

**REVIEW OF FARM MANAGEMENT
IN EXTENSION PROGRAMMES
IN CENTRAL AND EASTERN
EUROPEAN COUNTRIES**



Food
and
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REVIEW OF FARM MANAGEMENT IN EXTENSION PROGRAMMES IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

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This review is presented as a Farm Management and Production Economics Service working document hoping that it will help to identify constraints and stimulate development of recommendations for improved provision of extension advice related to farm management and farm business planning in Central and Eastern Europe. Any suggestions may be addressed to:

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1. EXECUTIVE SUMMARY

A review of the work done in farm management in Extension programmes in Central and Eastern Europe (CEE) is timely. A decade of endeavour and dedicated work by farmers, agriculturists, administrative staff and policy makers, assisted by the international community, has created a base from which to advance the growth of farms as organised businesses within re-structured agriculture. However, farming, the agriculture industries, the rural economies and rural societies continue in a state of rapid change throughout Europe, and the appropriate development of farm management skills by CEE farmers is essential for their future profitability and, probably, their viability. The aim of the review is to (i) identify constraints and (ii) propose recommendations for the improved provision of extension advice related to farm management and farm business planning.

Information is an essential resource for technically efficient and profitable farming at all levels and forms of production: acquiring and using the best available information is an integral part of managing a farm. Good, responsible, informed decisions are needed about what to produce, on which part of a farm, by what methods, when and in what quantity in order to achieve incomes at the desired and possible levels. However, production is not completed until products are at the point of purchase and are yielding consumer satisfaction. Farmers and their information needs are thus inevitably linked into finding solutions to marketing problems, as well as to production. Further complexity to farm management is added by the fact that, in modern Europe, the future of agriculture is inextricably connected to the diversification and renewal of the whole rural sector: agriculture can only be seen within a context of rural development.

Investment in human capital in agriculture has been established throughout Europe in the forms of (I) formal agricultural education, and (ii) a service of information and advice to farmers based on the outputs from agricultural research and technological development. The latter constitutes the extension process. It is organised into support service, originally with strong help from government in publicly funded Extension Services and now (increasingly) supplied by fee-charging consultants with close links (of various kinds) to governments.

Farm business management involves having goals for the farm and setting objectives to achieve them. Then, plans are needed to pursue the objectives, and decisions taken to convert plans into action. The implementation of the plan needs control in order to keep to the objectives. These processes are applied to the production, buying, selling, financing and staffing of a farm. Management concerns the future in terms of trading, for which budgets are required, and capital considerations, which need investment appraisal. Information is needed on past and present trading on the farm in terms of records and accounts, and balance sheets.

Farm business management is a well developed area of work within the field of Agricultural Economics. Extension work on farm management involves examining production and costs within a particular system.

After a period of re-organising Extension Services in CEE during 1991–1997, there now exist multiple-source information systems consisting of government Extension, commercial company representatives, private consultants and research and educational institution advisory services. The organizations exist at national, regional, district and local levels. There are registration and certification procedures to assure basic levels of professional competency for advisory staff, and in-service training facilities are developing. Family farms are a major focus of farm management work, but access to advisers is uneven and the relative lack of good farm management advisers means that in practice some forms of rationing of services exist, such as a concentration on more progressive farmers and those with more land and capital resources.

Overall, the present situation of the development of Extension Services and of farm management programmes makes it possible and worthwhile to intensify the efforts already made to achieve a higher level of business management, integrated with marketing skills, among large numbers of farmers in

CEE. This requires developing the understanding of farmers of the importance of good farm records and accounts, the abilities of advisers to give general advice on the use of farm data to organise and manage production and marketing, and increasing the support given by farm management specialists.

There are some major constraints. There is a serious lack of reliable economic data on farm production. Local Extensionists have a wide scope of duties, of which farm business management work is only one task. It is difficult to achieve uniform geographical and professional coverage for all farmers. The strong emphasis on using personal and individual methods for farm management advice limits the impact of scarce Extension resources on the farming community. The practice of Extension work and the training given to advisers tends to be oriented to technical subject matter of immediate use rather than to rural business management and the economics of the use of technology in production systems. Where farm management has become an important component of Extension programmes, it tends to be limited to acquiring techniques of analysing profitability in terms of cost and income: management is also about strategies for future viability of farms, optimising the use of all farm resources, and encouraging the formation of producer groups to exploit special marketing opportunities. Farm management covers a broad scope of activities, emphasises the task of combining resources and linking production with markets, and includes a concern for people and the environment: it is the whole farm and its place in the rural economy which has to be managed.

What is needed to improve the present situation is the creation of a strong support system for what is currently being done and achieved, to give a greater focus on farm business management within Extension work. The support system in individual countries will benefit from shared experience throughout CEE and continued interaction with what is done in Western European countries.

The entry points for creating the proposed new support system are, in order of priority, first, to create and/or strengthen liaison linkages between University Departments of Agricultural Economics and Farm Management Specialists in Extension Services and use these linkages for farm economy data collection, analysis and preparation for use, for training generalist Extension staff, and to create two management information systems (i) for fully commercial farmers and (ii) for small-scale, part-time farmers for whom a socio-economic bias in management is necessary. Second, to develop farmer groups, clubs, associations or societies (as appropriate) as a forum for discussing new information and ideas about farm management, and informal farmer groups as learning units for farm management advice given by Extension staff and consultants. Third, to collect national informative and training materials already produced and subject these to review, selection of best practices, adaptation and transfer to wider use. The materials cover awareness creation, recording and accountancy forms, self-learning materials for farmers and consultants, market information sheets, advanced training materials and booklets on issues for strategic management in agriculture. The fourth priority is for specialist conferences for senior Farm Management advisers to give stimulus and guidance to further developments within countries. Finally, support is needed to create teams of Farm Management specialists at regional levels within countries to identify problems, the needs for Extension work to deal with these and appropriate methods for working with farmers whose needs have been categorised.

These proposed actions constitute interactive recommendations to improve the situation, and have been designed as a support system for the work already in progress. They propose a cohesive and sustainable strategy to continue the transformation of the management of CEE farms from production to productivity in focus, and from custom to objectivity in approach. It concentrates attention and effort on delivering specific farm management information and advice to farmers, and to strengthening the opportunities and ability of farmers (especially those with small to medium size family farms) to receive, act on, and benefit from advice on the better organisation and management of their farms.

2. INTRODUCTION

Farming, the agricultural industry, the rural economy and rural society have been in a state of rapid change throughout Europe during the past decade. However, in contrast to the relatively progressive and evolutionary changes and adjustments (albeit not without crises) experienced in Western Europe, the corresponding changes in agriculture and its support services in Central and Eastern Europe (CEE) have been sudden and radical. To some extent, those involved in many CEE countries have had to confront obscurity and uncertainty in dealing with major structural and organizational changes. A decade of endeavour and dedicated work by national farmers, agriculturists, administrative staff and policy makers, assisted by the international community and especially the EU, has now yielded experience of the structural change to market oriented farming, and institution building in agricultural support services. The former concerns farm management, and the latter Extension programmes. This experience can be usefully reviewed to produce guidance for the future. The focus is on the development of farm management skills by farmers, achieved through a service of information and advice given by Extension Services.

The aims of the review are to (i) identify constraints and (ii) propose recommendations for the improved provision of extension advice related to farm management and farm business planning. The review is based on available documents relating to recent experience of farm management extension work in a number of specific countries. It also uses the relevant generalisations and conclusions reported from a number of conferences and seminars which have described the development of Extension Services for farming in Central and Eastern Europe since 1989¹. The review identifies similarities and adaptable ideas from the experience gained in developing business attitudes and management practices among farmers in Western Europe, and relates these to the present situation in CEE. The approach is initially broad and subsequently narrower and synthetic. It brings together what appears to be important for helpful action and intervention, to build on what has been achieved.

1 For example. The role of Extension Education in a global world. (1999) Proceedings of the 14th European Seminar on Extension Education. Ed.Konia J. and Drygas R. University of Cracow. Poland.

3. BACKGROUND AND INSTITUTIONAL SETTING

Both farm management and extension programmes are complex topics. They have been developed for over a century in Europe and elsewhere. Despite this history, there remain differences in the terminology and concepts used to discuss them. This is because the contexts of farming and the support services in which management is practised, and extension programmes conducted, are defined by cultures. Statements of the meanings to be given to the key terms used in the review are essential. The starting point is therefore to comment on farms, extension services and farm management; these comments give a framework to the review.

FARMS

FARMS AS CENTRES OF PRODUCTION

The outputs of the re-structured agricultural industries in CEE depend on how, and how well, large numbers of producers organise the three resources of land, labour and capital on farms, to produce food, fibre and raw materials for other industries. For our purposes three observations on this general statement are important.

First, although the amount of research-based information about agriculture has been greatly expanded in the past 150 years, together with fast and effective methods for information storage, retrieval, delivery and use, agricultural information is not always appropriate for particular needs unless it is adapted and packaged. This is a specialised task. Arguably, information can now be regarded as a fourth factor of production, both independently and in interaction with the other resources. For example, land quality (fertility) may be improved by knowledge brought to bear on its use, and it may also deteriorate: capital is highly dependent on informed ability to allocate and alter the total resource mix available for production. In general, information may appreciate for a period of time as it gains incremental value from use and experience, before it begins to depreciate and approach obsolescence². At farm level, information needs to be managed, and is an integral part of farm management.

Second, value can be (and often is) added to primary production by processing carried out on farms: milk, meat, cereals and grapes are common examples. In turn, processed products may be sold directly to consumers through farm shops, or at locally organised farmers' markets. This vertical integration of production at farm level is an important characteristic of European agriculture, and has implications for information needs, extension service programmes and farm management.

Third, the persistent family basis of very many small farms, and the traditional settlement pattern of villages with a shared economic interest in farming, together with the culture (music, literature, language, recreation) which has developed over centuries within rural society, have given to farmers a way of life that has been strongly valued and preserved, often over many generations. Despite the disturbances of state control and re-organization of agriculture in the mid 20th century in CEE, tradition is still a notable feature of modern agriculture throughout Europe, and it impacts on intended change processes in some areas. Major changes may be resisted, though there is usually more openness to small scale change; family farms are usually mixed systems.

2 Rolls M J, G E Jones and C Garforth. The dimensions of extension. Investing in rural extension; strategies and goals. Elsevier. 1986.

FARMS AS BUSINESSES

Farms produce a range of indispensable products, which are needed internationally in increasing supplies by an increasing and increasingly higher income population. This has tended to draw attention to the value of better technical efficiency and higher yields in farming: an effective demand for food could often be assumed in the past. However, the situation in which farms now operate in Europe is heavily influenced by world trade regulations and consumer preferences and wishes; the public's ability to generate pressures to which farmers must respond is now evident. Hence, farms have to become increasingly business units to produce goods and services for articulated consumer needs and wants. Ideally, these should be known (as in all manufacturing industry) in advance of production. Economic (rather than solely technical) efficiency has become a matter of overarching importance if a farm business is to continue. Farmers need good, informed decisions about what to produce, on which part of the farm, by what methods, when and in what quantity, if profits and income are to be maximised or achieved at the desired level.

The concept of farms as businesses extends further. Production is not completed until products are at the point of purchase and are yielding satisfaction. Farmers are thus inevitably linked into finding solutions to marketing problems as well as making production decisions: their products must have utility for the consumer. Marketing can now be seen as an appropriate starting point for management. In the context of this review, the change from planned to market economy in CEE is fundamental. It has atomised production and demand, and subjected both to strong competition locally, nationally and internationally. The arrangements needed to assemble and distribute products may be increasingly seen as farmer responsibilities, that involve them in going beyond their role in buying inputs and selling outputs to merchants. Alternatively, marketing may still be perceived by some farmers as needing separate professional, commercial expertise to organise and manage primary and secondary markets and commodity organizations. In recent years, and in some countries, supermarkets have also become influential in agriculture both directly through contractual supply arrangements with farmers and indirectly through acting as large-scale buyers of internationally traded food products. Market research, advertising, product labelling and merchandising have now emerged, among other specialised marketing skills, as matters of concern to farmers and Extension Services. They are key aspects of managing a commercial farm.

FARMS AS A FOCUS OF PUBLIC PERCEPTION AND PRESSURE, AND RURAL DEVELOPMENT

Information about the perceptions and attitudes of consumers towards the environment (wildlife and biodiversity), health and safety (toxic residues and contaminants in food), and animal welfare (intensive production practices) is often needed in decision-making by farmers, especially in EU countries. Farm production is now perceived and appraised by consumers with increasing levels of knowledge, strongly held beliefs, and a good understanding of how to organise and lobby to achieve their demands. These social and political aspects of agriculture have increased in importance in the management of farms, and are likely to remain so. The part played by farming in the total rural economy is likely to decrease in future as pressures increase for access to more leisure, tourism and recreational use of land for urban populations, and for alternative forms of rural employment to reduce the congestion costs of urban-based production. The diversification of rural economies by innovative development presents both threat and opportunity to the management of farms, and has implications for the development of infrastructures and services.

EXTENSION

EXTENSION AS A LINK WITH RESEARCH AND TECHNOLOGICAL INNOVATION

Attention now turns to the basic concepts of Extension. Historically, the application of science to agriculture, and thus the formalisation of agricultural research, was developed in Europe often ahead of the institutionalisation of agricultural extension and education. Initially, progress in farming was achieved by

improving control over the biological processes involved, through the application and technological exploitation of plant and animal sciences, and this continues. Public investment in agricultural research was justified mainly in terms of anticipated improvements in yields on farms leading to lower costs of food to the public, made possible by farmers adopting the technologies derived from research. Historically, innovative farm practices have proved to be a valuable response to food crises such as the famine in Ireland in the mid 1800s, to deal with which a small number of trained agriculturists was recruited as itinerant instructors. This was the first example of a publicly funded service of Agricultural Extension. Agricultural education for farmers also developed in the 19th century in vocational Agricultural Secondary Schools in CEE, and in Agricultural Colleges in other parts of Europe. There thus began an investment in human capital in farming, and the employment of agriculturists to take information and encouragement to innovate to farmers. During the second half of the nineteenth century, and for much of the twentieth, public sector support to agriculture in the forms of agricultural research and the organised dissemination of its results were increasingly notable. National Extension or Advisory Services were developed. The former promoted programmes of education to *change* farming; the latter offered expert information or advice on the *options* available for *choice* in farmer-controlled decisions. The influence of supplies of new information and innovative technologies is reinforced, for some farmers, by the financial benefits usually obtained by those who are first to develop new products, or who gain competitive advantage with greater efficiency from new production methods.

EXTENSION AS A LINK WITH POLICY AND GOVERNMENT SUPPORT TO AGRICULTURE

Government intervention in the agriculture industry in Europe tended until recently to increase and become increasingly complex. Measures were aimed at agricultural support, protection and guidance in the context of overall national policy (for example to encourage food exports, or food self-sufficiency, or farm amalgamations), and later within a common policy for EU countries (for example, production quotas and farm income support). Intervention caused government Extension Services to become a means of policy implementation, or at least to increase farmer awareness of policy decisions taken on behalf of agriculture. It involved both obligatory and voluntary compliance by farmers and was a difficult role for Extension.³ There was formed, however, a valuable channel for information flow from farms to Ministries of Agriculture about production levels and problems, and reactions to policies and improvement schemes.

EXTENSION AS A COMMERCIAL CONSULTANCY SERVICE

Major changes in the rationale and organisation of Extension Services in Western Europe occurred in the 1980s–1990s, coinciding with the profound political changes in CEE. These changes in Extension derived from political decisions in the 1980s that the beneficiaries of advice should contribute to the cost of its provision. The beneficiaries were defined exclusively as farmers, though not without some questioning of whether food retailers, processors and consumers also benefited from an efficient farming industry based on using sound advice and up-to-date information. Changes were also made in the level of funding and the organisation of agricultural research, as political responses to the incipient overproduction of food.

Extension Services changed, through a series of intermediate stages such as payment by farmers for specific laboratory services, to direct farmer payment for the provision of information and advice. The separation of Extension organizations from Ministries of Agriculture into Agencies was made in many countries in W. Europe and elsewhere, ending in privatisation.⁴ Hence, public Extension became private consul-

3 Rolls, M.J. (1997) The changing role of the Extension Practitioner. In Wallace, I. (Ed). Rural Knowledge Systems for the 21st Century. AERDD. University of Reading, UK.

4 Rural Knowledge Systems for the 21st Century: rural extension in Western, central and Eastern Europe. (Ed. I. Wallace) 1997. AERDD. University of Reading. UK. This contains reports from many countries.

tancy during the 1990s, with a market orientation towards its “customers” and an entrepreneurial approach to its activities. The change in culture that this required was often difficult, and only slowly fully achieved. Extension became established as a business, offering information as a private good with the ability to directly increase farm incomes, and giving advice on solutions to the problems faced by farmers and other users of land. Governments also became customers of the new consultancy services. Extension as a public good, separately funded and organised, also continued with programmes of general benefit such as protection of the environment. Hence, the agricultural industry in many European countries has acquired access to the kinds of commercial, specialised management consultants commonly available to all businesses in the industrialised countries. Information and advice are shared responsibilities of farmers, consultants and governments.

EXTENSION AS PART OF AN INFORMATION, ADVICE AND LEARNING SYSTEM FOR AGRICULTURE

The mixture of public and private organizations which has developed in Europe to serve the information and advisory needs of individual decision-makers at farm level, and of farmers in various associations and collaborative groups for producing and marketing, constitute information systems for farmers. In practice, studies have shown that farmers use multiple sources of information and advice, and construct their own systems from the sources which they find to be most reliable and useful. In addition to consultants, they use printed materials and other media of mass communication, agricultural shows and demonstrations, banks and accountants, input suppliers and universities and research institutes, as well as more social sources such as friends, families and other farmers, for both information and advice.⁵ Viewed as a service to agriculture, we are currently witnessing substantial variation throughout Europe in the providers of Extension programmes, in the methods of approach to farmers and in the users of services. These range from motivating producers to improve yields by using innovative technology; to working with farmers to understand the pressures they face in the local rural area, its environment and urban interests; to finding ways to satisfy consumer preferences; and to exploiting opportunities for new sources of farm and off-farm incomes. What is common to the Extension programmes is their contribution to responsible farm management decisions and plans for future farm viability; consultation to solve problems and help farmers to learn from experience, and intention to secure for farmers an adequate return on the investment they make (in time, attention and money) in their education and access to information and advice. Modern Extension Services deliver knowledge and information as agriculture's intellectual capital; and this is central to the management of farms.

FARM MANAGEMENT

In general, management can be described as deciding what to do and then doing it, either by oneself or more usually (even on small and family farms) through other people. A common definition of farm management is that it is the science of organising and controlling the resources of a particular farm or holding so that they yield for the enterprise as a whole the greatest continuous profit and that profit which the farmer desires.⁶ The uncertainties usually experienced in management are more strongly represented by defining farm management as the process by which resources and situations are manipulated by the

5 See, for example, Rolls M.J. M. Slavik and I. Miller. Information Systems in Czech Agriculture. 2000. Ministry of Agriculture, Prague.

6 Nix J.S.(1979) Farm management: the state of the art (or science) J.Agric. Econ. XXX(3)

farm manager in trying, with less than full information, to achieve his goals.⁷ A third suggestion relates management to marketing:

“Management is a comprehensive activity, involving the combination and co-ordination of human, physical and financial resources, in a way which produces a commodity or a service which is both wanted and can be offered at a price which will be paid, while making the working environment for those involved agreeable and acceptable.”⁸

Whilst not using the word “farm”, the source of the definition makes it clearly agricultural. The key features of these three definitions are the very broad scope of what is involved, the emphasis on the task of combining resources, the importance of markets and the inclusion of concern for people.

MANAGING A FARM IN PRACTICE

This involves having a *vision* or *goals* (hopefully, clear and realistic) for the farm (and the families involved) and setting *objectives* to achieve this. Then, *plans* are needed to pursue the objectives and *decisions* taken to convert plans into action. The implementation of the plan needs *control* in order to keep to the objectives. These managerial processes are applied to the *production, buying, selling, financing* and *staffing* of a farm within the existing economic, political, social and legal environment. “Managing” a farm as a business concerns the *future*, in terms of trading considerations (for which *budgets* are required) and capital considerations (which need *investment* appraisal). Deciding the future of a farm needs information on past and present trading in terms of *records* and *accounts*, and on past and present capital situations in terms of *balance* sheets.⁹ Establishing the correct use of terminology, and understanding the basic concepts, are essential to Extension programmes for farm management.

CONSULTANCY WORK IN FARM BUSINESS MANAGEMENT

This is usually focused strongly on examining the profitability and profits of a farm. If these are satisfactory, there may still be value in examining individual enterprises to look for cost-reducing or income-increasing possibilities. Both affect profits. If the profit level is low, individual enterprises and total outputs can be examined in terms of the yields and prices of the individual enterprises and the intensity of the whole farming system. The use of inputs can also be reviewed, for example of feeds, labour and machinery in relation to the theoretical requirements and to the levels of output being achieved. Consultants during the early years of farm management in the UK concluded that the most common cause of low profit was high costs rather than low output, but that the easiest way to improve profits was to expand production rather than reduce total costs. Good Extension work involves examining both production and costs within a particular system.

The style of consulting, or the way that Extension Services work, will normally involve both helping farmers to learn how to analyse, interpret and define the appropriate managerial action for themselves, and also doing some or all of this work for the farmers; it is a combination of educational and service roles.

7 Dillon J. L.(1980). The definition of farm management. J. Agric. Econ. XXXI(2)

8 The principles of farm business management in Fream's Agriculture (Ed.C. Spedding) 1983, RASE. J. Murray.

9 Giles A.K. and M. Stansfield (1990). The farmer as manager. 2nd edition. CAB International. Wallingford. U.K.

The purpose of this review of some principles of farm management has been to show the potential importance of farm management and extension programmes to farmers. To paraphrase Drucker, there may be no poor farms, only poorly managed ones.¹⁰

DEVELOPMENT OF EXTENSION IN CEE AS A SUPPORT SERVICE

When many or most of the large state farms in CEE were restored to individual ownership, or changed to different forms of co-operative and company farms, new arrangements were needed to deliver to farmers information and advice in the most suitable and cost effective way. Experience of Extension Services in Western Europe and other parts of the world was made available through exchange visits and various donor funded projects. Privatisation of Extension, the primacy of farm business management in extension work, and training consultants in ways of working with farmers were prominent common features of the experience transferred to CEE from many countries. How Extension Services should actually be organised was a more difficult and confusing matter. A start was made during 1990–1993 to address the problem that many (perhaps most, and especially small–scale producers) who had gained land and wished to farm it did not have adequate information to be effective producers. Progress since 1993 has been rapid, compared with the time generally taken to develop Extension Services in Western Europe. No single model was attempted, nor has it emerged: organisation has to take account of cultural differences and the individual country histories of agricultural extension and education. Many institutions that were well developed to work with farmers existed in the past in CEE. The nomenclature of the current institutional context for extension is informative of the diversity which now exists. The range (as translatable into English) includes National Agricultural Advisory Service (Lithuania), Agricultural Advisory and Training Centre (Latvia), Rural Consultancy Centres within Information and Advisory Services (Russia), National Consulting Agency for Agriculture (Romania), Extension Centres (Czech Republic), Certified Agricultural Advisers (Estonia), Agricultural Extension Institute (Croatia), Agency for Stimulation and Development of Agriculture (Macedonia), Regional Agricultural Advisory Centres (Albania), Government

Aided Extension Service System (Hungary) and a Rural Advisory and Development Service (Kyrgyz Republic). Two conclusions can be drawn.

First, all these Extension Services are fundamentally knowledge organizations; information is their input resource, information and advice are their output products. Second, the diversity can be categorised between two forms of organizations. Stated as extremes, one has information organised, disseminated and managed close to, or by, government with more or less public funding. This creates an integrated system for national research, extension and development. The other is more independent of government, less cohesive, user funded, and based on institutions that are local to the farmers, to create an information and advisory network system. What has happened, in practice, is that the extension organizations in CEE developed from one of four initial approaches. These were:

- Implementation of a pre-planned, government funded, national Extension Service for farmers and agriculture: a vision of a blueprint.
- A process of institutional development through networks of private, registered individuals and centres to respond to farmer requests; a vision of an evolving system.
- Re-structured or changed scope of work of an existing organization, such as a Ministry of Agriculture, to emphasise extension: a vision of re-organised functions.
- Building on the agricultural research system by giving to it an added role through an Academy or Institute: a vision of expanded activity.

10 Drucker P. F. (1970). The effective executive. Heinemann.

- The key issues for attention in developing extension organizations have been noted in numerous reports.^{11/12} Four issues are of special importance for farm management programmes and advice to farmers.
- *Awareness of, and responsiveness to, farmer needs for information and advice.* This is being achieved in general by the involvement of farmers in the management of the Extension Services in CEE and the planning and implementation of their activities. This is especially important for work in farm management because, whilst the need for help with crop growth or animal disease problems may be evident in field or cattle yard, deficiencies in business practices are less observable during travel in rural areas by extension staff. Formal, simple surveys are useful, for example to assess the current situation and the relative importance of suggested types of information,¹³ (their needs may not be well articulated by farmers) and what problems are acting as constraints. Surveys are especially important to collect data on farm costings, standards and statistics on which farm management advice is based.
- *Clarity of programme purpose and strategy.* This is achieved by a statement of mission in terms of what is to be done, for whom and why. It corresponds in many ways to a farmer's business plan. Decisions are needed about how much of the extension programme in farm management is to be focused on *changing* the approach of the farmer towards his business, in terms of his management techniques; how much assistance is to be given in the *choice* that has to be made among the options available for managing the farming system and developing the whole farm; and how much effort is to be devoted to more basic training and education of the farmer to *enable* him to manage his own farm business. Relationships of the advice to be given with government policy and research, and with the formal agricultural education and training services, need to be made clear. As farm management extension work expands, it will need to be made more systematic in its approach.
In defining the extension strategy, the starting point is that farmers use multiple sources of information and advice. Recent research already quoted in this review (Rolls, Slavik and Miller) suggests that in the Czech Republic, small scale farmers used on average 8 different sources for information and 6 for advice. Corresponding figures for large-scale farmers were 10 and 8, and on cooperatives and company farms they were 11 and 8. No farmer surveyed used less than 2 sources for information; one used 21. One farmer relied for advice entirely on his own knowledge and expertise; and one used 17 sources for advice. Farm management information acquired from professional sources such as Extension Services and mass media, will then be discussed and assessed within a farmer's social network of families and friends. This has implications for the methods to be used.
- *Good practice.* Farm management programmes should start with farmer motivation and farm objectives. Implementation, monitoring and evaluation of progress in the programme are key issues. Achieving good communication to facilitate teamwork within an Extension Service may often be more difficult than communication between the Service and the farming community,

11 For example, Adams, G. Effective management in Extension Advisory Services in Central and Eastern European countries 2000. FAO review paper.

12 Van den Ban A.W. Establishing Agricultural Extension and Consultancy Services in CEE countries. In Proceedings of the 2nd Conference on Eastern European Agricultural Extension (Ed) Kozari J.Eger. Hungary. MARD.

13 Rolls, MJ, M.Slavik and I.Miller (2000). Information systems in Czech Agriculture. Ministry of Agriculture, Prague.

but farm management programmes often involve bringing together a number of sources and kinds of expertise.

- *Quality assurance.* This is especially important; farmers will be affected by the successes and failures that come from the information and advice offered to them. Farm management information (prices, costs) changes rapidly and procedures for updating it are essential. Staff training and development based on careful planning, and developing in the Extension Service a culture based on the responsible acceptance of innovation and change by its own staff, are key issues for improving the quality of farm management advice.

THE CURRENT ORGANIZATION OF EXTENSION FOR FARM MANAGEMENT PROGRAMMES

The considerations stated above are now used to review the current delivery of farm management by Extension Services to farmers. The trends and situations described in country reports that have implications for farm management programmes are:

- Stabilised organizations for Extension Services, after a period of re-structuring during 1991–1997: attention can now be focussed on programmes rather than on re-organisations.
- Creation of single purpose extension systems, to separate the provision of information and advice from administrative services to farmers, whilst retaining linkages between the services.
- Reduced dependence on government funding and the creation of free, partly charged, and fully charged services; overall there is increased payment of fees by farmers, with transition arrangements through subsidised charges related to farmer incomes. Funding extension has been a central issue. In most countries, some form of cost recovery or payment for services has been evident from the start or has soon followed an initial free service. Vouchers have sometimes been used.
- Establishment of multiple-source extension systems with the possibility for competition between government, commercial company, private consultancy and institutional information and advisory services. This may act to create pressure for improved services, but positive action may be needed to share farm management data between the organizations involved.
- Creation of extension centres at national, regional, district and local levels has established possibilities for vertical and lateral communication and management, and give better access to farm management advice to farmers throughout the rural areas.
- Use of registration and certification procedures to assure basic levels of professional competency for staff in extension services, including farm management advisers.
- The provision of more specialist staff in Extension Services for farmers especially in technical aspects of agriculture, and of agricultural economists, often acting in teams.
- The organisation of some in-service training programmes for extension staff by Higher Education institutions, as a formal requirement of employment as advisers.
- Increasing recognition by farmers of how extension can benefit them, and more demand for services; these are still dominated by technical production questions but increasingly concerned with farm economics.
- Introduction and development of reporting systems (commonly monthly) to inform senior management of the programmes and activities carried out at local level so that the quantity of farm management work can be identified.

- Some extension through group formation, so that farmers with similar needs can attend courses and other educational events delivered by specialists, free of charge. Group work is especially important for farm management education.
- Increasing farmer participation in the management of the Extension Services and the design of programmes, and more possibility for priorities to be influenced by farmers.
- Management of extension through partnership arrangements, for example between government, private companies and farmers in non-profit making agencies for extension. This should increase access for smaller scale producers by increasing their influence and limiting costs.
- The introduction of performance evaluation methods for advisers, and incentive schemes for staff based on financial and promotional rewards. These can be expected to increase farmer confidence in the Extension Services.
- The continuation of a small – scale, largely subsistence sector of agriculture in some countries and regions. This has a positive effect on employment and social problems in the rural sector, but has major implications for extension policy and practice towards the provision of programmes on the management of such production systems.
- Discussion of whether some targeted use should be made of extension, for example by concentrating farm management programmes on larger or more progressive farmers (with other arrangements for the rest), or whether there should be equal access to advice for all producers.

These trends and situations are re-visited later in the review when specific constraints and possible improvements are discussed.

AGRICULTURAL PRODUCTION AND FARMING SYSTEMS

The transition from large-scale collective farming to smaller-scale (and very variable) private farming is now at an advanced stage: for example, in Hungary 90 percent and in Latvia 95 percent of the production area is reported to be in private ownership. The owners may, or may not, be farming the land. In Latvia, at least half of the private farms lease the land to other farmers. However, large-scale, new forms of cooperative or company farms remain an important sector of agriculture in some countries. Agriculture is still a major source of employment in some countries: in Albania 50 percent of the working population is in agriculture, and more than 50 percent in Moldova.

The individual and family farms are widely regarded as a realistic focus for farm management extension programmes: the larger forms of collaborative production commonly employ their own finance, economic and management specialists. There is currently some criticism of the performance level of family farms. The constraints have been identified as inadequate knowledge or skills of the producers, inadequate services including extension systems and deficiencies in the institutional framework such as the arrangements for credit and finance, and property rights. Farm management extension can be used to address these criticisms. It is possible to characterise a small, family farm to assist thinking about what is significant for advice on managing the farm as a business. Its size will vary from 2 to over 30 ha, but farmers will commonly have 10–20 ha of productive land. There are exceptions: in Romania, 96 percent of private farms are less than 7 ha, and in Moldova the average farm size is 2.9 ha. As important for farm management extension as size, however, are the following six considerations:

Ownership and structure of the land:

Ownership may influence decisions about long term investment in, and improvement of, the farm. Farms are commonly fragmented. In the Czech Republic, a study (Rolls, Slavik and Miller) found that small farms as currently established had up to 29 separate pieces of land and that the average was 7–8 pieces for a total average size of 60 ha. This farm structure may have some production advantages, for example, giv-

ing the farm varying soil types and a lower risk of major flooding; presumably it can also cause inefficiencies in farming operations. However, pressures in future may be expected to lead to land consolidation and larger farms with contiguous fields. The same study showed that only about 22 percent of the farmland on small farms was owned; the rest (78 percent) was rented. In Lithuania, 27 percent of the farmland was stated to be owned. Little more appears to have been reported about the consequences of these ownership and structural characteristics for the planning of extension programmes in farm management, and this merits further study.

Complexity of the farming systems.

The small farms in the study quoted in the Czech Republic, made more integrated use of inputs, by minimising bought inputs (such as fertiliser) and re-cycling waste products; the conventional use of bought inputs to optimise yields was more common on larger private, cooperative and company farms. A decline in input use in CEE farming has been widely reported. In 1998, about 6 percent of the small farms surveyed in the Czech Republic reported operating an organic farming system, a much higher proportion than in the case of larger private and cooperative farms. The small farms were, typically, mixed systems but a higher proportion of such farms were self-assessed as livestock farms compared with the other categories of farms. They were also rather more specialised in terms of the average number of enterprises. Five crops (most often wheat/barley, maize, potatoes, oil seed, fodder crop) and two livestock (most often cattle and pigs) was the commonest production system. The larger farms had a larger number of enterprises. Overall, compared with Western Europe, the farming systems in CEE appear to be more complex., making the management and information needs presumably also more complex. Extension events and materials aimed at improving incomes from this kind of mixed system would appear to be likely to attract the largest audiences of farmers.

Long term goals.

A careful exploration of individual and family goals is basic to farm management extension work for farms of all sizes. It is especially important for the smaller farms where future viability may be closely related to innovation. At its most fundamental, the question of goals is related to the level of economic optimism of farmers and whether there is an expectation to continue farming in the foreseeable future. The study quoted (in the Czech Republic) looked at the future expectations of small-scale farmers using four criteria. These were (i) an expectation to be farming for the next 5 years, (ii) for the farm to be bigger in 5 years, (iii) for an intention to invest in the farm in the next 2 years, and (iv) for a record of having invested in the farm in each of the past 2 years. The numbers responding positively to these criteria were 98 percent, 64 percent, 54 percent and 37 percent of the small farmers respectively; all these figures indicate considerably higher levels of economic optimism than the responses of the larger scale farmers of all kinds. They suggest the continuation of small scale production units. It would be useful to have similar data from other countries. It is likely that farm management extension work will confront the difficult decisions that lie ahead for such farmers. They concern whether to leave farming, as farm amalgamation pressures continue to lead to a secure future only for larger scale units, or to seek market niche opportunities for specialist products or opportunities for diversification. These kinds of decisions will bring farm management advisors into contact with farmers' emotions and attitudes that greatly complicate the process of giving advice, and require sensitivity and a broad understanding of rural affairs.

The place of the farm in total family income.

This is closely related to goals and farming systems. Part-time farming, or income supplementation from non-farm sources, is common throughout Europe and may be a growing trend. Again, in the Czech study, some data are available. About two thirds of the small farms were run using family labour only; on 30 percent some labour was hired, and seasonal labour was taken-on by about 7 percent. For a little under two thirds of the small scale farmers, the farm was the only source of income; about 20 percent obtained some additional income from offering a service to other farmers and 20 percent had some income from

non-farm sources. The implications for farm management advice are either to adjust farming systems to the labour supply available, or to maximise income from other sources and activities without detriment to the farm contribution to total income.

Personal factors.

Understanding the farmer, the family, and their aspirations is basic to all extension work, and especially so with farm management advice. Factors such as age (which may affect motivation, energy and livelihood needs: there is usually no retirement age for farmers), and level of education (which may affect abilities and skills) are usually observable and knowable. Other factors such as attitudes and values may be more obscure. Again, drawing on the Czech Republic study, the majority of the small farms (82 percent) were formally managed by men; 10 percent were jointly managed by man and woman. The average age of the men was about 47 years. Perhaps surprisingly, University graduates in agriculture were more numerous in small farms (12 percent compared with 3–4 percent on the other kinds of farms): where labour was employed on such farms nearly 23 percent of the workers had agricultural education at secondary school level compared with 12–14 percent on the other kinds of farms. The evidence available suggests that the levels of general and agricultural education (human capital) is a major distinguishing characteristic between farming in CEE countries. This has significance for the sharing of existing national farm management training materials, and possible production of new regional materials for use with farmers. A further important factor is that where the new farmers had previous experience of farming (and in the Czech study, 19 percent of the small-scale farmers were from industrial and other non-farm backgrounds), this was not in management at the specific level of what was now their own farm.

MARKETS, INFRASTRUCTURE, INSTITUTIONS AND POLICY

The transformation of agriculture and farm structures since 1989, which has been the basis of this review so far, is paralleled by the change from planned to market economy in which (at least in theory) equilibrium prices should arise from the interplay of supply and demand, within a production system that is self-adjusting. As has been noted, there remains in CEE countries a significant sector of household-based, primarily subsistence production on small land areas of about 0.5–5.0 ha, intended to enhance incomes by the use of land in various ways. An informal economy also often operates, involving for example, barter and shared resources. This sector represents a considerable challenge to conventional farm management techniques. Such non-cash transactions will probably be ignored in Extension Service programmes for farm management, and merit further analysis and study.

There are widely reported difficulties in organising selling from farms, in obtaining timely payment arrangements and equitable access to inputs, in working with the non-regulated market for land and in managing bank credit related to land as a marketable asset. These create a general situation in which deficiencies in the marketing systems may cause the later stages of the food chain to impede the efficient production activities on the new privatised farms. In a sense, this is a condition of agriculture: markets are dynamic systems that are constantly adapting to their environments. It is a particular condition to be faced by farmers and their advisers when entry to E.U. markets is contemplated.

Policy at national level continues to be focused on further re-structuring of agriculture to create an industry that is compatible with E.U. farm structures. It is increasingly encouraging production practices that meet the demands of consumers at international standards. Diversifying the rural economy, respecting and protecting environments, and creating legal frameworks that will enable flexible working arrangements to develop are current policy goals. Overall, the aim is to create an economically efficient agricultural industry. The key issues for this review are (i) whether the present situation makes it possible and worthwhile to intensify efforts through extension programmes to develop the marketing skills of the producers in CEE countries; and (ii) whether producers have an adequate understanding of agricultural policy and are able to participate in its development.

The need for farm management extension to assist marketing

Many studies and conferences have concluded that farmers lack information on where and how to market their produce, especially in emerging new markets, and are not skilled in understanding and using such information even when they access it. The possibilities that exist for encouraging farmer cooperation through forming producing and selling groups, engaging in contract farming, establishing farmers' markets and identifying specialised market niches, have been noted. These are the current trends in agriculture in Western Europe. There is some evidence that CEE farmers regard marketing information as very important within their total information needs. For example, a study of the services actually provided to larger-scale producers by consultants in Hungary¹⁴ gave Supporting Market Information as the ninth most common activity in a list of 17: this is a measure of response to need rather than the actual need expressed by farmers.

In the Czech Republic study already cited, marketing information was ranked first in importance by respondents on small and large scale private farms and cooperative and company farms; second place was given to processing and selling which are related types of information. This high ranking was not affected by the number of enterprises (i.e. complexity of the farming system) on the farms. In a market economy there remains a role for government through giving legal and administrative support, infrastructure development, price monitoring and market reports, crop reports and commodity analysis. Extension Services can promote the development of a Market Information System with information on products, inputs, product flows; population centres and markets; transport linkages and market outlets, and environmental problems.

As far as policy information is concerned, however, there is some evidence that this is not highly rated as important by many smaller farmers; policy may be largely unknown, or accepted as something beyond local control. An illustrative comment is; "Our farmers' organizations are unfortunately too weak to tell us (i.e. the Extension Service) what the farmers need". In the Czech study, government policy information was ranked seventh among ten types of information by small-scale farmers, but third or fourth in importance by larger scale farmers and cooperatives and companies. E.U. policy information was not yet seen as important and was ranked 8th–10th by all categories of farmers. There are opportunities to link general farm management advice with promoting greater awareness of policy issues.

CONCLUSIONS FROM REVIEWING THE INSTITUTIONAL CONTEXT FOR FARM MANAGEMENT IN EXTENSION PROGRAMMES

Before reviewing the more practical and operational aspects of the current status of farm management in extension, a statement of what has emerged from this examination of context produces criteria against which to assess the achievements, and define a strategy for farm management advice for farmers. An effective farm management extension programme should:

- Integrate production (i.e. technical) with marketing information and advice, by regarding these as a continuum to be managed to achieve the farmers' goals.
- Develop both the management skills used in farming in terms of techniques, and a broader concept of what is involved in being a manager who is also a farmer.
- Start farm management advice not only from records of products and yields and analysis of profitability, but also from an audit and assessment of all the available farm resources and how,

14 Survey conducted by St. Stephen University, reported by Kozari J. Dept. of Education, Szent Istvan University, Godollo, Hungary.

and how well, they are used and what possibilities there are for non–farm income generating activities and employment.

- Encourage both the individual entrepreneurial ability of farmers, and their interest and competence to cooperate with other farmers in producer groups to exploit special marketing opportunities.
- Emphasise the need for farmers to have both short–term management efficiency in their farm production, and a longer–term vision and awareness of the future of the rural economy in the locality.
- Use a general approach to farm management by Extension staff in contact with farmers at local level, and have available a specialist back–up service either within the Extension Service or through collaboration with other agricultural institutions with an expertise in farm management.
- Develop a strongly supportive agricultural economics information service through surveys and data collection on an area basis, to give the necessary economic data on which to base advice on the management of farms.
- Maintain a balance between farm management advice which is given in the best interests of individual farmers and the needs of particular farms, and broader considerations that derive from government policy towards the agriculture sector as a whole. These may be in conflict, to some extent, especially in extension work by publicly funded organizations.

4. CURRENT STATUS OF FARM MANAGEMENT IN EXTENSION

This section of the review is based mainly on the situation in Croatia, Hungary, Latvia and Lithuania. The range of organizations delivering extension services, and offering information and advice as market products, has been shown in this review to be substantial. They include a specialised Agricultural Extension Institute fully funded and managed by government within its Ministry of Agriculture; private registered consultants who are supervised by the Ministry of Agriculture; Regional Extension Centres, given government funding for programmes requested by farmers; an Agricultural Advisory and Training Centre as a non-profit making limited company with government (Ministry of Agriculture) as the major shareholder and a small stake held by the national Farmers' Federation; and a national Agricultural Advisory Service as a non-profit making organization managed by a National Advisory Board with membership from the Ministry of Agriculture, Farmers' Union and Association of Agricultural Companies. In addition, Agricultural Schools, Research Institutes, Universities and private companies have an actual or potential role in farm management Extension. The structures of these organizations are outlined in Appendices to this review.

STAFF RESOURCES FOR FARM MANAGEMENT

All the Extension organizations reviewed have some specialist staff for farm accounting, farm economics, farm management and tax accounts, located at national and regional centres. Other specialists are in Higher Education Institutions. Advisers within commercial supply companies are likely to limit their work to farm management related to the material supplied, for example machinery, within the particular farming system of the purchaser. There are obvious merits and difficulties in this arrangement, but work done by the private sector may be important, for example in Hungary.

Extension staff at village or farm level act as general advisers, and have often been trained to include farm management advice within their activities, with specialist support as needed. The main difficulties in the present situation that have received comment are:

- The effects of a short and flat career ladder which gives limited incentive for good specialist advisers to advance their careers within the Extension organization; there is sometimes also an absence of a performance assessment system.
- Conflicts in priorities for Extension Service work. These are caused by the broad scope of the role responsibilities of advisers, heterogeneous farmers and farming problems that confront the limited staff resources, and the large potential and actual number of recipients for farm management advice and information.

It is difficult to quantify the resources available, and the demand for, farm management advice. Simple ratios of numbers of farmers per adviser may be very misleading: other factors such as the communication and marketing infrastructure and the quality of the economic data available affect the actual impact that advisers can have on farms. Data for Latvia suggest that 205 staff are employed in the national Advisory and Training Centre, and that there are some 95,000 individual family farms with an average size of about 14 ha. Assuming that not all of these farms could benefit from farm management extension, the real farmer base for advice may be about 70,000 and this gives a ratio of one adviser for about 340 farms; there are, in addition, private consultants whose services will reduce this ratio. In Lithuania the Extension-Farmer ratio appears to be about 1 : 870. In Croatia, the proportion of Agro-economy subject matter specialists among the total 156 specialists is 5 percent; in Hungary it is 4 percent and in Latvia 2 percent. FAO data on Agricultural Extension in Europe, (1990, based on 13 countries, including Hungary and

Czechoslovakia) suggests that on average there are about 430 adults active in agriculture for each extension agent. It seems safe to conclude that, in general, farmers should be able to gain access to Extension advisers, though much of this may be focused on production problems. Because the demand for farm management advice is reported to be rising, it is a situation in which currently some form of rationing of specialist management advice is likely to exist. This takes the form either of a service mainly to those farmers who can pay, or a service offered only to those producers who are selected by advisers for their own professional reasons. The criteria they use are typically farmer progressiveness, ease of access to the farm, and larger scale of farming. In Latvia, a study found that larger farms, private ownership and economic strength of the farm influenced farmer use of the Extension Service.¹⁵

THE PRESENT SITUATION

The reports available for the review suggests that the stage reached in the development of farm management advice can be characterised as follows:

- There is a serious lack of reliable economic data on farm production, collected on a regular and prescribed basis, such as has existed for some time (a century) in Western Europe. Establishing a suitable mechanism for collecting and using such data is fundamental to the development of farm management services to farmers.
- Where farm management advice is given as only a small component of the general agricultural duties of village level agriculturists, there is a risk that technical and economic competence may be obscured by the administrative tasks being performed. In this situation, local staff will function mainly as links with specialists; and the latter may be distant and comparatively few in number.
- The system of registering Extensionists and Consultants to give farm management advice has no mechanism to achieve relatively uniform geographical and professional coverage for all farmers; there may be regional and local differences in access to farm management consultants.
- Categorisation of farmers by level of income in order to organise free advisory services is dependent on the existence of accurate lists of target producers, and these may not be available to Extension Centres. Slower, more expensive, indirect methods of identifying beneficiaries have then to be used to plan programmes and deliver services.
- There is a strong emphasis on using personal and individual methods for farm management extension: farm visits and visits by farmers to Extension offices are reported to be the most common methods. Individual advice is regarded as the most effective method in terms of farmer acceptance of advice: however, it is clearly limited in its impact on the farming community when Extension resources are also limited. There is scope for more use of mass media and, especially, for the establishment and use of farmer discussion groups. The latter is a major need.
- Both the practice of extension work and the training given to advisers tends to be oriented on (or to drift towards) technical subject matter. This is caused by farmer concern with day-to-day production management problems, rather than with longer term economic business planning, and by the common bias towards science and technology in the initial formal education of advisers. The transformation of a whole system of agricultural education and extension to give it more emphasis on rural business management, and to place technology in the context of the

15 Tisenkopfs T. and Zabena A. (1996) Agricultural advisory system in Latvia. Latvian Academy of Sciences. Riga.

economics of its use, takes time to achieve. Pressure (through conferences and meetings) is needed to accelerate this change in thinking about farms.

- Where farm management has become (or is becoming) an important component of Extension programmes, it tends to be limited to acquiring the techniques to analyse profitability in terms of costs and income. The current situation of rapid change and conflicting pressures on rural areas makes it important to go beyond the acquisition of skills and techniques into an understanding also of the issues that relate to the strategic management of farms. The present is important; the future is crucial.
- However, the important work currently being done by Advisers to develop bookkeeping and farm accountancy is also helpful (and necessary) to subsidy and loan applications based on farm business plans. Hence, this does have a longer term value.
- Whilst Extension Services are in their early stages of development, and when they face competition from the private sector for Agriculturists who can work well with farmers, there is a tendency for Extension staff to leave for other employment. A Service staffed by experienced and older advisers will also face regular loss by retirement. Hence, despite substantial training inputs, there are reports that maintaining (still less increasing) the members of Extension staff trained for farm management work has been difficult.
- The work done by Extension Services so far, although doubtless very useful and important, appears to be rather fragmented. There are multiple services at work. Within the programmes, information is divided into a number of technical and production subject areas. Some information is directed to serving legal and administrative ends. There is thus only limited synergy in the farm management information system, and a focus may not be sharp on the decisions to be made by farmers in order to develop the most profitable businesses around their available (or acquirable) resources. There appear to be possibilities for some sharing, through simple coordinative action, and packaging of information which would be of benefit to the Extension systems as a whole.
- There is increasing policy awareness of the need to adopt practices and standards of food production that satisfy the requirements of international trade in agricultural products, and of national demand for environmental protection. These make the management of the whole farm (for example including disposal of waste materials) increasingly important, and so have implications for the kind of farm management advice given to farmers, and for the scientific evidence and economic data needed for this.
- There has been a substantial investment in computer technology for use by many of the Extension Services at national and local levels, and by some farmers who have a perceived actual or potential role for computers in farm management. Data available for small farms in the Czech Republic (Rolls, Slavik and Miller) suggest that more than one third of these farmers had a PC and that rather less than a third (29 percent) actually used this equipment in managing their farm. The majority of these stated that they were planning to increase PC use in their farming. Some were attending training, as were some farmers without a PC, in preparation for computer use in the near future. Computers are only aids (not essentials) to farm management; but they are very useful aids. The questions that arise for Extension Services are whether more study of the ways in which PCs can be beneficially used on small-scale farms in CEE would now be useful, and whether a more rapid diffusion of this technology on farms would be merited.
- Experience is available in some countries of the use of regularly published materials for farmers such as magazines, newsletters and brochures. These often include topics in agricultural economics and agricultural law, as well as practical advice on production technology. However, it is not clear how well these materials have been produced to act as distance learning materials for direct use by farmers, for example with the supportive use of video and audio cassettes, in or-

der to teach farm management. Demonstrations and trials on farm fields are also a well-developed extension method (in Latvia and Lithuania, for example), but again it is not clear how strongly economic and management (rather than technical) considerations are quantified and used with the farming audiences who attend them; there may well be scope to develop this. There are also well-developed national and international Exhibitions and Trade Fairs for agriculture in many CEE countries, which are a base for farm management education.

- A subscriber system for farm information was started in 1997 in Latvia, with a reported 350 subscribers. It may be possible to develop this further as an alternative or complementary way in which to finance Extension Services, for example by adding a fixed number of uncharged advisory visits to farmers in the subscriber system. This kind of arrangement has been successfully established in Scotland.

EXTENSION METHODS USED IN FARM MANAGEMENT WORK WITH FARMERS

An overview of the methods used and the likely impact of the Extension Services on farming is given by the following data on the methods used; they relate to a yearly programme.

Methods used	Indicators of impact in			
	Croatia No. held and produced	Hungary % of advisers using method	Latvia No. held and produced	Lithuania No. held and produced
Farm visits and office consultations		Most commonly used method		
Lectures	1 312	42	na	na
Courses	–	3	For 12 000 farmers	46
Group discussions	na	na	na	na
Conferences and	na	na	na	na
Seminars	na	na	na	627
Demonstration and field days	1 234	68	On 160 farms	220
Newsletters, Leaflets, Articles, and Brochures.	19	11	350	836
Other media, TV and radio.	3 005	–	–	680
Multimedia	17	2	–	-
Computer inf. Systems	na	2	na	na

Caution is needed in interpreting these data. It does seem, however, that group methods are relatively little used. Experience in some other countries (in Western Europe) suggests that when groups of farmers (perhaps 10–20 members) were organised to meet Advisers regularly, the teaching and learning of farm management was enhanced and progressed. Furthermore, the foundations were laid for other forms of mutual assistance in production and marketing. The groups commonly met on farms (often in kitchens) and used the members' performance data for analysis and discussion.

An indication of the emphasis given to farm management topics within the content of extension programmes is available from Lithuania. Within the range of topics communicated (crop production, agricultural business and accounting, animal husbandry, rural tourism, and buildings and machinery), 25 percent of the courses concerned agricultural business and accounting, as did 30 percent of the radio and television programmes, 44 percent of the publications (leaflets and packages) and 24 percent of the seminars held.

In Hungary, within the total extension work done by contract consultants, farm management topics were about 36 percent of the total. The demand for assistance through advice on farm management is generally considered to be increasing, though in Hungary there is evidence that this is mainly by larger farmers; demand appears to be less strong by the smaller scale producers who request help with production and policy and rural development issues much more than with economic management.

Some examples of the kind of farm management work done by Extension staff illustrate the considerable range of service that is possible, and emphasise the breadth of training needed by these advisers.

- One way in which to expand production and seek a higher income is to buy more land. The cost of the land is known, as is the rate of interest and the duration of the loan. The risk element in this decision is managed if the additional income needed for the yearly repayments is shown to be within the extra income to be gained from the new land. The question therefore became what single or mix of products (enterprises) will maximise the farm profitability? The basic farm management skills given to the farmer enabled this decision to be made, and a suitable farm business plan was produced.
- The high cost of fertilisers makes it important to obtain the optimum yield from their use. Farmers can obtain the technical data needed for a fertiliser plan, such as soil analysis results and the characteristics of the crop to be planted. An Adviser with access to computer technology helped the farmer to examine the predicted outcomes of different levels of fertiliser use and the calculated expected income from this. The outcome was efficient resource use and higher productivity from the farm. It is also a step in the direction of allowing farmers to explore their reactions to differing levels of change in production systems, a key issue in farm management.
- On a medium size farm (less than 50 ha), dairying was a minor enterprise, and low levels of crop production made the farm unprofitable. Gross margin analysis suggested that developing the dairy enterprise would be more profitable than improving the crop production. A large investment was needed. A business plan was made to enable a bank loan to be taken, and government support secured. Bookkeeping enabled actual results to be compared with the plan. Advice was also given on animal breeding and feeding. In two years, the number of cows, milk yields, and farm income were substantially and economically increased. The farm management skills acquired by the farmer are available for further use in future.

FARM RECORD KEEPING

Bookkeeping and farm accountancy concern records. Farm record-keeping serves a number of important purposes. For a farmer, records are essential for tax and other legal uses and for good farm planning and management. For Extension Services, farm records are an important input into economic databases that can be maintained by farm economists as a means of comparative analysis, to establish standards against which to measure individual farm performance. Considerable efforts and progress have been made with farm records in some countries and with some categories of farmers. Records of building and machinery linked to farm registration in Hungary, are essential for access to government subsidies. Extension services have assisted farmers to understand bookkeeping and to keep farm production and marketing records, by direct teaching. Indirectly, help has also been given by producing appropriate forms and suggested tabulations, which can routinise and standardise the kind of data collected, and its collection. This can be in a form which lends itself to computerised processing. Keeping records is closely related to the demand reported to come from larger scale farmers for assistance with business plans, enterprise improvement, market information, finance, and taxation and public accountancy. In Lithuania, where farmers are also obliged to keep records to obtain state support, advisers give help with learning how to keep simple and double entry accounting systems. It is reported that the majority of farmers are not yet sufficiently skilled to operate these systems without the help of specialist advisers from the Extension Service, although this is presumably a situation which will improve. In Croatia, work has been done to develop

(with pre-testing) forms (tables) on which economic data recording can be done, followed by their use in production analysis. This is reported to have been highly intensive in the use of Extension staff and in their use of time; it was justified by the expected diffusion effect of record keeping as a practice from those who had been trained, to other farmers. It is expected that appropriate materials for data collection and their economic analysis and use in planning will soon (2001) be available for use on family farms. Incentive to keep farm records in Croatia has been limited because legal prescription has been applicable only to the (relatively few) farms where a V.A.T system operates. In Latvia, work started in 1997 to develop a farm accounting data network and a database for product sales and processing. Considerable assistance to farmers with farm tax accounts was reported by the Extension Service: bookkeeping has a high priority in programmes and is essential for subsidy application and reimbursement of V.A.T. The LAAC bookkeeping services are said to be used by more than 1000 (of 11,000) Latvian farmers for whom V.A.T reimbursement is applicable.

5. FARM MANAGEMENT TRAINING AND MATERIALS

MATERIALS FOR FARM BUSINESS ADVICE

Two kinds of materials have been produced. First, there are materials mainly for use in Extension staff training courses but which (sometimes with adaptation) are also suitable for use with at least some categories of farmers. Second, there are materials specifically prepared for use by producers, usually with some tuition from Extension Service staff and consultants. Some examples of the latter (forms used in bookkeeping and farm accountancy) have already been noted. There has been a considerable input of materials from countries in Western Europe through E.U. assisted projects to develop support services, together with some subsequent adaptation and refinement by staff of CEE Extension Services. The materials are, in general, detailed, well-written, practical and illustrated by examples. A Farm Business Manual produced annually by the Lithuania AAS, for example, has content on planning, implementing and monitoring of business plans, records, acquiring and using agricultural machinery, managing profitable farm enterprises, credit and agricultural law, taxation and insurance matters. In Latvia, a Workbook for Farmers was developed in 1998 to provide a study book for farmers with which to learn financial planning and capital management (related to bank loans) and how to prepare farm budgets. The content was; basic farm description; crop rotation; gross margin, depreciation, tax and profit and loss calculations; balance sheets; and cash flow. There is a criticism that the use of these materials may need considerable help from Extension staff (the appropriate level of complexity is difficult to fix, and the ease of use may be questioned) and that they do not come to a useful focus on how the necessary decisions should actually be made by the farmers. Similar materials have been produced, again pre-tested with farmers, in Croatia. An example is a Plant Production Register, which facilitates the assembly of technical data on a specific crop, and includes a recommended form on which economic data can be recorded in order to analyse the financial outcome of producing the crop. Another development of recording forms was for dairy production. By linking this to a trial approach to feeding dairy cows (using different production systems for pasture and grass silage), evidence was acquired of the value of both record keeping and the Adviser's work on farm management. An early warning system for pests and diseases is also reported to be developing in Croatia, as an example of the use of systematic, area based, data recording. The production of farm management materials (such as a model and methodology for gross margin calculations, and a programme for farm business planning) in Croatia has also been undertaken as a continuation of a training project implemented by Danish Advisers. Another thrust in training materials will be aimed in future at advice on investment planning.

The system in Hungary of offering services at the farmers' requests through registered private extensionists, makes possible a needs assessment, as indicated by an analysis of requests made. Within the general area of farm management, bookkeeping related to finance and taxation, the profitability of enterprises, and accountancy are prominent requests. Responses, however, appear to be based on the use of individual advisory meetings or organised courses rather than the production of training and self-learning materials, though some support to meetings and courses is given through brochures which explain data registration and suggest the forms on which this can be done.

The main pathway for the production of training materials for farm management has been through the considerable efforts made by trainers working in specific, funded projects within CEE countries. These have gone beyond producing specific materials to support the primary training courses, in some cases, into the production of handbooks and brochures for use by farmers. A good start has been made. Experience has suggested that the materials should be:

- Simple and systematic and illustrated by many examples.

- Designed to encourage regular data recording and analysis by farmers as part of a continuous thinking process about the management of farms as businesses.
- Linked to the use of PCs, where possible, and appropriate computer programmes for farm management.
- Related to areas or systems that make comparative analysis possible; for example, data collected within designated agro–ecological zones, and for identified soil classification and land use areas.
- Developed for particular user domains such as farmers who are relatively younger, with bigger farms and more specialised commercial production systems; such targeting needs very careful organisation to ensure that more minority but important interests are not neglected.
- Designed to be integrated with discussion with farm management Extension staff. This is not only to allow the analysis and calculations involved to be checked, but to focus on the interpretation and evaluation of the data, and their role in the judgmental skill needed by farmers in making decisions about appropriate farm plans and strategies.
- Linked with contributions from specialists in Extension Services and local Universities (Departments of Agricultural Economics); the latter helps to develop the abilities of academic staff to teach Farm Management and to train Advisers and Consultants.

Within the steady progress being made to increase the awareness, understanding and use of farm management practices by farmers, through materials produced for training courses, there have been a number of innovative and distinctive approaches. These merit attention, and further development, as part of a process of identifying best practices. They have already emerged in various sections of the review, but are consolidated now to emphasise them as points for future development. They are:

- Combined production and management information for major specific enterprises, produced as a user – friendly Production Register, which could be developed further as a guide to farmers on how to make sound and responsible decisions.
- The input by farmers into all stages of media production from the choice of topic, pre–testing, evaluation of usefulness and diffusion of the farm management information to other farmers. Farmers writing about their experience are often influential on other farmers.
- The production of a Workbook for Farmers which could be developed towards self–education (distance learning) materials, with limited supplementation by Extensionists, and the use of multi–media approaches.
- The formation and use of a Work Group, selected from the participants in a sequenced Extension training programme, to produce farm management materials derived from the training and to take other action to re–inforce and disseminate the training programme. This is an example of how training can be directly linked to development action.
- Producing good materials for data recording work with farmers as a step towards developing computerised systems.
- The use of a farmer subscriber system as a way to link demand with a targeted supply of farm management information, on a financial basis.

FARM MANAGEMENT IN FORMAL EDUCATION PROGRAMMES

Farm Management (in the form of Farm Economics) as an organised body of principles and techniques, developed within the broader subject of Agricultural Economics in the early years of the 20th century, in

Europe and the USA. Farm accounting methods for use with enterprise and field-by-field costings were later (and gradually) developed into a whole-farm approach. The concept of the gross margin and the idea of budgeting were being developed in the 1920s.¹⁶ However, substantial advice on practical farm management was not commonly offered to the farming community in Western Europe until after the Second World War; for example, in Britain a major training programme for Agricultural Advisers in Farm Management was started in 1948. By 1956, U.K. farmers were becoming acquainted with a business approach, and changing what had previously been farming based on husbandry derived from science and technology into an additional dimension of economics.

In the Universities in W. Europe with an interest in teaching and research in Agriculture, Farm Management dominated Agricultural Economics for some years. Then some functions (such as farm level investigation and evaluations) were increasingly taken over by newly created farm management advisory services, and Agricultural Economics became re-oriented (to some extent) on econometrics, international development, marketing, policy studies and environmental issues. Alongside this changed interest in Farm Management, liberalised markets for agricultural products caused farmers to focus more on understanding the business environment in a less industry-specific way, and to be also interested in what they could learn from business schools and other areas of economic thinking. To some extent, the subject of Agricultural Economics has tended to be changed more by academic objectives than by industry needs,¹⁷ and Farm Management has tended to become an optimal, specialist interest.

These brief and probably controversial comments on the status of Farm Management in formal Higher Education programmes internationally is intended to introduce a review of the contribution of Universities and Vocational Agricultural Schools in CEE to the training of extension workers (generalist or specialist) in farm management.

Many CEE Universities have well-developed arrangements for teaching and research in Agriculture. They are commonly organised as Faculties of Agronomy, Forestry, Technical (machinery) and Agricultural Economics and Management. The latter have faced the need for major adaptation of their work to new economic systems for agriculture since 1989, and have sometimes responded with rapid growth and broadened interest. The Czech University of Agriculture at Prague, for example, has currently a Faculty of Economics and Management which is the biggest Faculty. Its interests cover economics, business and administration, trade, informatics, sociology, business law, finance and management. The list is not exhaustive. It aims to educate specialists for the management of technological processes in agriculture; managers; and economists for finance, banking, insurance, informatics, business, trade and other services to the agricultural and food industries. Within this spectrum, study of the administration and management of small farms and the economics of agricultural commodities and farming enterprises is possible, as an option, for those with an interest in primary production. There is clearly a potential to contribute to Extension work in farm management, though the involvement of the University in Extension activities is still at a relatively early stage of definition and implementation. In Hungary, University work in Agricultural Economics and Management includes planning, organisation, control and supervision of production and finance, marketing and personnel management. Hence, it is similar in its academic orientation to the work done in other countries. It has also teaching and research interests in Extension Services, and the role of information transfer in agricultural development. Students are given some useful preparation for careers in Advisory Services. The involvement of a University in direct teaching to farmers in aspects of farm management such as accountancy systems, financial statements, enterprise analysis, risk management, capital and credit, labour management and farm development is not only of value to the

16 Giles A. K. and P. J. James. Farm Management Liaison: a unique era. Study No: 32. Dept. Agricultural Economics and Management. University of Reading. 1993.

17 Warren M. Farm management: the death of a Discipline? Paper given to Conference on Higher education in Agriculture University of Plymouth. 2000.

farmers; it also acts as a bridge between the University's interpretation of Agriculture as an academic subject and the practical realities of farming as a means of livelihood. This is of benefit to staff and students.

In Latvia, it is reported that, at present, there is only a limited capacity at the University of Agriculture (in terms of academic interest, specialist knowledge and practical experience) to make a useful contribution to the Advisory Service and farmers through the teaching of Farm Management as an organised subject. It appears from this conclusion that Farm Management is still at an early stage of organisation as a component of Agricultural Economics at University level.

In Lithuania, until recently, there was also little special attention paid in Higher Education to the professional needs of business advisers in agriculture. However, a programme has now started (1997) at the University of Agriculture for a Master's degree in Farm Business Management. The content suggests that it has been developed with the needs of practical Advisers in mind, though the programme statement of major topics does not clearly indicate which management skills are actually taught, and how these relate to the present socio-economic structure of farms and their production systems in Lithuania. The content is stated to be business management, management of services, project management, management organisation, theory of organizations, communication behaviour, management psychology and extension psychology. A useful linkage with practical farm management issues is made through contributions to teaching at the University made by staff of the Lithuanian Agricultural Advisory Service.

Involvement of the Department of Agricultural Economics at the Faculty of Agronomy, University of Zagreb, with the Danish Agricultural Advisory Service in a project to develop the Extension Institute in Croatia has contributed to farm management education as a University interest and subject.

The curriculum problems in Agriculture, for all Higher Education institutions, are how to define and continuously re-define the balance of studies needed to optimise employment possibilities for the students, with the traditional academic demands to develop the levels of general education and rigorous intellectual skills. The demand for agricultural economists is not only expressed at production levels but also in processing and trade businesses and in a range of supporting services, including the agricultural consultancy service. A focus on management (in its fullest sense) and the improvement of farming systems is the basic issue in understanding agricultural production. To place this within the realities of the socio-economic conditions in rural areas, requires a rather broad approach, but may still make it possible to offer this as a satisfying form of specialisation. It would reduce the fragmentation of knowledge that often becomes trapped in the traditional divisions of the subject matter of Agriculture which are made for the purpose of teaching and research.

At the secondary school level (for students aged 16–18 years) CEE countries commonly have a well – developed provision for vocational education, including in Agriculture. Changes to reflect re-structured agriculture are in progress. The previous emphasis in the curricula on large-scale production systems is changing in many schools to more specialised studies that include economics and business management, and develop skills such as of retailing and the use of computers. Hence some of the fundamentals of managing a private farm, and of entrepreneurial behaviour in general, are being developed for the future.

IN-SERVICE TRAINING PROGRAMMES FOR EXTENSION

Training has been used as a strategy by which to establish the new Extension Services, and equip their staff for farm management work with farmers. This strategy was initially implemented mainly through one or two year projects (with EU funding) using the services of Western European trainers employed as short-term experts to assist full-time project managers. The common mode of training has been short, full-time, residential courses with specific behavioural objectives for groups of 20–30 practising or prospective advisers to farmers. The programmes have mainly been lateral in structure, designed to give similar, basic training to relatively large numbers of professional staff drawn from Ministries of Agriculture, Research and Higher Education Institutes and farmer organizations with an Extension function, rather than progressive courses aimed at developing specialist abilities with smaller numbers of selected target

groups of potential trainers. The content of the programmes was mainly aggregate, consisting of farm management techniques, principles of marketing, extension theories and methods of information dissemination, and the management of Extension programmes and organizations. There was commonly some content on national and EU policies for agriculture and agricultural administration. The courses usually included practical exercises and visits involving farmers. There was also some attention given to how to act as trainers of others. The strength of this approach was that training was focused on the immediate skills actually needed by Extension workers, and on developing the confidence and ability to visit farmers and advise on the organisation of their farms as sound production systems and managed businesses. This approach had some tendency, however, to isolate the training given within the projects and restrict its possible wider influence on training and institutions. For example, other in-service training courses using national resources continued to be mainly scientific and technological in character. They gave only limited attention to the economics of the new technology and practices discussed, in terms of input-output relationships and their contribution to overall farm profitability and the management of a business. All professionals who work with farmers need at least a general understanding of how to assess the resources available on a farm, including the farm family and all its income-earning activities, and to be sensitive to credit management and marketing of what is produced.

SYSTEMATISATION OF TRAINING

Following the initial phase of project-based training to establish Extension Services and generate action at farm level, some systematic in-service training programmes have developed. There are good training bases available in various agricultural institutions. In Hungary, Advisers registered by the Ministry of Agriculture and Rural Development are obliged to attend yearly refresher courses, funded by the Ministry. These update the Advisers' knowledge of farm management, extension methods and the available support mechanisms for farmers. All Advisory staff in Latvia must attend seminars and training courses: regional advisers attend them at least twice a year. Training is delivered by specialists from the University, Research Institutes and other organizations. Courses and seminars are used to develop professional skills generally, and for topics of immediate relevance and concern. However, only a few senior staff of the Advisory Centre have been trained as trainers for in-service farm management courses, and hence the training tends to be aimed at production and technological aspects of farming. In Lithuania, systematic training is organised through one day or longer courses and seminars based on a continuous assessment of needs. The training is concentrated in March-May and October-December to coincide with preparatory periods for more intensive work later with farmers.

A structured approach to in-service training in farm management has also been developed in Croatia, focused on the increasing demand by farmers for advice on credit (loan management) and the marketing of products. The existing skills and competencies of the Extension staff selected for training were first analysed. The course content was then based on a farm business plan, using the available technical and economic data, and gross margin calculations. The actual training involved both farm extension staff and managerial staff at senior levels in the Extension organization. This is an important principle: senior staff can create and support a working environment (including with resources) to facilitate the deployment of newly acquired skills and knowledge at service delivery level. A second important feature was that the training combined the development of expertise in farm management with the extension methods skills needed for working with farmers. A similar approach is now used for training to develop investment planning by farmers. Advisers are trained to produce written materials for use in lectures and courses for farmers, and to give advice to individual farmers.

6. STAKEHOLDER NEEDS ASSESSMENT

THE NEEDS AND INTERESTS OF FARMERS FOR FARM BUSINESS ADVICE

Evidence of increasing farmer demand for help with farm management advice has already emerged in this review. The transition to (mainly) privately owned farms with their own land titles, and from production at centrally planned levels to production as a consequence of market demand and the profitability of farm enterprise, creates new concepts of what constitutes a farm and what is involved in managing it. The pains suffered during sharp declines in production, typically during 1990–1995, indicated to many what can hurt in commercial, competitive agriculture and what kind of treatment is needed. The challenge has been to assemble and deliver information and advice to help producers to develop entrepreneurial skills, understand marketing, and become more efficient in the use of all their resources. The desired outcome is not only increased farm incomes but an efficient agricultural industry within a diversified rural economy.

In some cases the value attached to information and advice is reflected in the willingness by farmers to pay for them. A study in Latvia in 1996¹⁸ (already referred to) suggested that only 24.7 percent of farmers were hostile in principle or practice to paying for advisory services, and that some 90 percent regarded the national Advisory Service as an institution essential to Latvian agriculture. In 1999, 25 percent of the budget of LAAS came from fees paid by farmers. Although it is possible for farmers to make a substantial contribution to decisions about what kinds of programmes to conduct, through the Farmers' Federation, it is difficult to find direct evidence of the shape of farmer demand for farm management advice in Latvia. Assuming that Advisers are responding at least to some extent to the requests that are made to them by farmers (rather than offering what the Advisers judge is needed, or can offer), the major demands for information by farmers are on sources of inputs, subsidies, taxation and prices. There is a specific demand for advice and training on farm production planning, gross margin calculations, loan applications, tax accounts, legislation and farm accounting databases. One of the highest priorities is for bookkeeping; another is making business plans for loan applications.

Farmers in Croatia have been involved in the preparation of training materials for use with them, by suggesting the subjects and kinds of information needed. As a result, the stated priority areas were the recording and analysis of economic data (gross margins) to assess the financial outcome of specific crop production and dairy production systems. Demand for advice on credit, marketing and investment planning is growing. In general, most of the farmers' interests and questions are said to be related to credit, selling products, and improving incomes: a hardly surprising situation.

More detailed analysis of farmer demand for farm management and business advice is available from Hungary. Demand for this kind of service became prominent in 1999, related to the introduction of free, group extension programmes; by this time, the experience of farmers of using production technologies made it apparent that better financial management was the key to profitable farm production, especially on the larger farms.

In a study of courses demanded by very small–scale producers (with yearly incomes below one million forints) production–based courses were ranked first, second and third. These were followed (fourth equal) by policy, rural development and E.U. information. Production and technical subjects, at sixth, seventh, eighth and ninth were ahead of management (economy, taxation and finance) which is actually in least demand. The conclusion seems to be that such very small–scale farmers seek to understand what the “farm” should be, as a functioning entity now and in the future, before their interest is concentrated on how it

18 Tisenkopfs T. and A. Zobena. (1996) Agricultural Advisory system in Latvia. Riga.

should be managed financially. Arguably, this is to put the cart before the horse, if this equine metaphor can be used to describe the power of farm business management. Larger scale farmers responded in a different way. From a choice of 17 areas of possible help from consultants, farm management topics were ranked 5,7,9,10,11,13 and 14. There was a strong subdivision of the topics used to rank farm management and this may partly explain why farmers gave the highest rankings to the broadly stated technical topics of making applications, plant protection, crop production and animal breeding. However, there is other evidence to suggest that production problems are still perceived as very important. In decreasing order of the priority of work done by consultants, the farm management topics requested were enterprise improvement, making business plans, market information, finance, taxation, strategic planning and public accountancy. The request for help with strategic planning (3.6 percent of the total requests) may be significant: it suggests that the larger scale farmers are becoming concerned with longer term viability and new production possibilities in future on their farms, and this may be a very important area of development in future for farm business management advice.

A study in Hungary¹⁹ suggests that the level of farmer demand for information on production and farm management is affected by their level of formal education. The highest demand by all farmers was for financial and taxation knowledge: 55 percent of farmers with less than complete elementary education placed this first in priority, as did 83 percent of those with University education. There is considerable evidence that education has less effect in satisfying demand for knowledge than in creating awareness of the value of knowledge and a desire to acquire more. Marketing knowledge was the second priority, and this rose from 55 percent of those with the least formal education to 72 percent of those with the most. The pattern was repeated for legal knowledge and banking knowledge. Overall, it is clear that in this study the demand for farm business management knowledge was placed firmly above the need for information about production. It is worth noting that environmental knowledge was not greatly valued: it was placed 7 or 8 in priority (from 9 items) by most farmers, though a little higher (6) by producers with University degrees. These results indicate, again, the need for a broad interpretation of what is implied in the act of managing a farm: the ability to use farm management techniques (such as gross margin calculation) is not enough for a farmer to have a well-managed farm.

EXTENSION WORKER NEEDS AND INTERESTS FOR FARM BUSINESS ADVICE

Direct evidence of Extension worker interests is available from a study in Hungary (1999)²⁰ of topics requested by consultants for their training. As with farmers, demand for more knowledge of specialised production technology was lower than for farm business management (the requests were made by 23 percent and 50 percent of the consultants, respectively). A package of training consisting of legal and business management topics, together with the appropriate extension methods for information transfer and consultancy work, would address the consultants' views that most of their problems originate from lack of management and professional knowledge. Much (74 percent) of the new knowledge gained by consultants was obtained from agricultural magazines and brochures; technical books and farmer publications were also quite important. 49 percent of the consultants questioned had obtained help from farm management experts. Study trips, shows, conferences, radio and television were little used, by only 2–9 percent variously. Computer databases were little used for new information.

19 Kocsondi-Lakner (1997). Kozari J. (1999). A mezogazdasági szaktanácsadás rendszerének kialakítása Magyarországon. In GATE. Godollo 30-38 pp.

20 Kozari J. (1999). A mezogazdasági szaktanácsadás rendszerének kialakítása Magyarországon. In GATE. Godollo 30-38 pp.

In Croatia, Extension workers see their training needs as mainly for more specialised study of specific aspects of farm economics such as investment, credit and production analysis. This is needed to enable them to give more complete and specific advice and recommendations especially to the larger-scale, commercial farmers with specialised farming systems.

EXTENSION DECISION-MAKER VIEWS ON IMPROVING FARM BUSINESS MANAGEMENT ADVICE

These views tend to be focused on how to strengthen the Extension Services by a process of organizational development, as a pre-condition to enable them to increase the impact of their farm business management programmes. More trained generalist Extension staff for work with farmers, and more specialist support staff are seen as major needs. There is an emphasis on the use of individual Extension methods for giving farm management advice, and also some recognition of the value of group work with farmers. A combined approach to management through better farm production together with ways to achieve greater profitability is favoured. In achieving this, credit and marketing (i.e. financial management) are seen as key areas for improvement, and for these to depend partly on a good policy framework at national level, and partly on reliable bookkeeping and data collection and recording at farm level. Extension work on these topics can then be developed as effective means to good economic decision-making.

Adapted approaches to farm management are seen as necessary to address the separate needs of private farms of varying sizes, company farms, new cooperatives (non-government) and household plots or very small areas of land which are not (or not fully) integrated into the commercial sector of agriculture. This range of potential clients and customers, for whom a scaled system of free, subsidised or fully charged services has been established, constitutes a challenge to the efficient deployment and management of the Extension resources available. Decentralisation of the organization and local farmer participation in all aspects of Extension programmes are seen as important ways to achieve efficiency. There is an intention to move towards higher levels of self-financing arrangements for Extension, and many farmers appear to understand this. Information technology for extension work is being steadily developed, and although training support has made heavy use of projects and invited specialists from Western Europe, an indigenous training system is developing.

Emphasis has been placed (for example in Lithuania) on Extension programme planning, implementation and monitoring, and on some basic aspects of organizational management such as personal work planning, job descriptions, and control of Extension activities. Monitoring reports from regions are aided by computer programmes, and the firm managerial direction that this implies is balanced by the regular involvement of farmer organizations in planning the Extension programmes.

Extension services in CEE have been open to ideas from other countries (including those in Western Europe) to supplement their (albeit limited) experience, and this has created an iterative process for the development of farm management programmes. There is a continuing need for Extension decision makers to explain their potential to help farmers, and the specific services they can offer to the farming communities and other organizations with which they can usefully interact and collaborate.

Decision makers in Extension Services place some priority on improving their linkages with the sources of information that are essential to them, such as research institutes and Universities. In practice, this is partly a matter of organisation to facilitate fast and effective access to new research work, and partly the provision of training courses at which Extension staff can think through how to develop innovations as services to farmers. One linkage mechanism used in Western Europe in the past was to include selected Extension personnel in the research teams, where they acted as liaison and communication staff. The future use of I.T. within the agriculture services may make direct human linkages less crucial, and focus more on the use of databases for farm management information. As farming develops rationally and commercially in CEE, the need for an effective information system for farm economics is perceived also to increase. This review has found evidence that this is already happening. In Hungary, for example, although

only 5 percent of the available consultants are farm management specialists they are each handling 6–8 times more contracts than their counterparts who advise on production technology.

The farmers' needs for consultancy services are perceived by Extension Services to be for enterprise development within business plans, marketing, finance (including taxation), and strategic planning. These appear to fit quite well with how farmers and local extension staff also perceive the situation. Interest should now focus on how (i.e. the necessary conditions and methods) to deliver to farmers the information needed, using the resources available in the best way; and this requires both the continued analysis of the practical experience gained from farm management extension work, and more research studies into the problems faced.

7. CONCLUSIONS AND RECOMMENDATIONS

OVERALL RECOMMENDATION

What has emerged from this review is that there has been, in general, a heavy investment since 1990 in training as a component of projects aimed at establishing the organizations and working methods for new Extension Services in CEE. The providers have commonly been the Advisory Services in Western Europe, often on a country to country basis. For example, ADAS in the UK made substantial training inputs to Lithuania, and the Danish Agricultural Advisory Centre to Latvia. In smaller countries the training has involved nearly all the available Extension staff; in others it has been more patchy. The training inputs so far have tended to be general and dual or multi purpose with a strong component of farm business management, which has concentrated on the basic skills and techniques of analysing farm performance. Some of the training was specifically aimed at Extension staff, with only a limited farmer orientation. Some was training of Extension staff in courses with a content that was also applicable to farmers. Other courses were intended to train Extension staff to train other colleagues, though this sometimes created credibility problems. The training was often limited to institutionally oriented courses for the emerging Extension Services, or was aimed at sectoral development such as livestock enterprises within a farm business. What is needed now is a more focused attack specifically on farm management, to include a greater range of concepts (rather than techniques) that will enable farmers to function more fully as managers of the land they own or lease.

The overall recommendation, therefore, is to create a stronger support system for Advisers and farmers through which to contribute to farm management work to develop new ways of thinking about farms. The support system is currently dominated by the individual method of giving farm management advice to farmers, and this is too narrow. The support system is discussed first as points of entry to the system, and second as the arrangements and materials needed for its construction, and the priorities.

ENTRY POINTS FOR SUPPORT TO FARM MANAGEMENT IN EXTENSION PROGRAMMES IN CEE

These are ten points in the proposed support system at which significant and useful action can now be taken. They are as follows:

- 1.** Standardisation and rapid diffusion of recording materials (forms, spreadsheets) for use on different categories of farms. There is experience of trial products and their use in many CEE countries, by various agencies. These materials should be brought together as national collections, and then discussed in an international forum so that a small group of farm management specialists can draw conclusions about what appears to be most useful, make recommendations and disseminate them and the materials.
- 2.** There are currently relatively few opportunities for groups of farmers to meet together in a structured forum to receive new information and ideas, and exchange experience through discussion and discourse. The early stages of introducing farm management in Western European agriculture often made heavy use of Farmers' Clubs, Farmers' Societies and Farm Management Associations (many versions existed, according to local conditions). These clubs were supportive of individual farmer's actions to improve their management. They gave a social dimension to learning new management techniques, and built an enquiring and enthusiastic culture for farm management within which Extension staff could teach and inspire audiences of farmers and (often) their families. Other informal groups of farmers can be brought together as learning units for farm management and advice, assisted by Extension staff. Group methods could be used more fully to deliver farm management informa-

tion: they are usually found to be more efficient (in terms of staff time) or more effective (in terms of impact on farmer practices) than either individual or mass media methods. They are currently the least used methods in Hungary and Lithuania, and only a little more common in Croatia. Data on Latvia is not available. Where farmer groups have been tried in CEE countries they are reported to give good results: where they are lacking, their absence has received adverse comment from experienced Advisers. The development and use of farmer groups is recommended as a significant component of the proposed support system.

3. There is opportunity to develop new self-learning materials on farm management (and adapt those that already exist, for example in Lithuania) for use by farmers. The methodology of distance learning is tested and highly developed in other fields. The most useful principles are to design materials for specific categories of learners, and to re-inforce their use with other media such as radio and television and methods such as individual contact with Advisers. They can be developed from existing training and teaching materials using the experience gained by the organizations involved in past projects. There is scope for international collaboration in their preparation, possibly using the Internet as a sharing and informing mechanism. The institutional base for developing these materials need not be in Extension Services.
4. Action to establish strong linkages between University Departments of Agricultural Economics and farm management specialists in Extension Services constitutes another point of entry. Again, in Western Europe a chain of support was provided by selected academic staff with a particular interest in farm management. Such staff were involved in the collection of farm economics data and preparing it for specialist Extension staff, who used it with general advisers who worked with farmers. This gave to the whole process a measure of independence and objectivity in the collection, analysis and use of data. In practice, two chains may be necessary, one for work with fully commercial farmers and the other with a more socio-economic bias towards subsistence, small scale, part-time farmers, and those only marginally active in the market economy for farm products. This kind of liaison activity could serve as a structure for:
 - Preparing and providing regularly updated data and information on the financial management of farm enterprises and whole farms, based on surveys. IT can assist this.
 - Giving formal training in the use of farm management analysis and planning to groups of Advisers.
 - Assisting individual Advisers by accompanying them in coaching visits to farmers. This is an important method of training in farm management.
 - Helping to establish pilot farms on which to demonstrate the use and value of farm management.
 - Preparing materials based on actual accounts and their analysis for use in training courses run by various agencies.
 - Help to establish networks of local farmers and farm management advisers who have been successful and have enthusiastic experience of farm management, and relate this work to the proposed expansion of farmers' clubs and associations. The aim will be to develop the ability of those in networks to use farm management techniques by discussing their experience and adding new knowledge.
5. Develop a structure of specialist farm management advisory teams at regional (and equivalent level), for whom advanced training will be needed. The teams will have the tasks of considering what kinds of farm management problems exist within the region, the needs for Extension work and how to promote this, and the appropriate methods for delivering to farmers and advisers information for use in improving the organisation and management of farms. A policy framework will be needed. For example, a categorisation of needs might be:
 - State, cooperative, company and large private farms: in general, the normal concepts of farm management (enterprise and whole farm), business plans, credit management, mar-

keting (prices and locations) and development of local language software for PC use.

- Small farms: book keeping for farm family use, tax requirements, the use of diversification and other sources of income in farm organisation.

- Household plots: the optimisation of use and commercial development.

6. Expand the production of leaflets for farmers, aimed at progressively developing the subject of farm management, produced by specialist advisers. The leaflets should explain a simple system of economic analysis of a farm business, and how to use simple accounts and records as a guide to better management of a farm as a business, in relation to farm types and systems. More specifically, the useful sequence of content is: (i) data recording, (ii) gross margin analysis and farm planning, (iii) cash flow and financial planning, (iv) balance sheet and investment appraisal, (v) asset auditing, (vi) worker management and development (skill levels and competencies). Such leaflets can maximise the linkage and interaction between farmers and Extension staff.
7. Continued training in farm business management is needed for all general advisers who work with farmers, and for a smaller number of support specialists. Training can usually make only a relatively slow contribution to progress, because of direct costs and opportunity costs when extension workers are temporarily withdrawn from service to farmers, and it is necessary to have a career development plan for individual advisers and a corporate strategy for farm management training for the Extension Service as a whole. Special consideration is needed for ways in which the training of independent consultants can be advanced. The content of training courses for farm management advisers will normally include farm production planning, gross margin calculations, tax accounts, legislation, farm accountancy data base, loan applications, capital management, profit and loss statements and balance sheets, cash flow, business plans, forward budgets, and investment feasibility and plans.
8. Annual farm management meetings or conferences are needed in which progress can be reviewed, new needs identified and experience shared. Such meetings became major sources of improvements for advisers in many West European countries. They appear still to be underrated in CEE compared with meetings about new production systems or technologies.
9. Another entry point is the provision to farmers of marketing information, for example on locations and prices. Farm management training has often shown the weakness of markets: for some farmers in CEE there is little choice of outlet. Market information has been traditionally dealt with by short, regular radio broadcasts for the major commodities and markets. Extension Services can also produce regular information sheets based on data collected by telephone or by electronic mailing systems. The precise mechanisms will depend on local conditions, but until farmers can develop their own systems for gathering market intelligence it can be organised as a rural community Service, where needed at present.
10. The final entry point to be identified again concerns the mass media, for example newsletters and newspapers, or Agricultural Shows perhaps with bank sponsorship. These create an information and knowledge environment in which current needs and likely future developments can be progressively introduced and explained to farming audiences. They can develop awareness of the longer term, and often more complex and intangible, issues such as the integration of profitable with sustainable farming, rural development, strategic farm planning, national and EU policies for agriculture and how farmers and farmer associations can participate in the development of farming. In some CEE countries this is already being done: in others, it remains a challenge to find interesting and comprehensive ways in which to engage farmers in thinking about how their activities are likely to change in the future.

The development of the support system recommended here, through the ten entry points identified above, will have an effect in reducing the pressures that are widely reported to exist on the Extension resources available. These pressures on Extension staff derive from the varied backgrounds of the farmers who need

help, involvement in solving disputes at farm level, the need to attend training courses and also acquire more technological information, to promote the value of the Extension Service among farmers and to help develop rural communities. In many situations, the Extension resources are spread very thinly. If a critical mass of farm business management advice can be created, the sustained impact that this will make possible should lead to a dynamic for change that can be sustained over time by the shared experience of farmers and Extension workers.

PRIORITIES FOR FAO MATERIALS DEVELOPMENT, TRAINING AND TECHNICAL SUPPORT

Having extracted from the review what is now needed to develop farm business management through Extension Services in CEE, the final steps are to organise these interventions into a strategy and arrange them into the priorities for action. The suggested strategy is to, first, strengthen the provider and user ends of the support system and then, second, put in place other actions to link the providers and users in order to create an effective pressure for improvement. The proposed priorities are therefore:

1. Create and /or strengthen liaison linkages between University Departments of Agricultural Economics and Farm Management Specialists in Extension Services in CEE. The functions are described in Section 7 of the review. The careful identification of the academic personnel to be involved, their detailed briefing and arranging their support by senior management of the Universities and Extension Services involved can be facilitated by a T. A. arrangement for assistance, for example, in the four CEE countries covered in detail by this review.
2. Develop farmer Groups, Clubs. Association and Societies (as appropriate) in pilot areas in the four countries covered by this review. The functions are described in Section 7 of the review. A facilitator, through a T.A. arrangement, is needed for this work.
3. Make national (in the four countries) collections of informative and training materials for review, selection of best practices, adaptation and transfer to users within countries, and to other countries for possible similar action.
In order of priority, the materials needed are:
 - (i) awareness creating leaflets on farm management.
 - (ii) farm recording and accountancy forms.
 - (iii) self – learning and teaching materials for use by farmers, on the basic techniques of farm management.
 - (iv) market information sheets for specific commodities and categories of farmers, on an area basis.
 - (v) advanced training materials for farm management specialists; adaptation of existing European published materials.
 - (vi) booklets and brochures outlining issues for the strategic (longer term) management of farms.

This work on materials would be conducted by small selected groups of Extension staff, assisted by other experienced writers as necessary, with guidance from a T.A. appointment to manage the work. The details are discussed in Section 7 (pages 50–1 and 53–54) of the review.

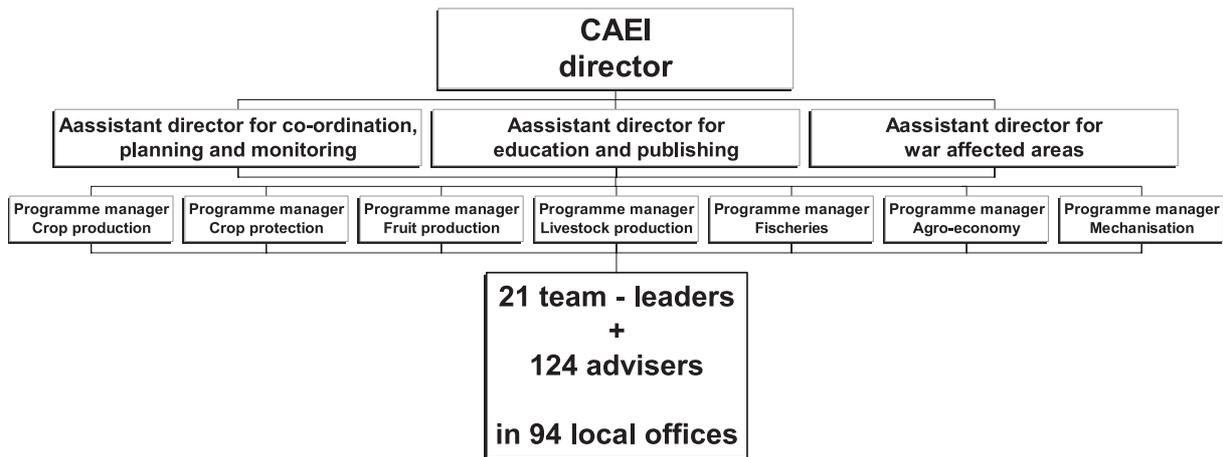
4. Organise an Annual three day Conference of senior Farm Management Advisers in the four countries discussed in detail in this review, for three consecutive years, to stimulate and guide further developments in the countries. It is assumed that national meetings will either precede or be encouraged to follow these meetings. The organisation can be arranged through FAO representative by local organizations. Logistic support (and funding) would be required. This item is discussed in Section 7 (page 53) of the review.

5. Support for the formation of teams of farm management specialists at regional level within the four countries, as an extended structure of the University – Extension link proposed as the first priority. This could be facilitated by a T.A. appointment as a second phase of the link proposal. The work of the proposed team is discussed in Section 7 (page 52) of the review.

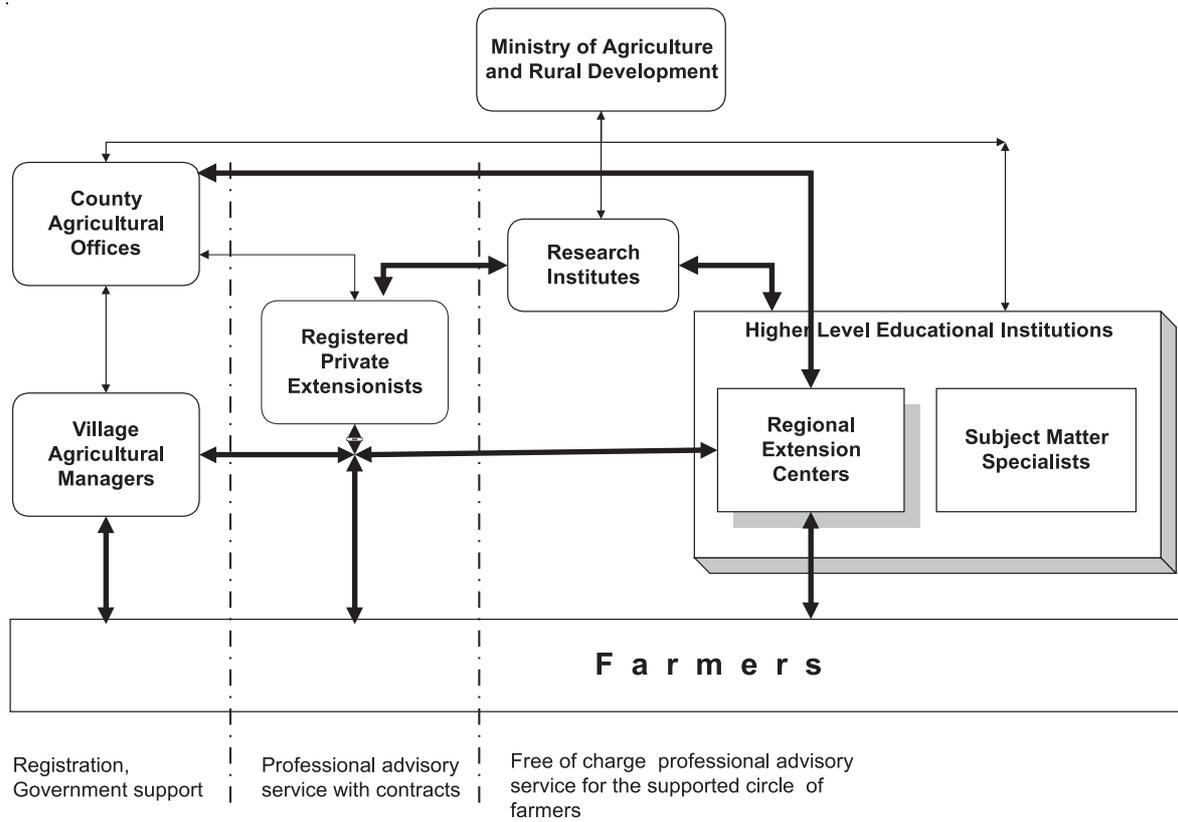
CONCLUSION

These proposed actions and the priorities are closely related to the constraints that have emerged in the review. They build on the achievements that have been identified. Together they constitute interactive recommendations to improve the situation, and have been designed as a support system for the work already in progress. The aim is to produce a cohesive and sustainable strategy to transform the management of CEE farms from production to productivity in their focus, and from custom to objectivity as their approach to business. The strategy is to concentrate attention and effort on delivering farm management information and advice to farmers, and to strengthening the opportunities and ability of farmers (especially those with small to medium size family farms) to receive, act on, and benefit from advice on the better organisation and management of their farms.

Structure of the Croatian Agricultural Extension Institute

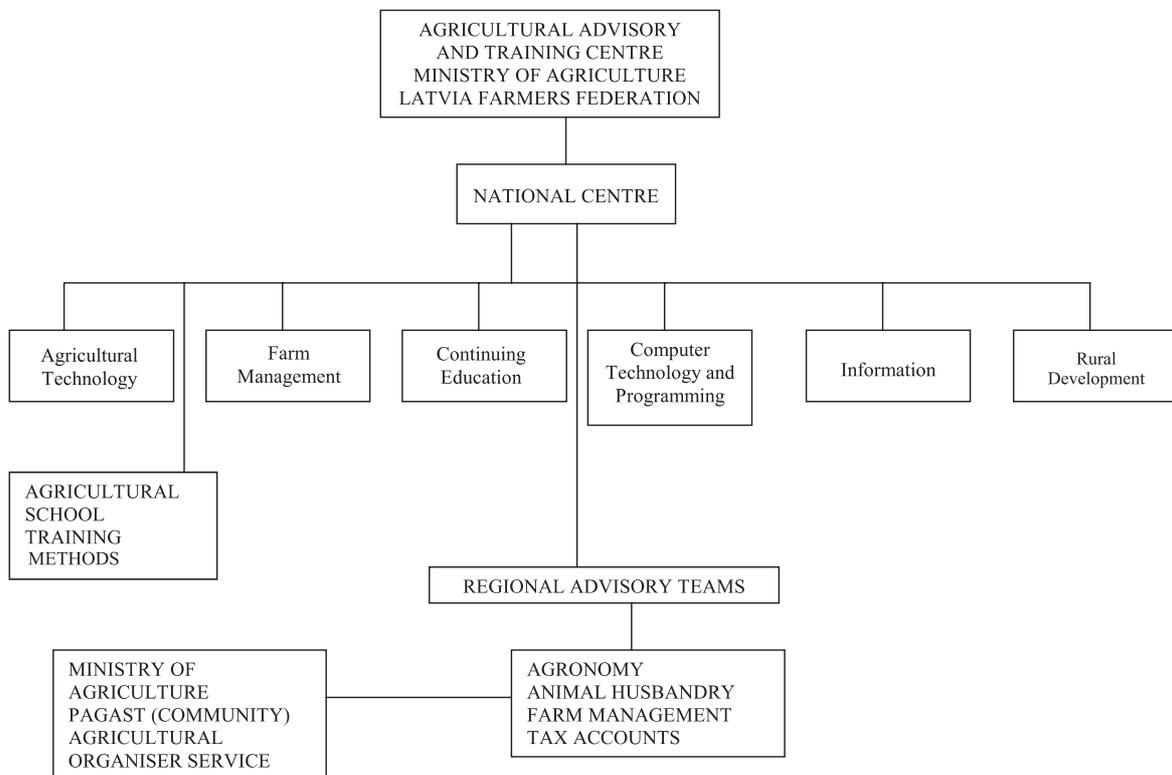


Structure of the Hungarian Extension System



Agricultural advisory system in Latvia

Agricultural advisory system in Latvia



MANAGEMENT SCHEME OF LITHUANIAN AGRICULTURAL ADVISORY SERVICE

