

Principles of Agricultural Extension Applicable in Hungary

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Abstract

The objectives of policy and production rationalisation in Hungary require the widening of a market-economy based on private property. The privatisation in progress these days concerns, among other things, agriculture. Furthermore, agriculture today is the most privatised branch of the national economy.

New land-owners find themselves in basically new circumstances and changed conditions. Obviously, they cannot return to the farming methods of 40 years ago, as new breeds and varieties promising higher returns and machinery multiplying the productivity of work as well as new management methods have evolved. As more changes take place, the question arises: are the necessary preconditions at the disposal of farmers undertaking private farming? The answer, in most cases, is an unequivocal: No.

We can make our farmers competitive internationally if we ensure equal (or better) circumstances for them compared with those enjoyed by their competitors in the market. To provide advantageous circumstances, considerable aid can be set up in an extension system supporting farmers (mainly by ensuring know-how and information). In this connection, I consider the answer to the following question important: What principles should be validated in order to ensure the effective functioning of extensionists?

In formulating the right answer, we should take into account our traditions, rooted in the distant and not so distant past, and our present possibilities. It is also expedient to study the experiences of countries with well-developed agriculture and their models giving information on advisory systems. Everything should be done to avoid the paths which have not served the majority well, and paths should be followed which have helped them to achieve success. If the principles are correctly defined, several paths can lead to success. In my opinion, the primary question is not what kind of extension system should evolve in Hungary, but what preconditions should be provided to enable extensionists to work efficiently.

In order to answer the question, I have aimed in my research to make recommendations concerning the principles to be introduced in Hungarian agricultural extension on the basis of foreign practices, taking into account Hungarian traditions and present possibilities.

From the beginning of our research, I have had to face the fact that due to the lack of relevant literature and experience in Hungary, I have been able to rely only on foreign sources.

Between 1992 and 1998 I managed, after studying their literature, to get to know the very different extension systems of Holland, Denmark, Ireland, Scotland, England, Finland and Austria, as well as to learn about the approaches used in other, mainly European, countries, the United States and Australia through consultations and discussions with visiting experts from the relevant countries.

By way of supplementary research, I have collected all accessible information related to the international practice of agricultural extension. I have asked for and received data from the Food and Agriculture Organisation of the United Nations (FAO), from the World Bank, from USAID and from other international organisations involved in supporting agricultural extension. I acquired data directly from the extension offices and from colleagues in the departments of extension of agricultural universities visited. Thus, in the course of my work, I have managed to collect, process and evaluate data relating to 115 countries.

In the course of the statistical and professional evaluation of the data, it emerged that 82 countries operate meaningful agricultural (rural) extension systems. I used only the data of the 124 more important extension organisations of these 82 countries. I considered an organisation important if it employed more than 20 people.

Furthermore, I received considerable assistance from the participants of the XI Seminar of European Extension Trainers held in Denmark from 29 August to 5 September, 1993. Taking advantage of the situation where all the internationally acclaimed researchers, teachers and experts of agricultural extension were present at the same time and in the same place, I asked them to fill in a questionnaire. I used the answers, first of all, in working out the steps needed to formulate an extension system and in drawing up a list of the more frequently committed mistakes.

In the course of my study tours abroad, I have always put great emphasis on getting familiar with the opinion of farmers concerning extension. About fifty persons farming in various European countries gave me their opinions (criticism) during these personal interviews. Thus I had sufficient information for an evaluation of this kind too.

In the course of analysing extension systems, I took into consideration laws of systems theory. On the basis of this, I evaluated the following more important elements of extension systems:

- extension policy, its levels and influencing factors;
- agricultural knowledge and information system;
- primary target-groups of extension organisations;
- fields of extension;
- the organisations of extension, their structure and alternative ways to finance them;
- approaches of agricultural extension;
- methods of communication used in extension;
- factors influencing the number of extensionists.

An analysis of the Hungarian knowledge and information system (AKIS in what follows) was carried out by the RAAKS (Rapid Appraisal of Agricultural Knowledge System) method.

Main findings of the research

- 1 . In the course of my investigations, I have met several versions of the definition of extension. Even internationally recognised authors have been able to describe the concept only in a multiply complex sentence. Depending on the element of extension emphasised, and depending on the given country, the concept of extension will be different. Considering this, I did not aim to create a new definition of extension, but defined the scope of the tasks that should be undertaken by extension in Hungary. In Hungary, extension should be a service that helps farmers to obtain the newest adaptable information through effective communication methods.

2. Extension, considering its historical origins, is the same age as the initiation of social cohabitation and market production. Its development extends from simple gaining of experience to scientifically based information transfer.
As a result of my investigations, it became obvious that extension systems operating at present are the results of a comparatively long historical development adjusted to the needs of farmers and are, at present too, developing dynamically according to expectations.

3. The roots of extension in Hungary can be traced back to the middle ages. We can be proud that Hungary was one of the first countries, not only in Europe but world-wide, to organise agricultural professional training and related extension. In Hungary, the changes in the aims, methods, and structural set-up of practical extension can be followed from the middle ages up to these days. Analysing these changes scientifically, it became obvious that our predecessors always carried out activities suited to the age and aims appropriate to the time. Their results give good reason for us, in forming the new extension system, to take into consideration the experience of our extensionist predecessors.

4. In order for the agricultural producer to produce marketable commodities, it is necessary for a wide breadth of information. To obtain ever-renewing knowledge, various channels and systems of information can be used. Together, these can be called a knowledge and information system.

Investigations into systems in the countries I have visited, and detailed analyses of such systems, have shown that an agricultural knowledge and information system is a combination of people, institutes, production undertakings and other organisations which formulate, carry, transfer and utilise agricultural knowledge.

5. I have come to the conclusion that in the countries studied, efforts are being made to provide a full scope of information, to make it easily accessible and to ensure objectivity for those working in agriculture.
6. Having evaluated present Hungarian knowledge and its information system, it is clear that in the past decades the sources of information served large- scale farms. Accordingly, in agricultural education and research, considerable attention was paid to large-scale farms and their management, but hardly any dealt with small enterprises. Small farms, integrated by large scale farms, often obtained information only in a distorted form. One of the most important tasks in the coming period is the renewal of knowledge and information systems, using new methods and instruments and, most of all, adjusting them to the needs of private farmers.
7. In countries where an extension service operates alongside on agricultural policy, there is also an extension policy. On the basis of analysing such policies country by country, it has been found that an extension policy is a factor that influences basic tendencies, requirements and conditions of social development according to the needs of farmers. Extension policy takes effect, first of all, at national and regional levels.
8. In extension, various approaches are in general use. The term 'approach' covers the essence of the style and philosophy of an extension system. In my view it is practical to study the approach of extension in order to establish the extent of the participation of farmers in decision making related to extension activities. On this basis, approaches can be put into three classes: building top-to-bottom, bottom-to-top and an integrated combination of the two.
On the basis of an analysis of international experiences, it can be concluded that in the period of establishing an extension network, the

approach of building top to bottom (initiated by governments) is generally characteristic. Later on, farmers, professionally and politically strengthened, may be able to establish the conditions to take over control and, initiating from the bottom, formulate their own extension systems.

9. Having studied the nine most important approaches widely used in international practice, it has been found that there are many differences in them from country to country. None of the alternatives studied can be adopted unchanged in one given country, in Hungary neither. On the other hand, nearly all the approaches have some basic ideas that can be used to build up an appropriate approach. Due to our special circumstances, it is possible that a Hungarian approach will evolve containing elements not in use before.

10. The various approaches can be used by various extension organisations. Their types and incidence are shown in Table 1.

Table 1. Types and incidence of the extension organisations studied

| Type of extension organisation | Number of organisations | Percentage |
|---|-------------------------|------------|
| Government supported organisations | 108 | 87 |
| From among them | | |
| Ministries of Agriculture | 100 | 81 |
| Universities | 3 | 2 |
| Parastatal organisations | 5 | 4 |
| Non-government organisations (e.g. farmer associations) | 10 | 8 |
| Private, profit-oriented organisations | 6 | 5 |
| Total | 124 | 100 |

Source: private tabulation and Global Consultation on Agricultural Extension . FAO. Rome, 1989.

On the basis of the evaluation of the 124 studied organisations, it was found that 87 per cent of the extension organisations are maintained by governments, the majority of which (81 per cent of the total) are directly under the control of ministries of agriculture. Furthermore, it became

clear that in countries where there is only one organisation to act as an advisory service, it is nearly without exception operated by the government. Where there is more than one organisation, one of them is always government controlled while the others are run by private organisations.

11. On analysing several organisations, it became clear that the structure of extension organisations is so different that even categorising them is impossible. Their supervision is carried out by ministries, universities, farmer associations or private enterprises. Their structure can consist of two, three or more levels.
12. According to international experiences in countries operating extension organisations, about 0.5-6.0 per cent of agricultural income is spent on extension. In the course of these investigations it was seen that there is a close correlation between finance and the general line of policy. Questions related to extension that, on the surface, are of a technical-financial nature, raise important questions of agricultural policy.
13. Extension organisations in the countries studied cover their expenses from the government budget, membership fees and prices of services. Investigating their proportions, it seems that in well-developed Western-European countries, the government is gradually decreasing support, thus shifting emphasis to self-supporting services and privatised systems. Most governments are forced to take economic points of view into consideration in carrying costs of extension. Furthermore, in industrially well-developed countries, the proportion of the agricultural population and, as a result, its political influence is steadily decreasing. Accordingly, they can represent their interest to a lesser degree. It should be noted, however, that in none of the countries studied has government subsidy been completely abolished. Most countries want to change the present situation in 40 to 80 years time.
14. As a result of processing data from literature, it can be stated that extension inputs are recoverable. Besides, the role of extension should not be regarded as an activity merely helping to improve yields. These services should play a fundamental role in adjusting offer to the demand of the market and in keeping agricultural income at an acceptable level.

Money should be spent on this even if we know that the result of the inputs will be felt only in the long run. Accordingly, the official or semi-official financing of extension is indispensable.

15. Extension organisations may, depending on their aims and founders (financiers), help various groups of farmers. According to my investigations, the scope of target-groups supported can be very different according to geographic regions. Table 2 shows the primary target-groups of the extension organisations studied.

An analysis of the data shows that in less-developed regions mostly subsistence farmers and small producers are supported, while in more developed regions market producers are given preference.

Table 2. Primary target groups of extension organisations studied from the point of view of resources and time used

| Target-groups supported | Africa | Asia Australia and the South Sea Islands | Europe | Latin- America | North- America | Middle East |
|--|--------|---|--------|-------------------|-------------------|----------------|
| | % | | | | | |
| Bigger market producers | 3 | 7 | 42 | 9 | 23 | 6 |
| Smaller market producers | 17 | 29 | 27 | 33 | 25 | 25 |
| Farmers contracted for the production of one product | 26 | 17 | 5 | 24 | 1 | 34 |
| Subsistence farmers | 31 | 28 | 2 | 18 | 1 | 14 |
| Women farmers | 7 | 3 | 3 | 5 | 1 | 9 |
| Ladles farmers | 1 | 4 | 1 | 2 | 1 | 5 |
| Young farmers | 8 | 6 | 5 | 4 | 4 | 2 |
| Rural youth | 2 | 2 | 2 | 1 | 12 | - |
| Homemakers | 1 | 2 | 4 | - | 9 | 1 |
| Other groups | 4 | 2 | 9 | 4 | 23 | 4 |

| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
|-------|-----|-----|-----|-----|-----|-----|

Source: private tabulation and Global Consultation on Agricultural Extension . FAO. Rome, 1989.

16. Due to the efforts of privatisation, the proportions of the various forms of farming characteristic of the past decades are changing considerably in Hungary.

In my view, the Hungarian extension system should not define its target groups on the basis of differences in the form of farming, but by taking into account the level of training of farmers whatever form of farming they follow. Professional training and production experience, up to now have made known only a narrow field of farming to those working in agriculture. Thus, even diploma or degree holders may have blank areas in their professional knowledge. Accordingly, extension should be extended to all working in agriculture.

17. Whatever field extension should concentrate on depends on what and how diverse the activities are that farmers are involved in and what the level of their professional knowledge is.

On the basis at the data processed, it appears that in countries where untrained farmers are in the majority, extension plays first of all a vital role in providing professional information and training. Where well-trained farmers make up the majority, technology development is concentrated on. In cases where a highly-trained circle of farmers has already been formed, they connect to agricultural knowledge and information systems mainly through the co-ordination of research development.

18. Hungary will need, first of all, specialist-type extensionists. The information service provided by specialist extensionists should include the fields of crop production, horticulture, soil conservation, irrigation, plant protection, animal husbandry, animal health, animal feeding, agro-mechanization, buildings and contraction energetics, agroeconomics, marketing, management and environment control.

19. The extension agent can pass on his 'messages' for the farmer using various communication methods. Among the organisations studied, the majority (71 per cent) prefer farm visits. Next is organising

demonstrations (39 per cent) and office consultations (36 per cent). It is obvious that these organisations use mainly methods of personal and group communication, while the role of the mass media, presumably because it is less efficient, is smaller.

20. In the course of investigations, no connection between the methods of communication applied and the geographic region has been found. Thus it seems that the scope of the methods of communication applied is not country-specific but mainly dependant on the professional ability of the target-group supported.

In Hungary, at the time of starting up extension or involving new farmers, personal contact may well prove to be the most practical method. Included in this, visiting and receiving farmers on a regular basis can be recommended. As the number of farmers requiring extension services grows, group methods like lectures, courses or demonstrations can be introduced.

21. According to FAO statistics, extension organisations all over the World employ more than 540 000 people. In these figures, the proportion of extension agents is 60-75 per cent. Specialists also represent a considerable number: 10-20 per cent (in North-America 30 per cent). Concerning the number of other personnel supporting the work of extensionists (working in supervision and administration), it is difficult to generalise, since it not only depends on how well developed the institutional background providing the supportive information (e.g. computerised data service, laboratory facilities etc.) is, but also on the role the supporters play in extension work.

22. On the basis of data derived from professional literature and study tours undertaken, it can be concluded that the number of extensionists is influenced by the number and knowledge of the clients, the area managed by the extensionist, the degree of diversification of agriculture, the size of farms, the logistic possibilities of the extensionists, their experience and the scope of the methods applied.

The number of farmers and the area of arable land falling to one extensionist is demonstrated in Table 3.

FAO statistics prove that from the point of view of the number of farmers falling to one extensionist, North-America and Europe are in the most favourable position. In these regions, one fifth of clients (300-500 farmers) go to one extensionist of that in the rest of the World (2000-3000 farmers).

Considering the number of farmers and the area managed per extensionist in Hungary the European and North-American figures could be desirable.

Table 3. Number of farmers and area of managed arable land falling to one extensionist according to geographic region in 1988

| Geographic region | Per extensionist | |
|---------------------------------------|-------------------------------|---------------------|
| | farmers* (N ^o) | arable land (ha) |
| Africa | 1800 | 2240 |
| Asia, Australia and South Sea Islands | 2660 | 1075 |
| Europe | 430 | 3720 |
| Latin-America | 2940 | 3980 |
| North-America | 325 | 19440 |
| Middle East | 2500 | 5400 |

* Active farmers

Source: Global Consultation on Agricultural Extension. FAO. Rome, 1989.

23. In order to develop a Hungarian extension system, the Ministry of Agriculture, the institutions of agricultural higher education and the research institutes have taken the first steps. Ministerial decrees concerning the regulation of extension encourage the appearance of independent (private) extensionists. In the present situation of Hungarian agriculture and private farmers, this version cannot be the final solution. An extension network (as a system) is able to lend many sided support to farmers because of its wider range of possibilities. It is therefore a timely task to determine the principles of an efficient extension service.

24. It is recommend to take into consideration the following principles in developing agricultural extension:

- Extension should operate in the framework of a system.
- In developing the extension system our traditions, possibilities and, in addition to the knowledge of our own experts, the experiences of countries with an effective extension system should be taken into account.
- In its activities, the extension system should be a (politically) independent organisation supporting the professional advancement of farmers.
- The Agricultural knowledge and information system should provide a full range of information necessary for effective farming, ensuring easy access and objectivity.
- The extension system should be flexible and compliant with the changing needs of farmers.
- Extension strategy should make it possible to involve farmers in planning and implementing programmes to the greatest possible extent.
- Great care should be exercised in the selection, training and regular updating of extensionists.
- Extension must not be mixed up with other activities (e.g. supervision, statistical data collection etc.)
- The preconditions for the effective operation of extension should be ensured for the long term.

It is hoped that the findings of this research will be useful in the development of agricultural extension policy, the shaping of the extension system, the training of agricultural extensionists and in practical advisory work alike.

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