire Farm Support Scheme, Peak Park farm and environment project, Tamar 2000 Support)

***Organic Conversion Information Service***

42. The OCIS is coordinated for MAFF by ADAS but is dealt with separately here because of the involvement of other organisations. OCIS consists of a dedicated telephone helpline and free advisory visits to farmers. The helpline is operated by the Soil Association and the advisory visits are undertaken by a team of experts from the Elm Farm Research Centre. The helpline, operated by three members of staff, gives initial advice on basic issues of organic farming such as organic production standards, registration, and the support available for conversion. On request farmers are sent an information pack. In England the following number of enquiries were received by the helpline:

Jan-March 1998	718
April-June	880
July-Sept	1,017
Oct -Dec	1,025
Jan-March 1999	1,957

43. The advisory visits are made by 50 full- and part-time advisers from the Elm Farm Research Centre, who have specialist knowledge in organic livestock and arable farming. When a request for advice is received, an adviser is allocated depending on their area of expertise. The advisers will visit the farm for half a day and give detailed technical advice on organic conversion and marketing prospects, tailored to the needs of the individual holding. The farmer will be helped to draw up an outline conversion plan and is given enough information to make an informed decision on whether the farm is suitable for conversion to organic farming and whether it is a realistic option. A further full day of advice is also available. In 1998, advisers made 1,800 half day and 600 full day visits in England. This amounts to 7.5 person years of advisory time.

***Local Authorities***

44. Of 62 English county and district councils contacted in our survey, 36 responses were received. The survey revealed that most councils had staff offering environmental advice to farmers, although the majority had fewer than one full-time equivalent engaged in such a role. Seven councils claimed to have no staff giving environmental advice.

**Table 4: Type of advice provided by Local Authorities in England and Wales in 1993 and 1998**

Type of advice	1993		1998	
	Priority Advice	No. of times mentioned	No. of times mentioned	Priority Advice
Wildlife creation	4	28	42	52
Habitat creation	5	28	40	27
Ecological assessments	1	19	26	2
Woodland management	13	30	42	30
Pollution control	0	7	6	0
Landscape enhancement	14	30	35	38
Whole farm plans	1	18	13	6
Other *	4	14	16	0

\* Other category includes restoration of orchards, access, recreation, habitat management, archaeology, grant brokerage. Councils could mention more than one category

45. Many councils were unable to provide information on the number of advisory visits made by their staff. However, of those that could, the majority made no more than 100 visits per year. Because of the large number of councils, in aggregate terms this still represents a very considerable advisory input in the country as a whole, which we estimate to be 45 person years. As well as a reduction in grants, the nature of advice offered by English councils over the past five years has shown a shift in emphasis. Given the general reduction in grant aid, half the councils appear to be targeting their advice to specific areas such as local projects, AONBs or Heritage Coasts. This suggests that advice may be unevenly distributed within these counties. On the other hand, some counties are increasingly taking a wider view of the county through Biodiversity Action Plans. Most of these BAPs are in the preliminary stages and are gradually being implemented. Some councils feel it would be difficult to translate advice into action with the limited finances available. Others are adopting a coordinating role in the action and monitoring of the BAP.

### **National Parks**

46. National Parks are important providers of advice within their specific geographical areas. There is still considerable variation in the emphasis placed upon farm conservation advice between different National Parks.

**Table 5: Provision of farm conservation advice by National Parks in 1993 and 1998**

	Number of advisory staff 1993	Number of advisory staff 1998	Total advisory input 1993	Total advisory input 1998	Estimated no of farm visits p.a. 1993	Estimated no of farm visits p.a. 1998
Brecon Beacons	3	4	0.6	1.1	Not avail	300
Broads Authority	4	5	0.45	0.75	55	500
Dartmoor	6	5	2.8	0.83	Not avail	not avail
Exmoor	5		0.85		205	
Lake District	4	4	Not avail	0.30	Not avail	100
North York Moors	5	9	2.25	2.15	365	800
Northumberland	3	5	1.25	2.20	150	150
Peak	6	5	4.4	4.2	1,110	800
Snowdonia	6	6	5.5	5.8	800	280
Yorkshire Dales	6	7	2.35	3.25	400	500
Sussex Downs Conservation Board		6		0.20		100
NOTES						
These figures are approximations in many cases. All figures were provided by the Parks themselves.						
Some Park authorities referred to the work of Park wardens and rangers; others did not. For the purposes of this table, these have been excluded from the analysis.						
Some Parks provided data on contacts with farmers on archaeology, farm buildings and planning matters; all these have been excluded for the purposes of this analysis.						
Some Parks provided data on administrative back-up to farm advisory services; these have been excluded from the analysis.						

***Wildlife Trusts***

47. Of 20 Trusts responding to a postal survey, all employed staff offering direct conservation advice to farmers and private landowners, but none on a full-time basis. Most advice was provided county-wide, although there was often a particular focus on certain areas or particular species. Much advice relates to wildlife conservation, woodland management and habitat creation. The Trusts also provide advice on completing applications for agri-environment schemes such as the Countryside Stewardship scheme.

48. In the past, the Wildlife Trusts have offered reactive advice, but there is evidence that they are becoming increasingly proactive due to new funding sources and the Wildlife Sites initiative. In addition, many Trusts felt that their work with the farming community over the last five years had increased, in some cases substantially. One important factor is the Wildlife Sites initiative, which aims to identify the best areas for wildlife outside SSSIs. This is designed to bring to the attention of landowners the unique value and importance of their wildlife, allowing them to manage the sites sympathetically and with best knowledge. It also enables the Trusts to gain initial access to farms and to encourage farmers to adopt farm conservation practices to protect their wildlife sites.

49. We estimate 25 person years of conservation advice are offered through the Trusts.

***The Game Conservancy Trust***

50. This Trust advises farmers on how to improve the occurrence of natural game species, particularly pheasant and partridge. It conducts a considerable amount of research on the ecology of game birds and game management. The advisory effort is small - just seven advisers throughout Britain and Ireland compared with more than 70 research staff. Even so, advice is integral to the Trust's philosophy and because it tends to work on large estates, its impact may be greater than is implied by the number of its advisers.

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