

# AGRICULTURE IN DIFFICULT CIRCUMSTANCES

*MAATALOUDEN TALOUDELLISEN TUTKIMUSLAITOKSEN JULKAISUJA, No. 57*

**FINNISH – HUNGARIAN – POLISH SEMINAR  
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## AGRICULTURE IN DIFFICULT CIRCUMSTANCES

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**Abstract.** The articles of the publication have been presented in the eighth seminar of Finnish, Hungarian and Polish agricultural economics. The topic was "Agriculture and subsidiary industries in difficult circumstances". The seminar took place in May 2-5, 1989, in Lapland, Saariselkä. The location suited the topic perfectly.

The seminar topic has been dealt with according to special characteristics of the participating countries. Economic factors play a key role in difficult circumstances of agriculture and subsidiary industries. In addition, socio-economic, demographic, infrastructural, environmental and ecological factors as well as natural conditions affect the situation. Consequently, numerous means are required to cope with several problem-areas. Availability of financing and support are among the most important means.

In addition to seminar work, practical introductions of reindeer husbandry and tourism, which represent typical industries of Lapland, were offered.

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**Index words:** agriculture, subsidiary industries, difficult circumstances, Finland, Hungary, Poland, Lapland

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Matias Torvela  
AGRICULTURAL ECONOMICS RESEARCH INSTITUTE  
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**WELCOME TO THE SEMINAR OF FINNISH, POLISH AND HUNGARIAN  
AGRICULTURAL ECONOMISTS AT SAARISELKÄ**

Dear friends,

**Background to the seminars**

At the meetings of the directors of the Finnish, Polish and Hungarian agricultural economics research institutes in the mid-1970s, the question of more regular cooperation was raised. Although agriculture is different in many respects in these countries there are also many shared problems in agriculture and the production of foodstuffs. In Hungary, agriculture is carried out in large units; in Poland, there are small family farms in addition to large farms whereas in Finland, all agricultural production is based on family farms. Conditions for agricultural production are also widely different in these countries. In Hungary, the growing season and other conditions are so favourable that intensive viticulture, and cultivation of fruit and vegetables are common. In many places in Poland, conditions are good for the cultivation of fruit, root crops and vegetables, in addition to agriculture based on field cultivation. In Finland, natural conditions impose marked limitations on agriculture. Varied agricultural production is possible only in southern Finland and in the central parts of the country. In the northern and eastern parts of Finland, agriculture is mainly based on livestock and feed production supplying its needs. Agriculture is also carried out in the northernmost parts of the country, in Lapland. Here the growing season is so short that only very limited production is possible.

So far we have held seven joint seminars. They have mainly dealt with efficient agriculture, problems of agricultural economics at the farm level, the processing, marketing and foreign trade of products, etc. The topics have been discussed from the theoretical point of view and with practical applications. We have been able to choose our subjects so that they have also been of interest outside the above-mentioned institutions. Information concerning our seminars has also reached economists in our neighbouring countries. We have often been asked about the contents and usefulness of our seminars; these questions have not been difficult to answer.

Up to now, the seminars have mainly been attended by agricultural economists. Nowadays the processing and marketing of foodstuffs and the related food economics are closely related to traditional agriculture and agricultural economics. Therefore it is only natural that the participants in this seminar also include food economists, at least from the host country. We welcome you to our seminar.

### **Previous seminars**

The response to discussion on joint seminars of Finnish, Polish and Hungarian agricultural economists was immediately favourable. Practical arrangements started when Márton János, Director General of the Hungarian Institute of Agricultural Economics, sent invitations to the first seminar to be held in Budapest in 1977. Mr Márton János was an active participant in the seminars until his retirement. We wish to send him our warmest regards.

The previous seminars were as follows:

1. Seminar in Budapest, June 7–10, 1977 on the effect of the development and efficiency on the planning and forecasting of agricultural production.
2. Seminar in Wroclaw, Poland, May 24–28, 1978 on milk production and processing.
3. Seminar in Joutsa, Finland, June 11–15, 1979 on the economy of beef production.
4. Seminar in Csopak, Hungary, September 1–5, 1980 on characteristics and means of state income policy in agricultural production.
5. Seminar in Turku, Finland, June 13–17, 1983 on the economy of crop production.
6. Seminar in Mragowo, Poland, November 5–8, 1985 on social and economic problems of income policy in agriculture.
7. Seminar in Eger, Hungary, October 5–9, 1987 on international trade of farm and food products.

This seminar, held from May 2 to 5 at Saariselkä, is therefore the eighth in the series. Our topic is "Agriculture and subsidiary industries in difficult circumstances".

So far the seminars have been successful. One indication is their continuity, another the fact that the directors of the agricultural economics research institutes of each country are present here. It is also a pleasure to see so many familiar faces from previous seminars and a participant representing the Central School of Planning and Statistics in the Polish delegation. This time the participants also include young researchers and female economists, which is a particularly welcome feature.



Markku Vuorikari

Professor Augustyn Wós from Poland (left), Professor Matias Torvela from Finland and Director General Béla Csendes from Hungary are discussing about problems of agriculture in difficult circumstances.

Of the Finnish participants, I would like to introduce Professor Aatto Prihti of the section of Food Economics of the Department of Food Chemistry and Technology of the University of Helsinki. Professor Prihti has taken active



part in the arrangements of this seminar and been of great help in many practical questions and contacts. We are also happy to have a representative of Finland's reindeer husbandry and experts from the National Board of Agriculture. Financial support to this seminar has been granted by the Ministry of Agriculture and Forestry, the Academy of Finland, the Agricultural Economics Research Institute, YIT Ltd. General Engineering and Contracting Company and the Tapiola Group. I wish to thank all of them on behalf of the seminar participants.

### **Why are we here at Saariselkä in Lapland?**

It was decided that the topic of this seminar would be on agriculture and subsidiary industries in difficult circumstances. Discussions revealed that there are various economic problems in farming and the development of rural areas in all participating countries. The problems and problem areas are not unknown in Finland, either. As the organizing country, we wanted to show how farmers and other operators of small businesses live north of the Arctic Circle and describe living conditions here. It is obvious that the livelihood of the inhabitants of this region cannot depend solely on agriculture. Reindeer husbandry, handicrafts and small-scale industries, farm holidays, etc. are amongst the occupations found here. More intensive agriculture is concentrated along rivers and other more favourable areas. It is clear that regions like this need government subsidies. One of the speeches to be delivered here concerns this. It is unfortunate that it is not summertime when you could see how active agriculture and other enterprise is in northern Finland and Lapland.

One reason for choosing this place is that we are proud of Lapland. The scenery is always impressive for us Finns and we like to show it to our foreign guests. Let's hope that we will also be able to see as much as possible of the positive sides of Lapland between seminar sessions.

On behalf of the Agricultural Economics Research Institute, I would like to wish you all welcome to the eighth seminar of Finnish, Polish and Hungarian agricultural economists. I would also like to convey a special welcome to our foreign colleagues.

Augustyn Wós  
INSTITUTE OF AGRICULTURAL AND FOOD ECONOMICS  
WARSAWA, POLAND

**GENERAL FINDINGS OF THE EIGHTH FINNISH-HUNGARIAN-POLISH  
SEMINAR ON AGRICULTURE AND SUBSIDIARY INDUSTRIES  
IN DIFFICULT CIRCUMSTANCES**

(Saariselkä, May 2-5, 1989)

1. Regional differences are not so much, and perhaps not even mainly the consequence of varied natural conditions, which is important for agriculture in particular, but are as well the effect of the past development policies implemented and especially we may see the impact of the maladjustment of the models of agricultural development to the existing conditions of agricultural production. This is also a problem of choosing the proper allocation of the available resources, the selection of production lines as well as their efficient management. Thus policies oriented at the activation of the less developed regions should have their foundations in economic advising at farm level and should also utilize economic mechanisms to balance, to reduce disparities in the standard of living, while admittedly, differences in production programs will persist.
2. The participants of the seminar came to the conclusion that while in the past intensive use of all farmland was a reasonable solution, presently one must recognize cases where agriculture is no longer the only way to land management and perhaps in some regions not even the most important one. It was recognized that the importance of the farming sector is decreasing as an instrument in economic and regional development, in favor of such activities as farm based non-farming activities and business, this including forestry, fish farming, tourism and other recreation. All land must be utilized and managed intensively, the point being to find such uses, whether farming or other, which will correspond to its particular potential.
3. It was common understanding of the seminar participants that rural and agricultural development must be supported mainly because of social and political considerations. Thus regional policies towards the unfavourable conditions and marginal regions would be based mainly on social, not strictly economic policy assumptions. It was stated that numerous reasons are to be found to maintain

the population in such regions, even if this would entail high subsidies. It was a clear understanding that if the population would migrate from such less-favoured area, there would be no possible mode, vehicle for development.

4. It was established basis the experience of Finland, Hungary and Poland that the less-developed regions suffer acute negative feedback effects. These regions find themselves in dire need of finances for development but in fact are capable of producing a relatively small volume – and share of the national income. Resulting from this are the policy and political problems of capital transfers between regions, which must entail more or less acute conflicts.

5. It was recognized that a conflict is experienced between the economic aspects of agricultural development and the social policy needs of the population living in the less-favored areas. Reference was made to income as well as standard of living disparity. A philosophy for rural development policies was proposed, that while the living conditions should be made as comparable as possible – thus income disparity removed to the extent possible, then the levels of production must remain different and this variation must be faced by all sides concerned, directly and indirectly. Ensuing conflicts ought to be resolved with social concerns in mind, taking into account the social development goals. This is not to disregard the economic feasibility conditions as not relevant. It is the role of economists to indicate the actual costs of such regional and social policy programs.

6. The particular importance and suitability of small business operations for the development programs in question was stressed in the course of the exchange of the three countries' experience, these being instrumental both in the creation of new jobs and as a vehicle of capital transfers – income generation sources of importance for the local rural communities. Thus all policies oriented at the development of farm-based non-agricultural activities as well as those not directly and indirectly related to farms should be supported. Research in Poland has shown that only half of the population sees possibility of development through creation of jobs in the villages themselves. Potential shortages of labor were feared for example as a barrier.

7. The experience of Finland has shown that both direct and indirect subsidies play a major role in the promotion of marginal regions development. Participants of the seminar were deeply impressed with first the scope of central state budget assistance to the development of Lapland, secondly with the excellent management and institutional organization, in particular of the banking arrangements, which were apparent during the field visits. In Poland integrated development programs, combining joint agricultural and industries and services operations were the main instrument of such policies. Financial instruments, which

play a major role in Finnish regional development policies, were found to be of secondary importance in Poland, as typical for an economy of shortage. In Hungary the regional policy is an integral part of the general assumptions of economic reform, which is deeply oriented towards market mechanisms. It was underlined that subsidies to the regional development programs should be neutral. The regional differences in this country reached presently such proportions that they give cause to social tensions and call thus for urgent action. The policies should be formulated at grass-roots level and note taken of the sensitivity of agriculture to financial constraints and conditions.

8. Joint discussions have shown that, while in form, instruments used in the regional development policies of the particular countries may differ, and thus their comprehensive review made in the course of the seminar proved most interesting, nevertheless, the problems experienced in setting the assumptions and determination of targets for such policies are common.

9. The field trips to extensive breeding reindeer farms in Lapland and to the local non-farming industries operations (tourism, catering), as well as information on the local banks role in financing development provided a most useful insight in the Finnish experience in practical implementation of development policies in less-favoured areas.

10. While this has not yet become a big problem in Lapland, concern was expressed over environmental issues, which as a rule become a development barrier earlier than expected. This was not a topic of seminar discussion but remains a major policy issue.

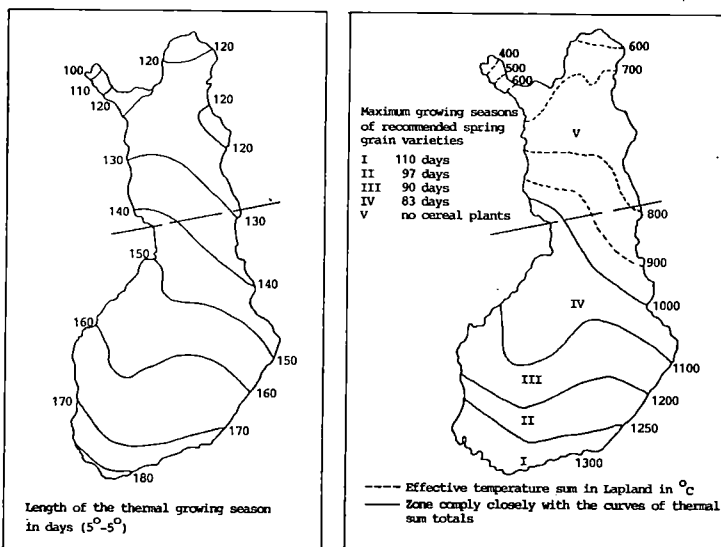
Kimmo Korpi  
 NATIONAL BOARD OF AGRICULTURE  
 ROVANIEMI, FINLAND

## CONDITIONS FOR AGRICULTURE AND RURAL INDUSTRIES IN LAPLAND

For centuries farming in Lapland has been largely dependent on both social conditions and the natural potential for agriculture. In earlier times the availability of fish and game was the reason for the spread of settlement and various occupations to Lapland. Agriculture has gradually gained ground alongside these natural livelihoods, reaching a peak with governmental support in the 1940s and 1960s. Since then the number of farmers and operating farms has fallen drastically, while production volumes per unit have risen. Economic restructuring, which has now been in progress for some 20 years, is still going on. It has reduced the proportion of those engaged in farming from 50 per cent to under 10 per cent.

### Conditions for agricultural production

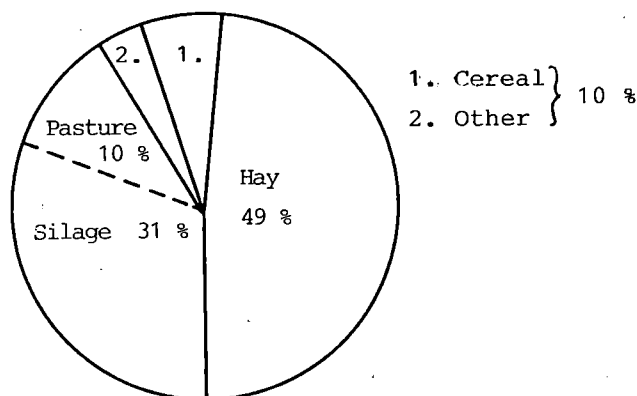
Because of its location, the climatic conditions of Lapland are less favourable than those in the southern parts of the country. The length of the growing season is only some 120–140 days in Lapland while it can be up to 180 days in the south. Likewise, the effective temperature sum in the northern parts amounts to only half of the maximum values in Finland.



Another contributing factor, which tends to allocate and restrict production, is the soil. Some 50 per cent of the field area in Lapland are peatland, which is considerably more difficult to farm than mineral soil. Natural factors account for the facts that agriculture in Lapland is mainly based on efficient cultivation of grass crop and that the crop is fed to livestock.

The total field area in the province is 74 000 hectares, of which only 75%, i.e. 55 000 hectares, is arable. Full-time farmers (which number 2 875) use 33 891 hectares of fields, and thus the field area per farm is 11.78 hectares. The average forest area of these farms is 109 hectares.

Field use on farms in Lapland:



### Production structure

The breakdown of farms by line of production is as follows:

milk producing farms	2 200
meat producing farms	
beef	130
pork	50
mutton	150
poultry farms	40
plant and special products farms	150
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	2 720

Farms with small-scale production or with no farming

7 934

Dairy herd size in 1988 was as follows:

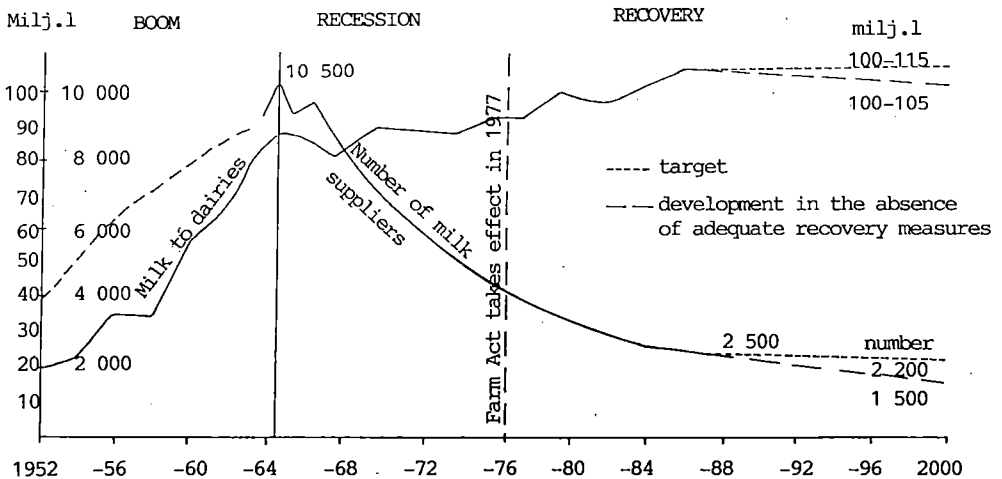
1-5 cows (average 3.5)	564	24.6%
6-10 " (average 8.0)	877	38.2%
11-15 " (average 12.8)	580	25.3%
16-20 " (average 17.5)	239	10.4%
over 20 " (average 24.7)	36	1.5%
	2 296	

In 1988, a total of 104 605 275 litres of milk was delivered from 2 009 farms to dairies, representing an average of 52 068 litres per farm and 5 200 litres per cow.

### Future prospects

In the coming decade, agriculture in Lapland will experience a further sharp fall in the number of farmers. This is mainly attributable to the insufficient number of people interested in continuing in farming. This results both from various social factors and from measures designed to cut down agricultural production, which tend to hinder development.

The following chart illustrates past and forecast developments



The decrease in the number of farmers will inevitably be reflected in a fall in milk production volumes, which will again cause problems for the industry processing the products.

The age structure of those engaged in farming is no worse in Lapland than elsewhere in the country. The lack of successors is slightly higher in older age groups.

The major problems arising from the decreasing number of farmers will, however, be felt in the surrounding society and settlement. The preservation of education, social services, transport and the settlement itself will be threatened first in the peripheral areas of the country. In Lapland, the primary areas to be affected are those settled in the post-war era, where agriculture was to be the main livelihood. Thus, increasing attention has lately been paid to the preservation of settlement in rural areas and to the revival of business there. It should be borne in mind, however, that not enough attention has been paid to the various problems that may result from depopulation.

#### **Needs for the development of farming**

Any measures restricting and allocating agricultural production in Lapland should be eliminated and production should be allowed to develop freely in production sectors suitable for Lapland.

Thus

- limitations imposed on farm milk and meat production should be removed;
- field clearance measures should also be allowed in future in order to increase field area per farm;
- legislation providing financial support for agriculture should be fully implemented;
- beef production should be expanded and pork production increased with some 400 sows;
- the profitability of sheep husbandry, which is well-suited for small farms in Lapland, should be enhanced with support measures;
- support to agriculture in the region should be continued on the basis of the present system and its total effect should be improved;





Juhani Ikonen

Pines and Alpine birches are the only trees to survive in the conditions north of the 68th latitude.



Juhani Ikonen

The lake Inari is normally covered with ice nine months per year.

- marketing and processing of products should be further developed on the basis of special products and by giving priority to products of Lapland;
- as far as agricultural advisory services and training are concerned the region's special requirements are to be taken into consideration, in particular as far as basic advisory services and long distances are concerned.

### **Rural industries**

Farming is often supplemented by various rural industries. The main rural industries in Lapland are special enterprises such as forestry, fishery, reindeer husbandry, fur farming, farm holidays and tourist services, gathering natural products, peat production, cottage industry and various small-scale contracting.

Special farming consists primarily of gardening, mainly concentrated near population centres. The region's self-sufficiency in these products is only 10-15 %. This type of cultivation could be expanded; as much as a fourfold increase in present production would be feasible. In the last few years, the cultivation of the local potato variety (Puikula) and its development and marketing have formed a special sector.

Farm income from forestry accounts for about 20 % of the farmer's gross earnings. The importance of this sector is particularly underlined by the fact that the farm's labour and machinery can be used in logging work. It has also been possible to utilize capital derived from forests for the improvement of farm building stock and machinery.

Fishing is concentrated in areas surrounding Lake Inarinjärvi and in eastern Lapland. The importance of rivers for fishing has declined. Major overall investments have been made to support fishing enterprises, and noteworthy progress has been achieved. The number of professional fishermen is 100 and of those earning additional income from fishing 250.

Reindeer husbandry provides the main livelihood for some 600 families and substantial subsidiary income for an additional 1 000 families. Some 3 000 people are engaged in actual reindeer management in the region. Reindeer husbandry is carried out alongside agriculture, in particular in the southernmost parts of the region, while in the northernmost parts reindeer husbandry is the main occupation of the Saami (Lappish) population. The region produces some 3 million kilos of reindeer meat annually, an amount roughly equivalent to that of beef produced in the region. Due to the insufficiency of natural pastures

reindeer husbandry cannot be expanded but even at its present level its importance for the preservation of rural settlement and as a source of livelihood is great.

At the peak, there were 180 fur farmers in the region. Declining profitability in this industry has, however, notably decreased the number of companies operating in recent years. The number of entrepreneurs in the region is likely to stabilize at 100, and thus contribute to the promotion of rural industries.

Gathering natural products mainly involves berry and mushroom picking and marketing. Of these, the most important is cloudberry picking and sales. Income from the sales of berries, some 30–40 million marks, is an important income source for the rural population, particularly when the crop is good. Further processing of natural products could still provide new opportunities for business.

Like all tourism in Lapland, farm holidays are still an expanding industry, which is only beginning. At present, there are some 100 farm holiday enterprises, mostly concentrated near tourist and population centres. Marketing and the entrepreneurs' lack of professional skill have so far tended to hamper the growth of this industry. Many farms acquire substantial additional income from the sales of tourist services, which often develop into the main source of livelihood for the entrepreneur. Development prospects for this industry are good.

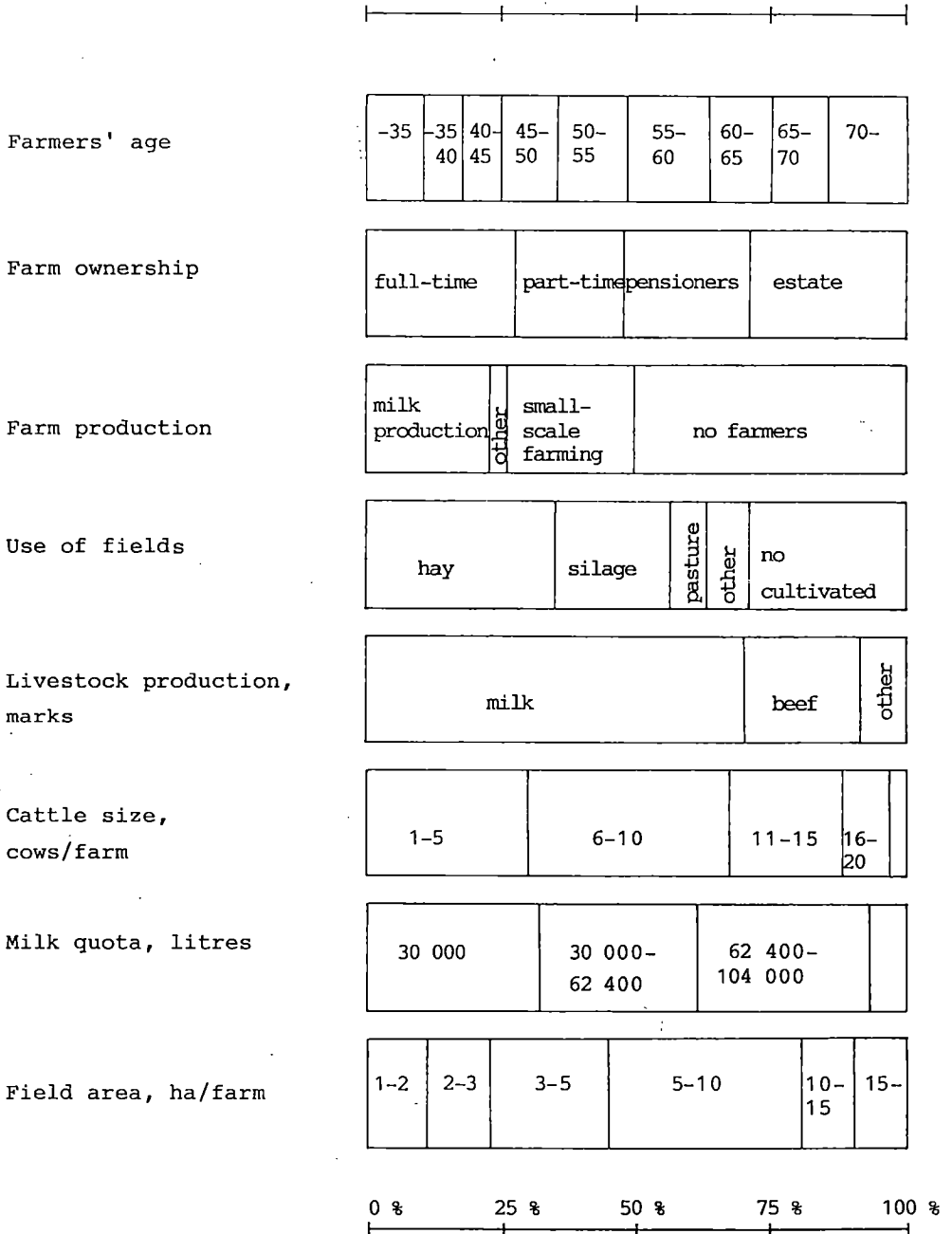
Rural occupations also include various domestic industries and handicrafts. In the last few years, the number of small-scale contractors and small businesses has rapidly risen. Companies specializing in peat production and the generation of domestic energy have also appeared in various parts of Lapland.

Nevertheless, the potential for increasing rural occupations is so limited that the number of new jobs has not been sufficient to offset the number of companies abandoning agriculture. The number of new jobs created in rural companies amounts to some 100 a year. Rural settlement, employment and utilization of natural resources can, however, be safeguarded by further developing various operations.

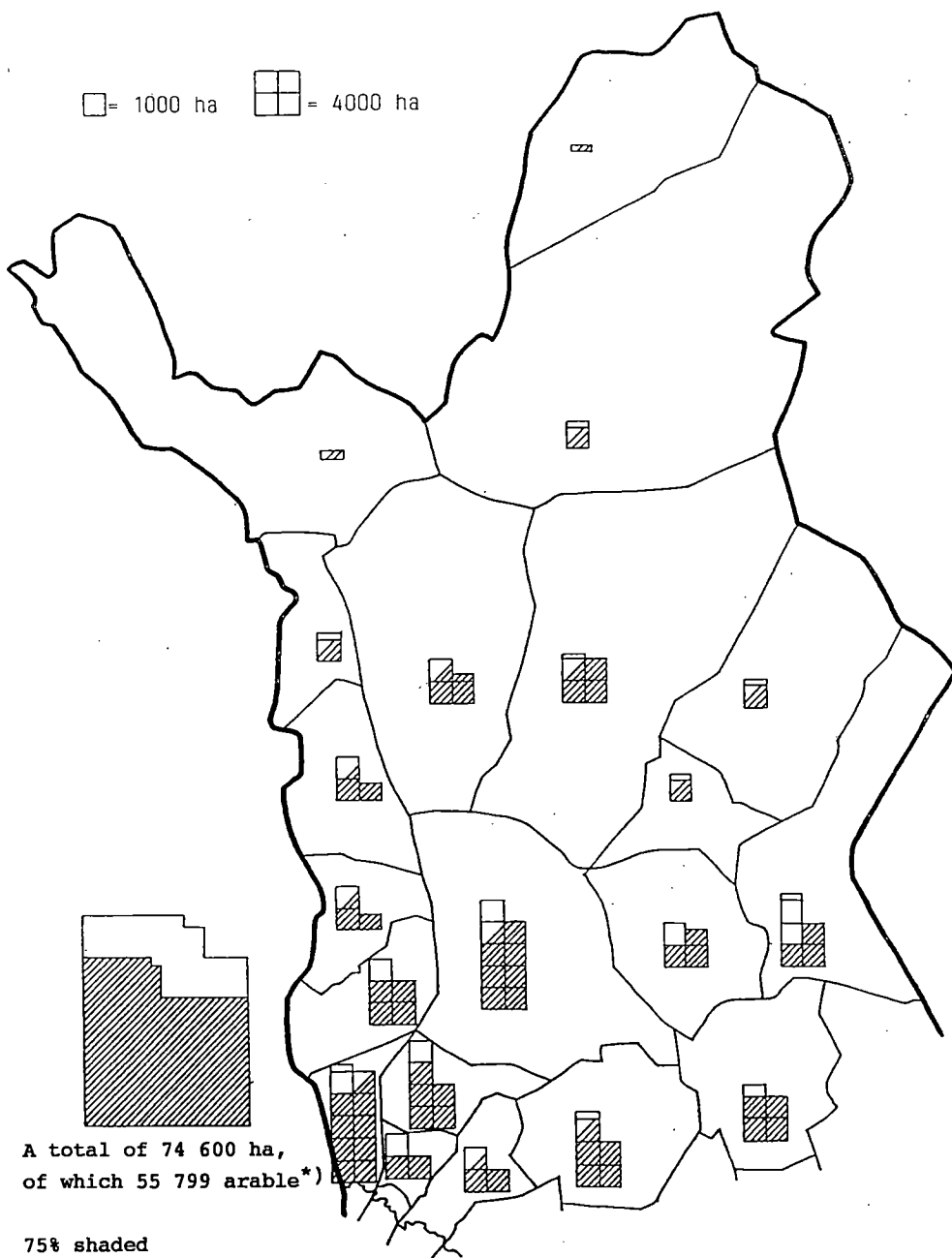
## LAPLAND/ALL FINLAND 1986

	Lapland	Percentage for Lapland	Total for Finland
Surface area, sq.km	98 937	29	338 147
Land area, sq.km	93 057	31	304 625
Inhabitants	200 924	4	5 000 000
Inhabitants/sq.km	2		16
Thermal growing season days	100-140		100-180
Effective temperature sum °C	400-1 000		400-1 300
Farms in 1984	11 254	5,5	203 933
Field ha	74 100	3,1	2 392 000
in cultivation	53 500	2,3	2 260 000
Crop production grassland plants		5,5	783 000
- hay ha	26 400		
- silage ha	16 400		
cereal			193 000
- bread grain ha			
- feed grain ha	3 300	0,3	1 017 000
potato ha	1 200	3,0	40 000
Livestock production			
milk suppliers	2 460	4,1	60 000
cows	23 600	3,9	607 000
milk production litres (dairy)	112 000 000	4,0	2 803 000 000
meat production			
- beef kg	3 800 000	3,0	125 000 000
- pork kg	1 100 000	0,6	174 000 000
- mutton kg	96 000	7,5	1 300 000
- reindeer kg	3 000 000		3 300 000

STRUCTURAL FACTORS IN THE AGRICULTURE OF LAPLAND

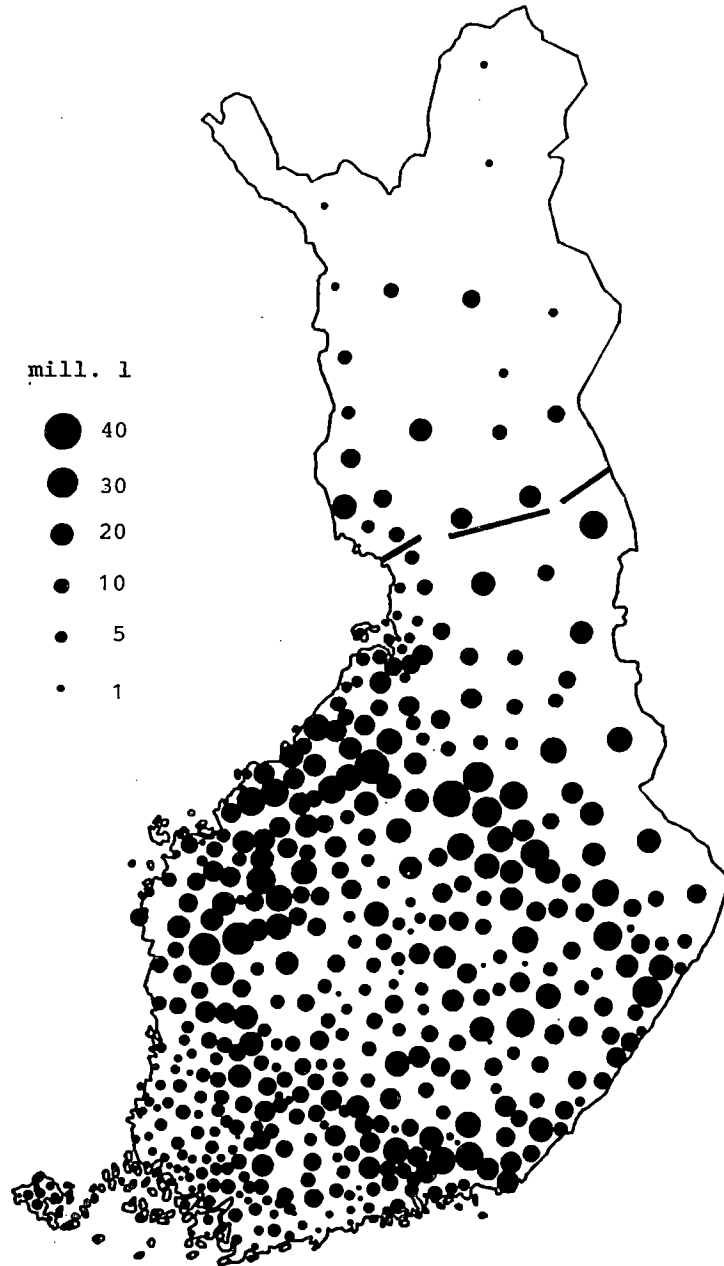


## BREAKDOWN OF FIELD AREA



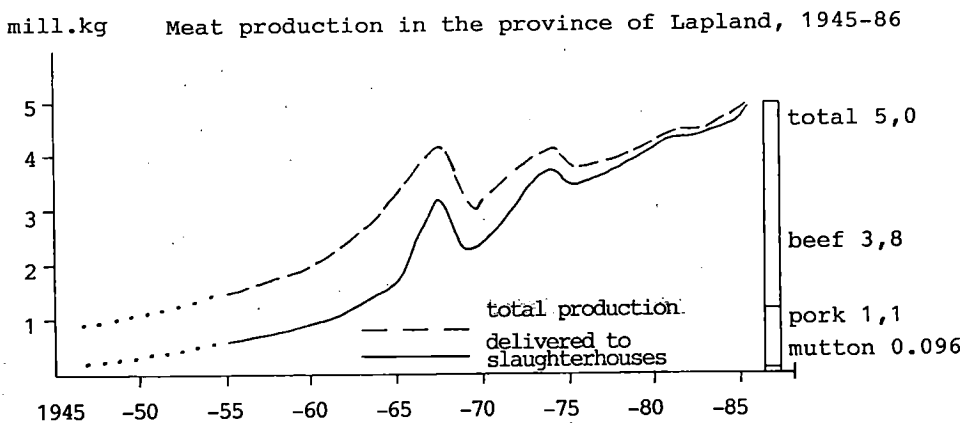
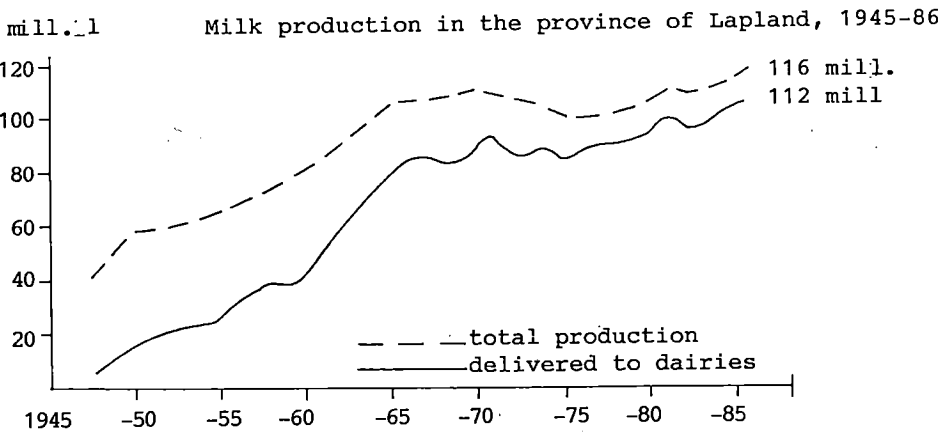
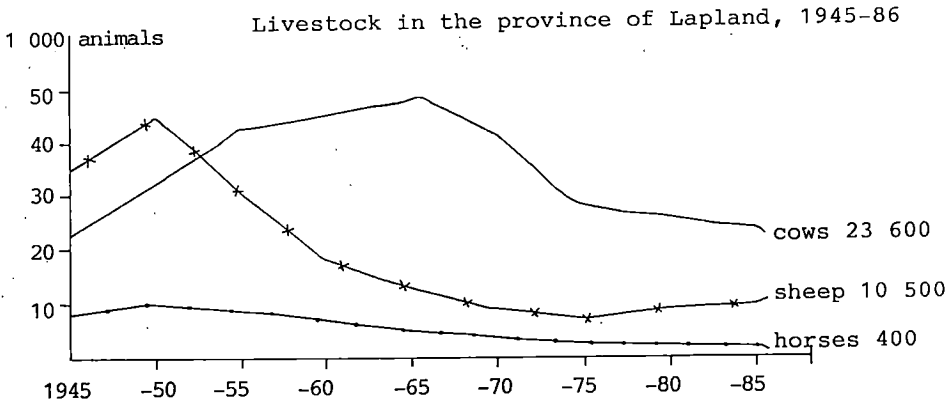
\*)arable land areas vary according  
to statistical source

MILK PRODUCTION BY MUNICIPALITY  
IN 1987



Source: dual price register for milk

LIVESTOCK PRODUCTION





Béla Csendes

RESEARCH INSTITUTE FOR AGRICULTURAL ECONOMICS  
BUDAPEST, HUNGARY

### SOME IMPORTANT LINES OF THE NEW HUNGARIAN AGRARIAN POLICY<sup>1)</sup>

The worst and most brutal traits of Stalinist agrarian policy were suppressed after 1956 in Hungary. A new agrarian policy was started and brought much success. Results were mainly achieved, where earlier mistakes were corrected. The necessity of starting a new agrarian policy cannot be justified only with the complete elimination of all the earlier mistakes of agricultural policy but also with creating agricultural production relations and farming forms that will accommodate the quality-aspect and make possible fast and flexible response to the market relations by offering free play to human initiative and building upon entrepreneurship and risk taking. All this is essential for a considerable improvement of the competitiveness of Hungarian agriculture.

From among the many important questions of the new agrarian policy, I would like to treat one particular topic, the reform of ownership in some detail. All the main questions are basically defined by this and according to my view, it is an issue of central importance for the whole agrarian policy.

The most important task facing us is to build a market economy. Reform of ownership is an essential condition for this. It is necessary to have real owners as the market is not operative without these.

In the period of the different forms of centralized economic control and management – called Stalinist type control, party-state or direct guidance – the existence of real owners interfered with the steadfast enforcement of the central will. Thus assertion of central political and economic conceptions was necessarily coupled with the suppression of some ownership-forms and the creation of collective ownership-forms with common ownership, definitely controlled by the central will, where the producers are not real owners. A kind

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<sup>1)</sup> This paper is not intended for discussion as a separate item on the agenda, but as background information to all Hungarian papers. Opportunities for all farms with unfavourable endowments will be profoundly modified by the new agrarian policy. (The author.)

of ownership developed that was obscure, incomprehensible and uncontrollable. In these conditions workers got under hierarchic control within the framework of common ownership of the central and local decision-makers, the later having a special subserviance to the centre. Interest within the cooperatives was also transformed to a typical wage-earner interest. This change took place even under condition of the 1956 change in agrarian policy.

A real market-economy cannot function - in contrast with the previously outlined economy - in the absence of real owners. The new agrarian policy has to be therefore focused on developing real ownership-conditions and building interest based on this. Development of real ownership conditions implies actual ownership existing in state farms and cooperatives to be transformed and opportunities created for their agricultural labourers (or those who would like to work there) to act as entrepreneurs. This could be based both on ownership or lease. Development and free competition of different ownership-forms should get free headway in agriculture and based on this formation of different farm-sizes should be encouraged.

Without a variety of different ownership and enterprisefoms competitiveness, ability for adjustment and efficiency of Hungarian agriculture cannot improve. Mixed ownership and diverse enterprise forms cannot be realized, without changing the operation of the present large-scale farms and breaking their all-embracing expansion and monopolistic position.

Large-scale farms have actually monopolistic rights for ownership and use of land. Considerable ownership-reform is inconceivable without changing this.

It is equally important to note, that ownership-reform is unaccomplishable if cooperatives and state farms act as one-way streets where it is only possible to join or to establish a new farm, but it is not possible to leave or to dissolve the cooperative and the member cannot take away land and propriety brought into the large-scale farm.

By allowing dissolution and leave of the large-scale farms and breaking their monopolistic positions their workers will be enabled to change their actual position and circumstances and to press - if necessary - the management of the cooperative to transform operation and activity in line with the intention of the members. If there is no possibility to leave or to dissolve, cooperative members are deprived of the most important guarantees, i.e. choosing, real decision-making and interfering.

Ownership-reform in agriculture cannot be separated from the rearrangement of land-ownership relations. This concerns first of all the evaluation of land. Without this it is not possible to fit the basic production-factor into the farming process in a rational and complex way. This further implies the sale and purchase of land as good and capital, free use and lease. If sale and purchase are not liberated it is impossible to have a variety of farming-forms and those who are ready to enter agricultural production as owners will be prevented to do so.

Land is, however, a special kind of capital or good having many special characteristics and this is especially true in our present conditions. Without identifying and handling these properly it is impossible to have a well functioning land trading and land use. Some of the special characteristics are the following.

Although land is collectively utilized, personal land ownership of cooperative members still exists in a considerable extent. Personal land-propriety has to be further preserved, in case of sale or purchase it is only the owner who will dispose. Payment of land-rent in line with real conditions for use by the cooperative has to be made possible.

A considerable part of cooperative land is in cooperative ownership. Members do not feel this to be their effective propriety. This has to be changed. One way for this could be for the member whose (or his/her parents) land was already paid off by the cooperative can have back the ownership by paying a sum equal to that paid earlier by the cooperative. Nominal division of land in cooperative ownership among the members of the basis of a collective vote, should be also considered. The nominal division is, however, not equivalent with the transfer of ownership if the cooperative dissolves or the member leaves private land-ownership will not automatically result only by paying the redemption price. Confering land-ownership titles to definite persons entitles however cooperative members to get land-rent from collective income. Without a land-rent it is inconceivable to make cooperative members really interested in a good utilization of cooperative land.

It is a special problem to prevent large-scale farms from squandering land at any price or eat it up as personal income.

As it is actually typical for the cooperatives to extend to 5-6 villages, there is a danger that the top-management of large-scale farms could sell the land of a village. It has therefore to be arranged, what right cooperative members and public bodies of the cooperatives and villages, involved will have to interfere, what kind of option and decision making they have.

Actually there is general consensus that part of the indivisible property of cooperatives has to be made divisible and in case of a member leaving or dissolution cooperative property has to be divided among the members. All this is essential for strengthening ownership-feeling. It is very important that the determination of the part to be divided and the fixing of the rules for this should be fixed by the collective membership of the cooperative.

All that was outlined will result in a new situation in the cooperatives, new opportunities for the members and could open the possibility for a new way to operate for the cooperatives. Concrete arrangements and the rate of progress will, however take place according to the intention of those involved, at a pace participants consider necessary. Nobody can be made proprietor against his or her intention, but nobody can be excluded from the propriety either. Ownership reform can proceed based on those involved in a complex way, taking various forms locally considered important. The sole task the government has to provide against ideologic, legal and controlling-mechanism obstacles that could impede complex development up from the grass-roots.

Ownership-reform does not make the majority of the large-scale farms unnecessary, but they will be transformed into real cooperatives, serving the interests of the members. Propriety-management, organization of the business, servicing, integration, giving advice and the democratic running of meetings of the membership will become the main activities of the cooperative center.

Complex development starting from the grass-roots, doing away with all impediments will surely emphasize the evolution of the new enterprises in the framework of the large-scale farms and leasing. Farming based on the family and on private ownership is expected to start, great extension, however will come only later. Its development is largely dependent on the growth and functioning of political pluralism, long-term and stable legal security and such conditions that are linked with the reform of the price- and control-system.

An economic system which enforced the central will and suppressed real ownership pushed all this to the limit and created such a price- and control system that did not supply enough income to support the owners. Stalinist agrarian policy inevitably led to a producer price system where production costs were not covered and low consumer food prices were based on the ideology of socialism.

Realization of the ownership-reform is conditional on a change in agricultural price- and income relations also. There are some who deny the necessity of a radical reform in agriculture and call only for more money, this opinion cannot,

however be upheld, as it would mean the postponement of the reform! An other view is that only ownership relations have to be reformed and it is not necessary to have more favourable price-, tax-, and income relations. This is also unsupportable as it would make ownership-reform impossible.

Hungarian agricultural policy has in the past three decades broken with the gravest mistakes of Stalinist agrarian price policy, abolished compulsory delivery of agricultural products to the state and several times improved agricultural price relations. Real breach with the past, however could not be consistently realized in this sector either. Even in the last years agricultural producer price systems and consumer food price systems still had important difference with price-systems in other sectors of the national-economy. Tight official constraints still remained in agricultural and food consumer pricing while in other sectors of the national economy the impact of rising costs could be freely shifted to others. The consequence is growing disparity of agricultural producer prices with input prices and this considerably restricts agricultural income. Ownership reform and accomplishment of the market-economy will make a complex integration of agricultural producer prices and consumer food prices with the global price system of the national economy indispensable. It is also necessary in this sector to have prices moving according to the market conditions and formulated in the course of a bargain of the producers and buyers. A precondition for this is a sound presentation of agricultural sectoral interest and the creation of an efficient safeguarding system. It is also important to emphasize that because of the special characteristics of agriculture and the important position it has on the national economy, market regulation and intervention with auxiliary function is necessary both on the domestic and foreign markets.

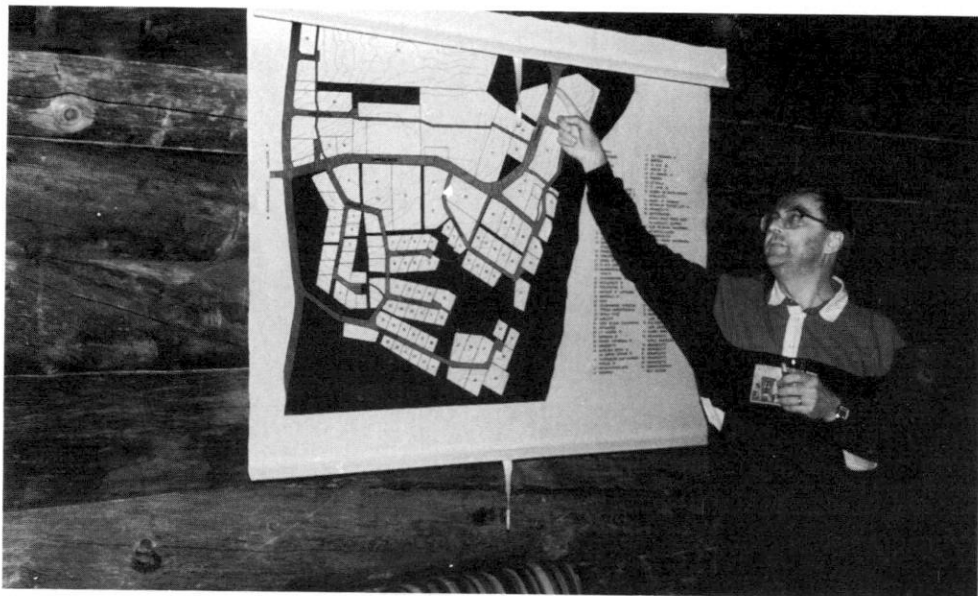
Building of a market-economy involves the existence of neutral conditions in competition, i.e. equal conditions for all participants on the market irrespective of sector affiliation (private, coop, state). This is true for the agricultural sector also, price and control systems should be neutral to different ownership and farming forms and agriculture should not be discriminated with regard to prices, taxes and subsidies in relation to other activities.

Shaping ownership reform and managing the new ownership forms implies that rates and methods of the tax-system should be conform with the characteristics of agriculture and agricultural production relations. In the course of the improvement of the tax-system, attention should be paid on avoiding for the new tax system to interfere with the spreading of new enterprise forms. It is almost impossible to realize a separate taxing of wages and profits in the various enterprise forms. It is, however important to note that the actual complicated accounting system is the main obstacle for the growth of new enterprises.

Agricultural production is characterized by high fixed and working capital demand. Own resources at disposal are, however tight and for the inflow of external capital, the actual situation is not considered to be attractive. Experience of the last years has shown how difficult it is to fit agriculture into a restrictive credit-system. Solution has to be found for such pressing problems of agriculture as short-term credit-supply, lowering of the actual high interest rate etc. For the solution of these problems agriculture should also have as soon as possible special credit institutions, among them banking organizations of the cooperatives and to establish on a longer term land-mortgage and the institutions necessary for granting credit on this base.

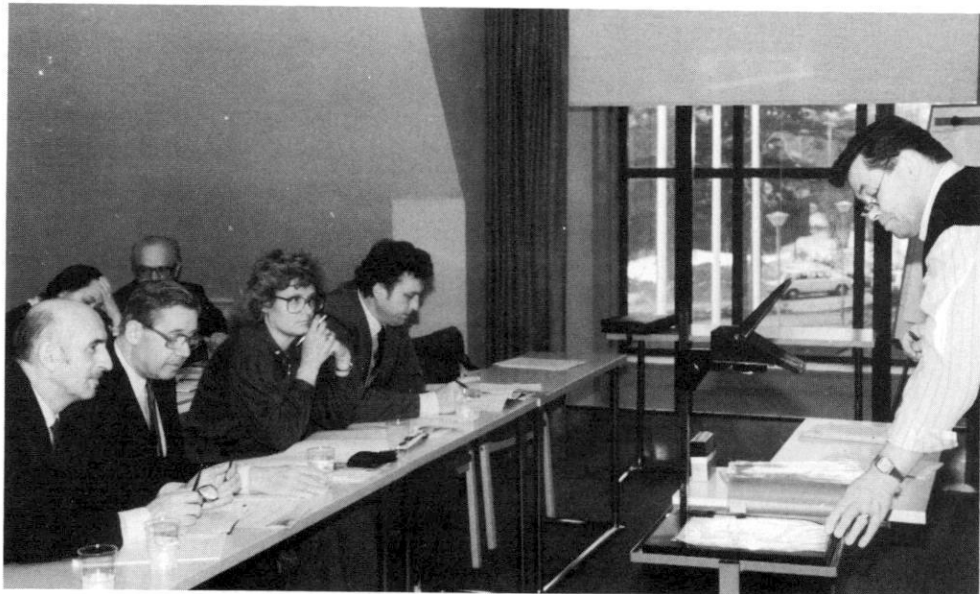
The spreading of enterprising and family farming makes the establishment of a modern insurance-system necessary that would be capable to parry the vagaries of the weather.

The reform of the agrarian sector is strongly linked with the progress of political and economic reform. It can be only successful if the reform will be consistently realized in the whole society and economy.



Jukka Kola

Professor Aatto Prihti was a man behind the excellent seminar arrangements and hospitality. Saariselkä village, as a modern tourist center, offered ideal circumstances for the seminar.



Jukka Kola

Seminar had an intensive program. Agriculture in difficult circumstances appeared to be very interesting topic for each participant country and brought about lively and rich discussions during work sessions.



Jukka Kola

Accommodation of the seminar participants were hosted by YIT Corporation and Tapiola Group in comfortable *kelo*-houses.



Juhani Ikonen

*Kelo* is very old dead pine that is still standing. Such pines can be found on northern forest areas and they are desired material for grand holiday dwellings.



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**DEVELOPMENT OF THE INFRASTRUCTURE AS ONE WAY FOR THE  
ACTIVIZATION OF ECONOMICALLY NEGLECTED REGIONS  
(The Experience of Korycin in the Bialystok Region)**

(1) Poland is not among the countries with a sharp regional differentiation of the conditions for agricultural production, nevertheless one can point to regions, where due to varied reasons, phenomena and processes leading to a stage by stage, social and economic degradation are observed. A particularly rapid rate of such transformations was observed in recent years in the województwo administrative regions of the so called "Eastern Wall", located near the eastern border of Poland. These degradation processes are noted in particular in the sphere of demographic changes, thus finding reflection in:

- a relatively higher share of the population in the post-production age brackets, compared to the national figure;
- a migration of labor, mainly of young people to urban centers and to industrial centers;
- a progressing feminization of the profession of farmer, with a parallel, marked migration of women from countryside to towns.

In the region of north-eastern Poland (these being the following województwo administrative regions: Olsztyn, Suwalki, Bialystok) we find in addition to the above also inferior quality soils and climate conditions less favorable from the agricultural practice point of view <sup>1)</sup>.

As result of the above listed premises we see a decreasing number of farms in the region in general, a growing number of farms without successors, a growing area of farmland for which there is no demand, no prospective user.

<sup>1)</sup> In the Olsztyn województwo in view of the close family links we observe the phenomenon of large scale of economically-motivated migrations to the Federal Republic of Germany.

(2) In order to counteract these phenomena and to alleviate their economic and social impacts, in recent years essays have been undertaken to stimulate, to act as an incentive for the development of the endangered regions. One of the most important directions of activity are programs of expansion of the local technical infrastructure, both that engaged in production, as well that contributing to the broadly conceived standard of living. An example of a micro region where such broadly conceived activities have been undertaken, including investment programs, is the commune (g m i n a) of Korycin in the Bialystok w o j e w o d z t w o administrative region. In this commune we find all of the phenomena listed before, which lead to a stage by stage decline of agriculture, a relative pauperization of the local community, a deterioration of the demographic composition of the local population.

(3) The Korycin commune is located in the northern part of the Bialystok region. Its total area is 12,244 hectares with farmland totalling 10,744 hectares. Arable land dominates, which accounts for 7,589 hectares (i.e. 62 percent of total farmland area), with as well a large share of pastures and meadows (25 percent of farmland). Approximately 10 percent of the commune's area is occupied by forests, orchards, settlement areas, roads and idle, waste lands.

Light, sandy soils dominate, of low quality. 99 percent of all soils are classed in quality groups IV and VI, the lowest two in a 6 level soils classification system.

In the farmland structure by form of ownership decisively private, peasant farms dominate; these use some 94 percent of the farmland in the community. The balance, i.e. 6 percent of the farmland, belongs to an RSP Agricultural Production Cooperative (68 hectares), the rest being land placed at the disposal of the PFZ State Land Fund (land bank) - 154 hectares, with no farmers willing to buy this land.

The private farms are relatively large in size. The average area of a farm is about 11 hectares, which is more than twice the average figure in all peasant farming. About 45 percent of private farms in the Korycin commune have an area greater than 10 hectares, and 7 percent of farms have an area exceeding 20 hectares.

Taking into account the quality of the soils, the sharper climate and the shorter vegetation period for crop production in this part of the country, extensive cultivation of grains and potatoes dominates. In livestock breeding,

despite a large share of pastures, the main line is swine breeding (dominating in terms of sheer livestock numbers), this based on potatoes on produced on the farm, followed by the breeding of cattle and sheep.

In the Korycin commune out of a total of 933 private farms, the owners of 551 farms were aged over 55 years. Among these as many as 156 had no successor. The farms without successors accounted for an area of 1,313 hectares of farmland. It is assessed that without some form of counteraction at least half of this area will be placed at the disposal of the PFZ State Land Fund land bank.

In the commune as such there are no possibilities of importance for employment outside the farm, despite the fact that in general (in relation to the level of intensity of farm production) we find potential surpluses of labor, assessed at +20 percent. This means, on an annual scale, that we find a surplus of some 86 thousand mandays, which corresponds to the employment of 288 persons during 300 days a year<sup>2)</sup>. Surprisingly, only 28 farms may be termed as pluri-active, the owners of 13 farms finding employment in the commune.

In the Korycin commune we find some services, communication and social infrastructure. Nevertheless, out of a total of 33 settlement units (villages and isolated settlements) in at least 4 we find no elements of infrastructure and in 26 we find some elements of it, which may be termed as only elementary. The levels of infrastructure developed termed for research classification purpose as basic and more than basic was found in only 3 settlements units (one of these being the seat of the commune authorities)<sup>3)</sup>.

(4) Further analysis of the production and social situation of the Korycin commune (which we will not go into at this point), confirms the view that the arrest of degradation processes will be possible only in conditions of undertaking intensive actions in two directions:

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<sup>2)</sup> See: ZAWADZKI W., TARGIELSKI J.: Infrastruktura techniczna na tle produkcji rolnej w mikroregionie społeczno-gospodarczym, na przykładzie gminy Korycin w woj. białostockim (Technical Infrastructure Against a Background of Agricultural Production in the Social and Economic Micro Region of the Korycin Commune in the Białystok Region), IAFE publication, KRE series, no. 220.

<sup>3)</sup> Basis research by D. KOŁODZIEJCZYK: Infrastruktura w procesie rekonstrukcji wsi na przykładzie gminy Tychowo, woj. koszalińskie i gminy Korycin, woj. białostockie (Infrastructure in the Process of Reconstruction of the Villages, Basis the Example of the Tychow Commune in the Koszalin Region and the Korycin Commune in the Białystok Region), IAFE publications, KRE series, no. 231.

(a) the economic activation of the local community, both in the sphere of agriculture, as well as outside agriculture activities, mainly through the utilization of the production resources (including idle labor resources), which are found in the commune itself;

(b) revalorisation of the commune as a center of social life, as well as cultural, securing the realization of the standard of living of the inhabitants. Following these premises, a plan of spatial development of the commune has been elaborated, which foresees until the year 1995, i.e., the following developments:

- expansion and modification of the activities of the enterprises providing production services for agriculture, these being first of all the cooperatives of agricultural circles, as well as the 2 existing private craft shops and the starting of 5 new ones;

- drainage and irrigation improvement projects on about 700 hectares of farmland;

- amelioration of the electric energy supply network for the villages, including repairs and modernization of the medium voltage line (15 kv) and construction of new parts of it, as well as building new transformer stations with greater power. In further perspective it is planned to build a new high voltage line (400 kv), relating from Bialystok to Suwalki, which will go through the area of the commune;

- improvement of the surface of local roads and their adaptation to heavier traffic and transport loads as well as the construction of 10 kilometers of new local roads with asphalt surface;

- construction of a communal system of sewages, adding 4 water pumping stations, which will supply the whole commune with drinking water;

- the expansion of housing in the commune, including housing for the non agricultural population, which works in services and local administration (some 30 housing units);

- construction of a kindergarten and expansion of the school presently operating in Korycin;

- construction of a cultural centre in Korycin;

- construction of another health centre, which would provide health care for the inhabitants of villages in the southern part of the commune as well as building an social care home (for 30 persons);

- construction or expansion of shops in six villages in the Korycin commune as well as the construction (in later years) of a 110 place restaurant and motel on the Bialystok-Augustow road (with major tourist summer traffic) and a recreational centre with a 3 hectare stadium, as well as school playing fields. Reconstruction of the existing historical and cultural monuments is also foreseen.

The above listed scope of planned developments, aimed in the direction of supplementing the presently appearing gaps and shortcomings in the micro region infrastructure does not yet conclude the list of proposed undertakings. But even the list presented so far, serves to stress the distance which separates present Korycin from the state desired. It also explains, for a part at least, why degradation processes are taking place there.

A number of the planned undertakings are already in realization. Though at this moment it is difficult to speak of any effects of the works undertaken, in particular of the role as a stimulant for development, already it is known, for example that the expansion of investment activities alone has enlarged the local jobs market and in practice has served to arrest, partly, the migration of labor. The planned increment of jobs number in the production services sector as well as standard of living services, means a growing demand for specialists (craftsmen, doctors, teachers, cultural sphere workers etc.), these presently being in short number in the commune. This means that qualified staff will have to be imported from outside the commune in the coming years.

In past periods Korycin, one notes, was a town, but it has lost its city rights in the pre World War Two period, because of its declining infrastructure. Presently we find in Korycin a revival of ambitions and aspirations to essay a return to former town status. The undertaken program of revalorisation of the local infrastructure represents a sound foundation for such ambitions.

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## THE GOVERNMENT'S ROLE AND AGRICULTURAL POLICY IN THE AGRICULTURE OF NORTHERN FINLAND

### 1. General

Finland is the northernmost agricultural country in the world. Compared with the nearest Scandinavian countries, Sweden and Norway, conditions for efficient agricultural production in Finland are, however, much poorer. In Sweden, 87% of the arable land is situated further south than in Finland. In Norway, the corresponding figure is 46%. Thus average yields in Finland are also smaller. The average wheat yield in Finland is 3 200 kg per hectare, in Sweden over 5 500 kg, in Norway some 4 000 kg, while in Denmark it exceeds 6 000 kg per hectare. Differences between feed grain yields are naturally smaller. However, efficient farming is possible only in southern Finland. Feed grain, mainly barley, can be efficiently grown in central Finland but in northern Finland the only practical alternative is grassland farming.

The average size of Finnish farms is also rather small. The arable land averages 14 hectares; in Sweden the area is double. The arable land area per farm decreases the further north the farm is situated. The post-war settlement policy is still strongly reflected in the small size of Finnish farms. Of the total labour force, almost 10% is still engaged in farming (both agriculture and forestry). In Sweden, the proportion is less than 4% and in Norway some 6.5%. Because of natural conditions, animal husbandry is still very dominant in Finnish agriculture. In inland Finland and northern Finland, in particular, milk will always remain the most important line of production.

The fact that Finland is very long in the north-south direction imposes further special requirements on agriculture. Production alternatives are relatively scarce north of the Arctic Circle. The problem does not concern agriculture alone; any economic activity is more difficult in northern Finland. Population and consumption centres are situated in southern Finland, and so are industry and international connections. Consequently, regional policy has been an important tool in Finnish economic policy in the past few decades. The aim has been,

and still is, to preserve settlement in northern Finland, and this requires sufficient economic activity in the region.

Agriculture has been a major element in Finnish regional policy. The large rural areas of northern Finland, in particular, will remain settled only with the help of suitable occupations. Difficult natural conditions are not only a problem but also a great resource for Lapland. Besides traditional animal husbandry, reindeer husbandry, fishing and other activities based on the natural environment, such as tourism, are important to Lapland.

One of the main objectives of Finnish agricultural policy is to guarantee a sufficient income level for farmers. Since the 1950s this aim has been realized through various agricultural income acts. Target prices, which on average suffice to attain the targeted income level, are confirmed for the most important products. Price level stability is secured by exporting excess production with a government subsidy. In the past few years, producers have contributed increasingly to export costs.

Nevertheless, target prices are enough to attain the income level only on fairly large farms, which are well looked after. Income differences would be rather large and therefore income differences for various size farms in various parts of the country are evened out with a special subsidy system.

The following is a brief overview of the agricultural subsidy systems and their importance for northern Finland, in particular, and of other governmental activities aimed at maintaining and promoting agriculture and other, small-scale business activity in northern Finland.

## **2 Income support system**

A calculation of the total income and costs in agriculture provides the basis for the income system in agriculture. Income increases, which are designed to maintain the difference between them at the level agreed, are decided in annual negotiations between the government and producers. This difference (net income) refers to the share of the total agricultural income constituting the farmer's wages and interest on capital.

The increase in income is effected by raising both the target prices for products and with pricing policy support. Pricing policy includes support according to the farm size and regional support.

## 2.1 Support according to farm size

Support according to farm size aims at evening out income differences between farms. Farms on which the farmer's income does not reach set maximum amounts are entitled to this support. The extent of the support is mainly dependent on the following factors:

- the arable area may not exceed 30 hectares, the support is highest for farms of 7-19 hectares;
- as far as dairy cattle are concerned, the support increases up to seven cows;
- full support is paid when a farmer's income is a maximum of some FIM 70 000. The maximum income limit is FIM 100 000;
- the support is increased by 40% for farmers under 35 years;
- no support is paid to those over 65;
- the support increases by 10-50% from the south to the north. The increase is highest in northern Finland.

## 2.2 Regional support

Regional support is paid in the form of higher prices for milk and meat per each litre or kilo produced. The underlying principle is that differences in production costs arising from different natural conditions must be reflected in the price paid to the producer. Regional support is graded; the country is divided into eight regions and the extent of milk and meat production support is set separately for each of them (see Appendix). While the target price for milk to the producer is some FIM 2.45 per litre for the country as a whole, the additional production support in the northernmost parts of the country is FIM 0.63 per litre. The target price for meat is some FIM 26 per kilo (in 1988) and the production support in northern Lapland FIM 8.70 per kilo. Animal husbandry in northern Finland is also facilitated by payment of a special direct subsidy on the basis of the number of domestic animals. The subsidy is regionally graded and amounts to FIM 130 - 1 275 per animal (cow).

## 3 Other pricing policy support

Certain other subsidies are also paid to farmers in product prices though they do not have any other regional policy significance. In order to keep consumer prices at a reasonable level, an additional price for milk is paid out of government funds. It amounts to FIM 0.23 per litre for the country as a whole up to 37 000 litres and thereafter to FIM 0.12 per litre up to 150 000 litres. Thus the additional price favours small and medium-size farms.



In order to increase meat production, beef and mutton producers are also paid a production bonus throughout Finland.

The following calculation illustrates the share of various subsidies in total agricultural income. The figures are for the whole country. While subsidies account for some 35–40% of net income in the country as a whole, in northern Finland the figure is some 75%. No exact figures are available, but various studies indicate that the support system is relatively efficient in evening out income differences between various parts of the country.

Income, costs and net income in agriculture and the share of subsidies in accordance with the agricultural income act.

	Level in 1988 FIM million	Level in 1989 FIM million
Income		
Target price products	16 267	16 600
Other products	3 635	3 468
Subsidies	2 076	2 382
	<hr/>	<hr/>
Total	21 978	22 450
Costs, total	16 043	17 301
	<hr/>	<hr/>
Net income	5 935	5 149
Subsidies %		
of total income	9.5	10.6
of net income	37.0	46.2

Appendix contains more detailed information on the amounts of various subsidies and their breakdown in recent years.

#### 4. Financing of agricultural investments

The government provides financial assistance for the acquisition of farms and their investments mainly in the form of long-term low-interest loans. Lending is based on the Farm Act of 1977. The Act aims at improving the structure of farms and safeguarding livelihood on family farms. Some FIM 6 500–7 000 million is provided annually for changes in ownership generation and investments. Government subsidized lending accounts for some one-third of investments (excluding investments in machinery).

The bulk of low-interest loans comes from banks' own funds. The government pays an interest subsidy on these loans. A special agricultural development fund grants government loans mainly for the central and northern parts of the country and for small farms. Compared with loans with interest subsidy, these loans have the added advantage of a slightly longer repayment period. A total of some FIM 1 500 million in low-interest loans is granted annually.

The interest rate on government subsidized loans for farms is about half of the market rate, i.e. 3-7%. The repayment periods range from 5 to 20 years. Loans with the lowest interest rate and longest repayment periods are granted to farms in northern Finland.

Cowsheds are the major investment target in northern Finland. The loan granted for them may amount to 60% of building costs. In addition, direct building assistance is granted for this area so that the financing of a building project may be almost fully subsidized by government. Low-cost loans have helped to keep cowshed investments at a relatively high level in northern Finland. Nevertheless, the number of farms continues to fall in Lapland, too. Traditional milk production will not be sufficient to keep wide regions of Lapland settled in the coming years.

## 5. Small-scale rural industries

Social change and economic growth have created potential for more varied enterprise in rural areas. Increased leisure time and economic independence have a similar effect.

For many years now, the government has granted financial support to small businesses in rural areas. Since 1987, grants and low-interest loans have also been granted for supplementary livelihood carried out on farms. Typically, these include small-scale tourism and contracting, such as machine repair, sawing, excavators, etc. and the generation of domestic energy. Tourism, in particular, is still a growing industry in northern Finland.

Investments in reindeer husbandry and other natural industries (berry picking, hunting and fishing) are subsidized with loans and grants. They are subject to separate legislation.

## **6. Other measures**

In order to maintain a balance between the production and consumption of agricultural products, livestock raising, in particular, is restricted throughout the country. Milk and egg production are subject to a farm-specific quota system. A permit from the authorities is required for the establishment or expansion of domestic animal units; in the last few years, only a few permits have been granted. Restrictions have been less strict in eastern and northern parts of Finland. This is essential for the development of farm structure, since the inclination to give up farming is greater than average in these areas.

## **7. Future prospects**

Northern Finland can remain viable only if the region's population base is large enough. This again requires that business in the region is strengthened and diversified. The traditional occupation of Lapland will always maintain an important position. However, their relative importance may decline, for instance because of the good growth potential of tourism. The partly wild and unpolluted nature of northern Finland provides good potential for varied economic activities. The government's role in the future is to see to it that the potential for favourable development is kept up.

## Appendix

## PRICE AND RELATED SUPPORTS TO AGRICULTURE IN 1988

		Fim million
1. Support paid according to farm size		630.3
2. Price supports varying by region, of which:		578,3
- Milk production subsidy	228.9	
- Meat       - " -	144.8	
- Subsidy paid on number of livestock	145.3	
- Production bonus for ind.pot.	8.6	
- " -       rye	3.5	
- " -       feedgrain	39.6	
- Transport subsidy for meat	0.5	
3. Other price supports, of which:		799.2
- Milk price supplement	456.8	
- Production bonus for meat	206.5	
- Price supplement for eggs	135.9	
4. Other support		272.7
- Transport subs. for milk	36.0	
- Support to sheep farming	1.0	
- Price subsidy for eggs	21.7	
- Freight subsidies	8.6	
- Support for sugar prod.	201.1	
- Consolidation of producer price for potatoes etc.	4.3	

## DISTRIBUTION OF SUPPORT ACCORDING TO FARM SIZE IN 1988

	Fim million
SOUTH-FINLAND	98.1
MIDDLE-FINLAND	243.1
NORTH-FINLAND	288.9
of which:	
South-Zone	216.2
Middle-Zone	61.0
North-Zone	11.7
<hr/> TOTAL	<hr/> 630.1

## SUPPORT ACCORDING TO FARM SIZE

	1986	1987	1988
- Number of farms (1000)	104.2	85.0	74.1
- Support, Fim/farm	5590	6511	8504
(average, highest in the North, lowest in the South)			

## PRISE SUPPORT BY REGION EXCLUDING THE SOUTH

- Milk Production subsidy, average 0.123 Fim  
Variation 0.690-0.045-0 Fim

- Beef production subsidy  
  . Over 140 kg, Variation 9.60-8.50 (North)  
  . Over 170 kg, Variation 6.30-0.55 (Middle)

- Subsidy paid on number of livestock

	1986	1987	1988
. Number of farms (1000)	36.3	35.0	30.6
. Subsidy Fim/farm	3421	3651	4748
. Only in North and Middle Finland			
. Subsidy per animal unit (=corresponds 1 cow) in the North 1595 Fim, in the Middle Finland 990-140 Fim.			



Maija Puurunen

The northernmost experimental farm of the University of Helsinki is situated in Muddusjärvi on the 69th latitude.



Master of the experimental farm agr. Asko Hannukkala told about the research work on the farm. Cultivated plants are mostly grass and hay and Lappish *Puikula*-potatoes. There are Finnish sheep and also different fur animals on the farm.

Maija Puurunen



Maija Puurunen

The northern spring was most beautiful for the seminar to have a trip in the Lappish countryside and get acquainted with local agricultural conditions.



Maija Puurunen

The snow was smelting exceptionally early and the river Ivalo run fast into the lake Inari.

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## AGRICULTURAL POLICIES TOWARDS LESS DEVELOPED REGIONS Policy Issues and Instruments; The Experience of Poland

### 1. Concepts of Regional Policies, including Problems of Less-Favored Areas

The term "regional policy" generally refers to the concepts and instruments employed by governments or by regional authorities to reduce regional differences in levels of economic and social development. Regional policy is thus in particular concerned with the development of the particular countries' less-developed areas and the instruments used range from economic, legal, social to strictly technical programs and actions. A comprehensive review of European policies concerning regional development in economically less-favored areas has been presented, basis the experience of many years' international cooperation, by the Working Party on Agrarian Structures and Farm Rationalization of the Committee on Agricultural Problems of the Economic Commission for Europe and the Food and Agriculture Organization of the United Nations<sup>1)</sup>. The main social, economic and other objectives of the national policies were summed up by J. Pic, as follows:

1. Furtherance of economic equality between regions (especially as regards incomes) and the increase of the regions' capacity to contribute to national prosperity;
2. Balancing population development and provision of (permanent) employment in less-favored areas;
3. Reduction of differences in living conditions between regions and provision of all essential services.

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1) Concepts of Regional Policies, including the Specific Problems of Less-Favored Areas, Report no. 6, authored by Professor J. PIC of the Agricultural Institute, Prague, Czechoslovakia, in accordance with the decision of the 8<sup>th</sup> Session of the FAO/ECE Working Party on Agrarian Structures and Farm Rationalization (FAO/ECE/AGRI/WP.3/22) Geneva, 1988.



The actual principal goals of particular Governments' rural regional policies include, on one hand the major objectives of their overall regional policies, on the other, objectives elaborated specifically for the less-favored regions. The latter may be listed as follows<sup>2)</sup>:

1. Correction of incomes' variations between the less-favored rural areas and the other parts of the country, through improving agricultural incomes;
2. Shaping settlement and population patterns in rural areas by ensuring equal opportunities for economic, social and cultural development;
3. Facilitation of the development of agriculture in less-favored areas by means of financial support, through measures to improve soil fertility, land reclamation and general improvement of working conditions;
4. Creation and support of new activities, in particular labor-intensive, in order to provide incomes and employment opportunities in the less-favored regions;
5. Improvement of the quality of rural life, reduction of disparities in living conditions, improvement and development of the landscape and protection of the natural and cultural environment.

The above presented brief summary of international European experience in rural development policies, oriented at less-developed areas, provides a good framework and indication for research and discussions on relevant issues in the particular countries.

## **2. Regionalization of Agricultural Policy in Poland – Present Concepts**

Poland does not belong to countries with great regional differentiation of agriculture, the differences between regions remaining however well marked<sup>3)</sup>. As the principal conditions affecting the spatial differentiation of agricultural development in Poland the following may be listed:

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2) Ibidem, p. 2 et. fol.

3) Poland: Principles of Regional Policy and Particular Problems of Less-Favored Regions. S. GBURCZYK, Institute of Agricultural and Food Economics, Warszawa, FAO/ECE/AGRI/WP.3/R.70, Geneva, 1986.

1. Low quality of soils, in particular in northern and central parts of the country, coupled with variations of climate;
2. Dispersion of farmland (fragmented landspread) in south and eastern parts of the country, as result of historical circumstances;
3. Quality and quantity differences in resources of farm labor; this manifesting itself in with excessive masculinization of the labor force in regions undergoing depopulation and excessive feminization in regions of intensive urban migrations;
4. A large and growing number of farms without successors;
5. Shortages of water for farming purposes and for rural households;
6. Disproportions in equipment and supply with farm, production inputs, the latter partly arising as effect of deliberate administrative allocation decisions, these linking supply of short inputs to commercial sales of farm products.

Research by S. GBURCZYK for the early 1980's, basis data from the Institute of Agricultural and Food Economics farm bookkeeping network (a representative sample of 2,500 peasant farms in all area groups and country regions) has shown that with significant regional differentiation of farms according to size and a strong regional differentiation of farms by value of fixed production assets per area unit, the production results themselves were less differentiated<sup>4)</sup>. Little linkage was as well found between natural conditions and crops selection (see Annex).

Regionalization of agricultural policy or more broadly, a new look at spatial development policies from the point of view of agricultural and rural development, have in the second half of the 1980's become a major political and economic issue in Poland, as witnessed, i.e., by the resolutions of the 10th Congress of the ZSL United Peasant Party (March 1988)<sup>5)</sup>. A generally accepted assessment of the actual situation indicates far reaching development disproportions throughout the countryside, wasted chances for growth, a serious menace of regions' depopulation and degradation of agriculture in some parts of the country. Regional development, obviously seen as a part of an overall spatial development policy, must comprise on one hand efforts at a rational spatial allocation of the available production resources, on the other, a program aimed at reducing disparities in the standard of living of the population in the particular regions. Obviously, one ought not expect an identical level and composition of factors affecting the standard of living in the various regions, secondly this reduction of disparities should not become a fetish.

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4) S. GBURCZYK, *ibidem*.

5) This part draws on the paper by J. St. Zegar: *Regionalizacja polityki rolnej /istota i propozycje rozwiázan/ (Regionalization of Agricultural Policy /Nature and Propositions of New Solutions/)*, processed paper, Institute of Agricultural and Food Economics in Warszawa, 1989.

Presently in Poland, the following are enumerated as the major targets and goals of regional policy, in particular from the point of view of agricultural and rural development;

- 1) optimal employment of the available natural resources, taking into account, in addition to material values, also recreational, environmental, landscape considerations;
- 2) rational development and organization of spatial arrangement of production and settlements, respecting demands of nature conservation;
- 3) overcoming regional disparities of historical origin, in the Polish case, this being the result of the more than a century long incorporation of Polish lands into respectively Austria, Prussia and Russia;
- 4) conservation of the natural environment and offsetting industrial and urban pollution and degradation; in the Polish case the foremost impact is of accelerated industrialization in the 1950–1980 period.

#### Regional Differences of Farmland Quality and Productivity and Economic Performance

Data from the farm bookkeeping system (a 2,500 farm, voluntary, representative sample, run by the Institute of Agricultural and Food Economics in Warszawa for over 60 years now) indicate clearly that while high quality of farmland does not automatically entail high productivity, then on the other end low quality of farmland is a serious deterrent in yields improvement. Research has shown that farms located on better quality soils achieve superior production and economic results. This lead is the greatest as concerns farmland use efficiency, lower as concerns farmland productivity and lowest as concerns labor remuneration. Thus farms located on good soils achieved production added per hectare three fourths higher compared to farms on poor soils, final production respectively 65 percent higher and agricultural income per person fully employed 35 percent higher. Farms using poor quality soils seek to defend their economic status by increasing farmland area, which, i.e., is favored by availability of technique. As effect of this their average size has increased between 1975 and 1985 more rapidly than the corresponding overall figure, with clear extensification of production.

A peculiarity of Polish agriculture is that we find a spatial concentration of traditionally high farming culture, agricultural market production development and linked to this, higher supply of industrial inputs (fertilizers, feedstuffs), improved water economy systems. This concentration does not coincide with quality of natural farming conditions.

Farm bookkeeping data permit to observe that the gap between farms located on the best soils and those on the poorest ones is not increasing in recent

decades in Poland, the highest production growth being recorded in farms located on good soils (not on the poorest soils and not on the best soils).

Clearly, the quality of soils is not today a factor of major importance in farming development. A much stronger impact is exerted by the dynamics of agrarian structure, these being affected by the sucking forces of industrialization, by the related demographic situation, by farmers education and training, extension activities etc.

### The PFZ State Land Fund Farmland Bank

In Polish agriculture the PFZ State Land Fund (land bank) is responsible for holding and management and transfers (sales) of farmland. Clear regional differentiation is apparent in its operations. Almost half of farmland in the land bank is concentrated (1987 data) in 10 województwo administrative regions (out of a total of 49). These are more or less the same regions where more than one tenth of farmland in the particular administrative region has been placed at the disposal of the state land bank. One remarks however that these are not all located in the "Eastern Wall" (q.v.), and the sources of the present state of things are quite varied, from demographic problems caused by permanent migrations (to distant, out of region urban centers, in contrast to everyday pendulum migrations of pluri-active families to nearby industrial centers), resulting in unfavorable male to female ratios, particularly in the younger population groups, to underdeveloped agricultural markets and feedback effects of depopulation.

One obtains also a different view if we consider in addition to the relation of farmland placed at the disposal of the PFZ state land bank to the total farmland in the region, also the relation of idle farmland in the PFZ land bank to the total farmland area in the land bank's disposal. The latter situation is characteristics for the weak agriculture regions of central Poland. Still another view is when considering the regions endangered by an excessively large number of farms dropping out of agricultural activities. This is a major problem for the eastern parts of the country.

### Policy Concepts and Scope of Decisions

National development policy decisions affect the agriculture of particular regions in four major aspects <sup>6)</sup>:

1. Development policy decisions concerning the whole national economy but with a varying impact on the particular regions; In this case we have in mind first of all the processes of industrialization and urbanization. An illustration may be the phenomenon of half of private farms in Polish agriculture being found in the so termed regions of intensive commuting to outside agricultural jobs. An attractive market for farm labor outside agriculture serves to improve the labor to land ratio in agriculture. It remains to be seen if the balance of the economic environment will permit to improve the capital to land and capital to labor ratios.

2. Specific decisions and programs concerning regions especially favored from the point of view of agricultural development; at least three regions in Poland may be named (Elblag, Zamosc, Przemysl) where despite very favorable agricultural conditions no progress has been recorded in recent years. Specific state policies are called for, such as investment programs in the food processing industry (disregarding in their preliminary stage costs calculations), support of infrastructural development, agricultural services development programs, programs of specialization of farming.

3. Specific decisions concerning regions with unfavorable conditions for agricultural development; the principal dilemma here is resolving, in view, i.e., of the persisting shortages of food and farm production in Poland, whether from the point of view of the national economy it is purposeful to continue agricultural activities in these regions. Z. GROCHOWSKI in an authoritative forecast of agriculture's development in Poland until the year 2010, proposes to remove as much as 1 million hectares of farmland from agricultural production. This will on one hand permit to increase the presently low share of forests in the country's total area, with positive implications for the water resources balance etc., on the other, it will, permit more efficient utilization of the available inputs in more intensive agricultural regions. The point of the matter are not so much the circulating inputs but the costly, long period of return investment outlays for the infrastructure in such regions. A major task of state programs logically would be thus the support of development of outside agriculture activities in these regions.

4. Decisions concerning areas degraded by economic activities in the past.

The listed policy decisions call for specific instruments to implement them.

#### Development Policy Instruments

In Polish economy conditions the practical principles of realization of regional policies are determined by the Law on Spatial Planning, voted by the Polish Parliament in 1984<sup>6)</sup>. Three types of plans— at national level, at administrative region *w o j e w o d z t w o* level and at the *g m i n a* local government level are elaborated. The major parts are, financed from the respective budgets, investment programs aimed at the region's development. The localization of investment projects is one of the principal instruments of regional policy.

The second most important instrument of agricultural policy, concerning specifically agriculture, is the administrative allocation of production inputs. Within the economic reform implemented in the Polish economy since the beginning of

<sup>6)</sup> Concepts, op. cit., p. 20 et. fol.

the 1980's these administrative mechanisms are gradually losing their past importance but continue to exert an impact still. In a situation of acute disequilibrium on the inputs markets and shortages of farm products, allocation of inputs and procurement of farm products remain rigidly controlled by the central and local level governments. Market mechanisms find their way with the greatest difficulty, not surprisingly after many years of administrative allocation. It is additionally feared that equilibrium oriented prices would serve to aggravate the already existing regional differentiation. From the point of view of the marginal productivity of the available inputs and the maximization of farm production, if these were the sole targets, this would be an acceptable development.

The system of taxation, credits, subsidies plays a rather secondary importance role in Polish regional policy. The land tax, which is the only tax levied on farms conducting solely agricultural production is too low (in relation to output) to be a tool of regional policy. Increasing this taxation has met with unyielding resistance of farmers and their political representations.

The regional differentiation of credits is limited to a preference for mountainous regions, this being a part of a specific package of economic instruments preferring these regions, the latter being clearly threatened by depopulation and economic degradation. In mid 1980's regulations permit financing up to 90 percent of the value of the undertaken investment project in mountainous and sub-mountainous areas. In January 1985 the Council of Ministers of Poland passed a decree concerning the social and economic activation of agriculture in the mountainous and sub-mountainous regions. Settlements in 14 southern Poland (out of a total of 49 in the whole country) w o j e w o d z t w o administrative regions are included in this preferred category if more than 50 percent of the farmland is situated at an altitude exceeding 350 meters above sea level or if 50 percent of the farmland is on hills with slopes exceeding 12 degrees. The regional authorities are obliged to undertake development programs in infrastructure, from water supply systems to anti-erosion, development of small, local industries as well as the recreational industry.

The decree of the Council of Ministers introduces also additions to the official procurement prices for farms products, e.g. the price of cows' milk is some 30 percent higher compared to that in the balance of the country, the price of veal and beef 20 percent higher, price of wool 10 percent higher. Production lines are thus supported which are recognized as suitable for extensive sub-mountainous farming.

In mid-1988 Edward Brzostowski, the successful creator and manager of the IGLOOPOL Industrial and Agricultural Combine, has been nominated by the Polish Government as special plenipotentiary for the development of agricultural and industrial combined organizations and rural development. In addition to research and policy formulation this new office is targeted at stimulation of integrated development of rural industry, services and agriculture, with special support programs for rural infrastructure. The new office is to concern itself in particular with the problem agricultural areas, termed as the "Eastern Wall", on the eastern border of Poland.

### 3. The Depopulation of Northern and Eastern Poland

In mid 1980's a major public concern has become the depopulation of northern and eastern parts of the country. This concerns the Suwalki, Bialystok, Biala Podlaska, Chelm, Zamosc and Przemysl wojewodztwo administrative regions. This area of concern, according to M. SERWIN, comprises some 41 thousand square kilometers (12.8 percent of the country's total area), where 6.8 percent of the country's population lives – 2.5 million persons but 9.8 percent of the country's rural population<sup>7)</sup>. This region is characterized by a lower, compared to the whole country, rate of urbanization, a higher share of the population engaged in agriculture, a lower level of past investment outlays, a lower density of communication networks, poorer infrastructure.

The region has experienced many years of outmigrations; while in the industrialization period of the first half of the 1950's this concerned whole families, later on, it was the young, educated labor which moved out of the countryside. This has resulted in a higher than national average share of elder population groups (amounting to half of the population in some communities), negligible demographic growth, an aged farmer population, a high ratio of men to women in the younger population age groups, this hampering starting farmer families.

The region suffered in the past of presently from the policy of administrative allocation of inputs to regions of market oriented agriculture. An obvious vicious circle appeared, with farms stagnating as effect of shortage of inputs, while markets remained underdeveloped because products for sale were not available on one hand, and the purchasing power on the market did not encourage production and sales growth. The 6 administrative regions in question definitively have

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<sup>7)</sup> SERWIN Mirosław: Wyludnianie się obszarów przygranicznych Polski północno-wschodniej (The Depopulation of North-Eastern Poland), in: *Wies Współczesna/ the Countryside Today* monthly journal/, no. 10, 1987, pp. 80–91.

been in the past and still are presently discriminated against in the central and regional governments farming inputs allocation decisions, in particular short supply of fertilizers, industrial feeds etc.

In recent years, in the course of the economic reform implemented since early 1980's, government subsidies to farming inputs have been markedly reduced; nevertheless the impact of past policies in this area remains. Regions of strongly market oriented agriculture, which were allocated a larger share of inputs, would in effect – though quite unintentionally – benefit as well from the involved subsidies to these industrial origin inputs.

The state of agriculture in this region is clearly inferior to that in the other parts of the country. Yields are markedly lower, idle lands are (as we have remarked earlier) a problem in the PFZ state land bank. Poor soils are a reason for stagnation only in the northern part of the region under discussion, the southern part having some of the country's best soils. The aforementioned distorted age and sex composition of the population are of greater impact. Parallel is the negative impact of the historical fragmentation of peasant farmland in the south-eastern part of the country, with little chance of persuading the aged farmers of the need to change this state of things<sup>8)</sup>. Erosion of farmland, on an estimated area of 250 thousand hectares in the Krosno, Przemysl, Zamosc and Suwalki regions is another barrier<sup>9)</sup>.

The early 1980's changes in the national farmland management and sales policy, removing the past preference for state and cooperative farms, at the expense of private farms proved short lived in this region. Private farmers, overwhelmed by the costs of investment entailed in creation of a big farm, easily sold off land or neglected it. The regional government, in the Bialystok region in particular, undertook an expensive program of starting state farms on idle or abandoned farmland. This was based on a decree by the Council of Ministers on management of farmland in eastern and north-eastern parts of Poland (No 129/87 of 26 August 1987). The corresponding program foresees the creation, with central state budget support, the creation of 11 state farms, which are to

8) An urgent need to consolidate fragmented peasant farmland is a general problem in Polish agriculture. It is assessed by the Ministry of Agriculture and Food Economy that such consolidation is called for on some 2 million hectares (out of 13 million hectares total in private farming). Recent (1989) changes in legislation have modified formal conditions of farmland consolidation, removing past preferences for state and cooperative farms, at the expense in the past of private farms, introducing market mechanisms into farmland trade.

9) WIESLAW ANTONIAK: Gospodarka ziemia w wojewodztwach wschodnich (Farmland Policy in Eastern Parts of Poland), in: *Wies Wspolczesna/the Countryside Today journal*, no. 10/1988, p. 89 et. fol.



bring back to agricultural production 12 thousand hectares of farmland abandoned by private farmers. It is well recognized that the creation of new state farms is the most expensive form of utilization of idle farmland. The cost of overtaking by a state farm of a hectare of idle farmland was assessed in 1988 prices at 1 or in some cases even 2 million PLZ; this was four times the estimated figure for peasant, private farms<sup>10)</sup>. This is viewed as a necessity; in the Bialystok region for every 100 private farms dropping out of production only 10 new ones are created, the corresponding figures for regions of good agriculture being 60–70 farms. Even at such high cost the state farms in the region are capable of overtaking only one tenth of the idle farmland in the PFZ land bank. The created state farms use the land very extensively, with low crop yields and a low number of livestock per area unit, thus final farm production per hectare is low, below the state subsidies for regional development.

The regional authorities and the managers and workers of state farms see potential for development in integrated operations, which would bring profit not so much on the basis of farm production but rather in the downstream stages of food processing, farm-based tourism, restaurants, auxiliary operations like fish farming, forests and wood processing ventures, etc.

A possible compromise solution, supported by agricultural policy in recent years, is long term leasing of farmland managed by the PFZ land bank to private farmers. The PFZ land bank by law is obliged to take in farmland given up by farmers in exchange for retirement benefits, sold off or simply abandoned. Though traditionally leasing farmland in Poland was considered an inferior form of land management, recent stabilization of relevant regulations, guarantees of security provided for tenants, have made this a more attractive form of land management.

#### **4. Development Potential for Less-Favored Areas**

We will only list some phenomena enumerated by various authors, constituting factors for the less-favored regions development potential. Firstly, these are as a rule relatively little polluted regions, as result of a relatively lower level of economic development in the past. Thus they offer potential for development of tourism, recreation, nature related activities. Secondly, stagnant demand for farmland represents an opportunity for creation of large area, extensive farms, with production composition adjusted to local land to labor to capital ratios.

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<sup>10)</sup> ANTONIAK, op. cit., p. 93 and 95.

Pluri-activity is recognized as an economic and social phenomenon which offers great chances for regional development policies in less-favored areas. International research projects indicate that the combination of agriculture with various other occupations - farm tourism, aquaculture, fur animals breeding may be a useful policy instrument, resolving income generation, infrastructure maintenance problems<sup>11)</sup>.

Various types of programs and instruments have been tested in this area in European countries. Some major thresholds and barriers are well apparent by now. Firstly, development beyond a preliminary stage of rather simple (and low standard, thus with limited market potential) services based on the existing agricultural base, calls for expensive investment. Central and regional governments support, e.g. through subsidized credits, such development programs. In further stages, marketing becomes necessary, as well as, gradually, specialization of the auxiliary activities, whether farm tourism or fish farming. Environmental problems become a constraint much sooner than was originally expected. The regions' cultural, community heritage becomes easily threatened, with foreign consumption and life style patterns demonstrated on a large scale.

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<sup>11)</sup> Agriculture and Fish Farming. Proceedings of a Symposium organized by the Food and Agriculture Organization of the United Nations and the United Nations Economic Commission for Europe and the Institute of Agricultural and Food Economics in Warszawa, 1-13 May 1988; Final report, Warszawa, 1988.

## A n n e x

### Selected Indicators Showing Regional Differentiation of Private, Peasant farms in Poland in 1983

Source: Poland: Principles of Regional Policy and Particular Problems of Less-Favored Regions. S. GBURCZYK, Institute of Agricultural and Food Economics, Warszawa, FAO/ECE/AGRI/WP.3/R.70, Geneva, 1986.

Table 1. Selected indicators showing regional differentiation of peasant farming in Poland  
(National average = 100)

	Capital	M A C R O R E G I O N S							
		North east	North	South	South east	Mid east	Middle	Mid east	South west
Coefficient of soils quality	91	90	98	98	109	111	91	95	101
Average area of farms	112	166	148	72	64	91	100	132	108
Input of labor per farm	108	116	101	101	91	98	100	101	101
Input of labor per hectare	96	69	69	140	140	107	99	76	93
Use of NPK fertilizers per hectare of farm land	79	71	95	127	95	91	108	126	124
Tractors per 100 farm	83	102	127	148	78	83	90	137	110
Tractors per 100 hectares	74	61	86	206	119	90	89	103	101
Yields of grains	84	87	110	112	100	98	88	114	119
Yields of potatoes	94	105	111	102	111	117	88	91	107
Yields of sugar beet	86	96	116	89	108	113	95	93	92
Milk yield per cow	102	97	108	103	93	101	107	98	104
Final production per farm	92	125	133	89	74	95	94	146	116
Final production per hectare	82	75	90	124	115	105	94	111	107
Agricultural income:									
- per farm	91	131	133	91	78	101	93	130	116
- per hectare	82	79	91	128	123	112	95	100	108
- per work day	84	113	131	90	86	103	93	129	115
Effectiveness of production <sup>a</sup>	89	107	117	95	90	102	96	116	110

<sup>a</sup> The final production per unit of the total outlays of labor and capital, i.e. the conventional remuneration of labor + purchased material inputs and services and amortization of fixed assets + conventional cost of using farm land, taking into account the quality of the latter.  
Source: Calculated by the Author on the basis of farm accounting network statistics for peasant farms for 1983.

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## PROBLEMS OF COMPETITIVENESS AND EFFICIENCY IN HUNGARY ON LARGE-SCALE FARMS IN RESOURCE POOR AREAS

Earlier, most of the prices for agricultural produce in Hungary used to be either officially set fixed prices, or prices moving within strictly defined bands. Today, over half of the prices for such agricultural produce still belong in this category.

Due to the pricing principles and the reference price, producer prices do not allow for profits to be made on poorer than average soil, or in other words, revenues fail to cover costs incurred. Therefore farms in resource-poor areas receive subsidies from the government. The criteria for the "resource poor" category was reviewed several times in recent years which always meant new additions to the numbers of subsidized farms.

Between 1980 and 1987 subsidies to disadvantaged farms were doubled, accounting for a quarter of all agricultural subsidies. The actual amount of such subsidies depends on the volume of agricultural production/sales and contains no incentives towards efficiency improvement. Revenues derived from crop production and from keeping ruminants are supplemented by 3-28 % of subsidies subject to the quality of arable lands, while other sectors of animal husbandry receive 3-12 % in subsidies.

Disadvantaged farms may require subsidies either for social policy considerations or for production purposes. To this day, emphasis has always been put on the latter while offering the argument that produce coming off these farms are also needed to satisfy domestic demand and to fulfil export contracts. In our view, competitiveness, social policy aspects as well as comprehensive relationships affecting the national economy of the country would have to be contemplated to decide the issue. A study analysing the efficient use of resources and relative rates of protectionism, produced in the Research Institute of Agricultural Economics, by adapting a World Bank methodology, could offer some clue. Now, I would like to sum up the major findings of our research work affecting three disadvantaged areas in Hungary.

The farms in these areas are engaged in as many sectors of agricultural production as any other farm elsewhere. However, their yields in crop production fall behind the national average, therefore their profitability of production is also lower despite the subsidies.

The profitability of animal husbandry is unfavourable at the national level, so subsidies given to farms in the resource poor areas merely lower their losses.

Average domestic producer prices (without subsidies) are around the national average in these regions and their nominal protection coefficients are also similar (see Table 1).

Table 1. Nominal Protection Coefficients (NPC) as the average for 1984–1987

Description	Regions under analysis			National average
	1	2	3	
Wheat	0.68	0.61	0.63	0.68
Corn	0.81	0.86	0.77	0.83
Autumn barley	0.70	0.87	0.83	0.74
Spring barley	1.14	–	–	1.10
Sunflower	0.86	0.93	1.02	0.90
Sugar beet	1.29	1.12	–	1.08
Milk	0.80	0.78	–	0.75
Slaughtering cattle	1.31	1.42	–	1.30
Slaughtering pig	–	1.46	–	1.40
Slaughtering sheep	1.68	1.30	–	1.21
Broiler chicken	–	1.32	–	1.30

As compared to international prices, negative protectionism can be noted in the domestic prices for cereals, sunflower and milk, while positive protectionism can be noted in the prices for slaughter animals. The domestic prices for inputs (materials and machinery) more and more exceed international prices -- with the only exception of grain feed production -- which triggers unjustifiable cost increases and lowers profitability. Because of relatively low prices for cereals in Hungary, grain feed dominates in domestic cattle production, although the heavy reliance on grain feed pushes up domestic resource costs and deteriorates international competitiveness.

That is why effective protection coefficients, calculated for value added, reflect even greater preferences for animal products than the actual prices for crops (see Table 2). The negative values indicate that international prices for the produce fail to cover even material costs. Nevertheless, production was not cut back in these sectors.

Table 2. Effective Subsidy Coefficients (ESC) as the average for 1984–1987

Description	Region under analysis			National average
	1	2	3	
Wheat	0.56	0.67	0.59	0.58
Corn	0.62	0.81	0.63	0.82
Autumn barley	0.51	1.22	0.85	0.63
Spring barley	1.47	–	–	0.91
Sunflower	0.85	1.43	1.20	0.97
Sugar beet	1.38	1.28	–	1.30
Milk	10.6	1.70	–	1.02
Slaughtering cattle	8.23	negative	–	7.17
Slaughtering pig	–	2.72	–	5.79
Slaughtering sheep	3.02	2.25	–	2.71
Broiler chicken	–	2.05	–	negative

The costs of primary resources did not change substantially in the years under analysis. As for assets tied up in production, current assets increased in all sectors. The deterioration in the financial status of farms and their growing demand for short-term loans to finance current assets must be attributed to the worsening agricultural terms of trade.

The value of domestic resources expended on a unit of produce depends greatly on yields. Lower yields are made somewhat more appealing by the fact that they require lower provisions and production is more extensive than the national norm.

The return on domestic resources per unit of net foreign exchange earnings (i.e. value added calculated at international prices) is most favourable for wheat, corn, sunflower and milk. The sequence of the above commodities implies an order of relative merit as well (see Table 3).

Table 3. Domestic Resource Costs (DRC) as percentage of the USD exchange rate, average for 1984–1987

Description	Regions under analysis			National average
	1	2	3	
Wheat	111	83	99	70
Corn	135	95	86	86
Autumn barley	281	249	140	76
Spring barley	279	–	–	112
Sunflower	169	128	136	86
Sugar beet	247	229	–	345
Milk	116	159	–	120
Slaughtering cattle	1.223	negative	–	894
Slaughtering pig	–	364	–	571
Slaughtering sheep	395	198	–	107
Broiler chicken	–	199	–	271

They have comparative advantage in wheat and corn production. In some regions, milk and broiler chicken production is more favourable than the national average.

The comparative disadvantage of slaughtering cattle production is rather great at the national level. The situation in the areas under review is even worse.

Poor competitiveness of slaughtering sheep production in all three regions is caused by the high ratio of grain feeding, which appears to be cheap at domestic prices but is an expensive technology at international prices. All in all, Hungary's pricing system provides no incentives to improving international competitiveness.

Our analyses have called attention to the fact that profitability of a product at a farm level may not automatically mean the same in terms of international competitiveness. Of course, the statement is true the other way round as well. The variations in farm data indicate, however, that there is real scope to improve the efficiency of agricultural production. Some of the large-scale farms can produce fair results, while all the rest are unexplicably poor performers. And as proven by hard facts, the methods, hitherto used, have failed to help them catch up.

When using relatively favourable 1984 data, we have found that at normal grain prices (i.e. at USD 130–150 per ton) wheat and corn production has comparative advantages in all three regions. Therefore, the conclusion is that subsidies granted because of their disadvantaged status brought benefits from an economic point of view and cannot be considered as real subsidies. The current trend of rising export prices confirms the correctness of this statement for the present as well. Of course, comparative advantages within the regions are greatly differentiated, there being comparative disadvantages in case of lower yields.

The picture for animal products is more complex. When reviewing subsequent years, improvements in efficiency can be traced parallel with improvements in international prices, having hit rock bottom. Based on the coefficients, the slaughtering cattle sector would need a thorough shake-out or, if it would fail to bring results, it would have to be cut back.

Farms with better ratios have lower figures for grain feeds in the cattle sectors, while the share of bulk fodder is higher in their feeding regimes. This could be a possible route to improving international competitiveness for sheep producers as well. As grasslands can be increased in the regions under analysis by discontinuing crop production on the poorest quality soils, the "background" for the production of ruminants can be expanded substantially, thereby rendering production more favourable.

As for milk production, selective development is justified. Domestic milk production is not as unfavourable as one would think considering subsidies, if it is compared to international prices. A further advantage can be gained via savings in transport costs if the sector would focus on supplying local areas which is not reflected in the coefficients used in the analysis. On farms, however, where milk is produced at a substantial loss despite subsidies (which were built into prices as from 1989), herds would have to be selectively culled and/or production as a whole cut back.

So, of the sectors of agricultural production, primarily grain production can satisfy economic requirements in the disadvantaged regions. However, the farms themselves do not realize this under the current pricing and subsidy system since the supplementary subsidies cannot but lower their losses. The lack of competitiveness in animal husbandry characterises not only these regions but the country as a whole, consequently the disadvantages are not triggered by poor natural conditions



Considering the above, a selective development policy is deemed necessary in which the following considerations would prevail:

- The poorest quality sections of arable lands, whose proportions differ from farm to farm, should be withdrawn from crop production and they should be planted with forests or grasslands should be established there. As a result, grain production could be rendered more profitable over the remaining areas, similarly to bulk fodder and cash crop production over smaller areas.
- Both in arable land crop production and in animal husbandry, the intensity of production, asset utilization and breeds should be selected that are better geared to local conditions and would differ from general (i.e. technically orientated) technologies.
- As a result in changes in land utilization, feeding conditions would improve, primarily for ruminants. Demands on international markets favour sheep production, rather than cattle production. Competitiveness may substantially improve in both sectors of animal husbandry if bulk fodder is substituted for grain feeds, ie. extensive feeding regimes are adopted.
- Due to wide variations in farm results, farm-specific solutions are required to render production more profitable. The key issue is to offer incentives to farm workers. For these purposes everything should be considered from new methods of labour organisation on large-scale farms to pursuing production in family units.

Calculation of price-differences and foreign market competitiveness

1) Nominal Protection Coefficient (NPC)

indicates the difference of domestic and foreign market prices:

$$NPC_i = \frac{P_i^d}{P_i^b \cdot c} \quad \text{e.g.} = \frac{\text{Forint/ton}}{\text{USD/ton} \cdot \text{Forint/USD}}$$

where:  $P_i^d$  = domestic producer price of  $i$  product in domestic currency

$P_i^b$  = export or import price of  $i$  product fob Hungarian border in a foreign currency (in case of an exporting country the export, in case of an importing country the import price)

$c$  = official exchange rate (it can be also the shadow-rate)

This aggregate-indicator shows the relation of production value calculated using domestic, respectively, world market (export or import) prices.

If  $NPC \sim 1$  = price levels are not different, i.e. domestic prices follow foreign market prices.

$NPC > 1$  = there is positive protectionism, incentives are operating for production and export.

$NPC < 1$  = there is negative protectionism; production is limited and incentives operate for importing.

2) Effective Protection Coefficients (EPC)

Price differences net of the price difference of inputs, measured by value added (VA)

$$EPC_i = \frac{P_i^d - \sum_{j=1}^k a_{ij} \cdot P_j^d}{(P_i^b - \sum_{j=1}^k a_{ij} \cdot P_j^b) \cdot c} = \frac{VA_i^d}{VA_i^b \cdot c}$$

where:  $a_{ij}$  = volume of  $j$  material used for production of  $i$  product

$P_j^d$  = domestic price of  $j$  material

$P_j^b$  = export-import fob price of  $j$  material in foreign currency

VA<sup>d</sup> = value-added calculated with domestic prices

VA<sup>b</sup> = value-added calculated with foreign market prices

The calculation includes all material belonging to the competitive-sphere:

- in crop production: seed, fertilizer (different kinds), pesticides, energy (different kinds), amortization (machinery, buildings)
- animal production: feed (the valuation of non-competitive forages that use arable land is made on the basis of substituting crops), energy, amortization.
- processed products: raw material (or competitive material used for producing these), energy, amortization.

The value of non-competitive material is considered at a different place.

### 3) Effective Subsidy Coefficients (ESC)

An indicator of effective price difference net of subsidies

$$ESC_i = \frac{VA_i^d + S_i}{VA_i^b \cdot c}$$

where: S<sub>i</sub> = producer subsidies for product i net of product-specific taxes

Economic information contained in EPC and ESC indicators is the same as in NPC.

### 4) Domestic Resource Costs (DRC)

An indicator of the returns of primary resources (labor, capital, land) and of foreign market competitiveness

$$DRC_i = \frac{RC_i + m_i}{VA_i^b}$$

where: RC = cost of primary resources, calculated on the basis of opportunity costs.

- labor: minimum alternative: labor  
maximum alternative: social cost of labor
- capital: capital used multiplied by the interest rate
- land: capitalised value of land used (the ratio of land rent and land value or the interest on bank deposits was used in the calculations)

m<sub>i</sub> = value of non-competitive material

Evaluation of the DRC indicator:

if  $DRC_i$  value  $> c$ : comparative position of the production of  $i$  is unfavourable;

$DRC_i$  value  $< c$ : production of  $i$  has favourable comparative position in international comparison

DRC indicator shows whether the comparative position is favourable or unfavourable; the measurement is done by the NEB indicator

5) Net economic benefit or loss indicator for a unit produced

$$NEB_i = VA_i^b \cdot c - (RC_i + m_i)$$

Different products can be compared by the per hectare NEB indicator.

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## REINDEER HUSBANDRY IN FINLAND

Reindeer husbandry has a centuries old history in Finland. Written records are available since the 17th century, when the numbers of animals were estimated for taxation purposes. It seems unlikely that there was any kind of organized reindeer management in those days; it was still too early for written rules and regulations.

By around 1750, reindeer management probably covered the same area as it does now, that is, the lands north of the River Kiiminkijoki. The reindeer herders always kept one step ahead of the legislature and kept the initiative firmly in their own hands. A good example is the case of the men from Pudasjärvi, who in 1769, in the absence of any rules, drew up between themselves a reindeer husbandry agreement describing the rights and duties of the reindeer herders. The regulations of the agreement were enforced by making anyone who broke them 'liable to a fine of so and so many silver thalers'.

In 1898, the Senate passed a law referring to reindeer management on forest lands owned by the state and ordered reindeer owners to set themselves up as reindeer herders' organizations. These regulations were amended in 1916, which is when the present reindeer husbandry area was defined and a state grazing charge based on the number of reindeer was levied. The first Reindeer Management Act and Statute were passed in 1932 and revised in 1948. The last revision was in 1968.

### **Reindeer management area**

The Reindeer Management Act passed in 1948 sets the reindeer management area as the northernmost part of Finland, north of the River Kiiminkijoki. The Act and Statute also define the rights and duties of the reindeer owner.

### **Reindeer owners, reindeer herders' organizations and the central association of reindeer breeders**

A Finnish citizen living in the reindeer management area and a reindeer herders' organization (*paliskunta* in Finnish) may own reindeer, irrespective of who owns the land. For practical work and administration, the reindeer management

area is divided into 56 reindeer herders' organizations. The area covered by a reindeer herders' organization consists of the natural grazing lands of the reindeer within set limits in a district. It is also an administrative unit with a board and chairman.

Local reindeer owners are all shareholders in the organization in their own area. The statutory central body is the Central Association of Reindeer Breeders (*Paliskuntain Yhdistys*), which supervises and directs reindeer husbandry in Finland and handles relations between reindeer herders and the state.

### **Reindeer management**

The work of reindeer herders in the field comprises rounding up, counting, marking, sorting, slaughtering and herding. On the fells, the reindeer herders use snowmobiles when the ground is covered with snow to help round the animals up into corrals; in summer and autumn they use motor bikes. In forested areas the round up is done mainly on foot, but in the snowy season on skis. When in the corral, the reindeer are counted and sorted.

For the count the herders first make a mark in the animal's coat with a knife and the book-keeper enters the reindeer beside the owner's name in the records. The book-keepers are bound by oath.

At the sorting, the slaughter reindeer and the strays are separated from the rest. The strays are returned to their own areas.

The animals are killed in field slaughter houses near the corrals. In some cases, there are special vehicles for this purpose. The slaughtering is supervised by a foreman and a veterinary surgeon, who also inspects the meat.

Calves are usually marked in summer. At Midsummer the reindeer are driven into marking corrals, where the calves are caught in any way possible and marked in the same way as their mother. Calves not marked in the summer are done at the autumn and early winter round ups.

Herding involves two different types of work. Out on the fells the herds have to be kept together the whole year round. This makes it easier to get them to move towards suitable grazing and prevents them from straying onto neighbouring organization lands or over the national frontiers. In forestland, herding primarily entails guarding the animals to see that they don't move away from their own organization lands or damage crops.

### Reindeer marks

A mark approved by the Central Association of Reindeer Breeders has to be cut into the ear of every reindeer. The Association keeps a record of all these marks, making it possible to ascribe each reindeer to an owner. The instructions for marking are strictly defined in the Reindeer Management Act and Statute.

### Reindeer fences

Most of the reindeer fences also serve as border fences along national boundaries. Their total length is 1600 km. Their erection and maintenance are seen to by the state, which in practice means the Central Association of Reindeer Breeders.

The corral fences are the property of the Reindeer Herders' Organization that uses the corral for the various management jobs mentioned above.

The protective fencing around cultivated land is erected by the Reindeer Herders' Organizations to protect crops from damage by reindeer.

Finally there are fenced-off enclosures where reindeer are looked after and fed in winter and spring. The number of these has increased in recent years.

### Technical aids

An important aid in the northernmost parts of the reindeer management area is the snowmobile. There are about 800 of these in all. The snowmobile is invaluable to the reindeer herder as long as he uses it sensibly. Otherwise it may turn into a handicap, as it will damage the terrain and wear quickly.

A field radio is a boon to herders, particularly when the ground is snowfree. It saves work and makes it easier for herders to maintain contact with each other when moving around in the forests.

Aircraft are used in the search for reindeer, in summer in particular, as the animals are easy to spot from the air.

The *suopunki* and *vimpa* are used by herders when catching reindeer within the corral. Their use varies somewhat from one part of the reindeer management area to another.



Jukka Kola

Visiting Katajamaa's reindeer farm was very interesting experience for all the seminar participants.



Maija Puurunen

The state subsidies with the farmer's own contribution has made it possible for the successor to have his own reindeer enterprise.





Juhani Ikonen

It was calving time and reindeer farmers were continuously monitoring reindeer herds for wild beasts in forest. The seminar participants could enjoy the farmer's hospitality in the nature and make a closer acquaintance with a domesticated reindeer Liisa.



Maija Puurunen

Reindeers are so called semi-wild animals and graze lichen freely in forests and fells on the reindeer mainagement area. In winter and spring farmers give hay as additional fodder to them.

## Reindeer husbandry today

The total number of reindeer counted at round-ups in reindeer management year 1986-87 was 362 567, of which 133 130 were slaughtered. Their meat amounted to 3.3 million kilos and was worth 101 million Finnish marks.

Number of reindeer on June 15, 1987	
- surviving counted reindeer, 1986-87	183 655
- surviving calves	45 782
- remaining in the forest, about 15%	35 000
- new calves (of about 60% of surviving females)	101 000
Estimated gross number of reindeer	366 000

## Returns on reindeer husbandry

Annual production of reindeer meat in Finland amounts to about 1.6 million kilos. The main products are cold-smoked meat, frying meat, dried meat and sausages. By-products are hides, antlers and entrails. It takes about 300 000 work days a year to achieve this rate of production. Reindeer husbandry is the main or subsidiary source of income of thousands of families in the reindeer management area. The fact that reindeer husbandry takes place in the northernmost development area of Finland, where there are few alternatives for employment, adds to its importance.

## The present situation

A major breakthrough in the 1970s and '80s has been the establishment of reindeer farms and herding grounds. The Reindeer Farm Act provides for the construction of 600-700 reindeer farms within the next few years. Over half of them will be in northernmost Lapland, where the need for homes is greatest. This will make for a big improvement in living conditions. The Act entitles the owner of a reindeer farm to substantial state aid to cover building costs, a development that should improve the financial standing of the families. Over the years vast sums of public money have been spent on housing elsewhere in Finland. It is with some gratification that we see that, under this Act, reindeer herders are given parity with other citizens.

Investment in research and the founding of a reindeer research institute in Lapland are important for the future of reindeer husbandry. We know that research and experimental activities have given a big boost to production in agriculture and cattle farming; the same still lies ahead in reindeer husbandry.

To date, studies in reindeer husbandry have been haphazard and uncoordinated. They have been conducted at various universities, colleges and institutes and have suffered from the lack of an overall plan and direction. It is essential that reindeer husbandry should get its own research institute in the reindeer management area. Only then can we intensify research and experimental activities and so derive some practical benefit for reindeer management. The scope of research is still broad enough to occupy all interested institutes.

Major studies and experiments on damage to crops have been conducted at the Lapland experimental station Apukka under the supervision of Dr. Aimo Isotalo, Reijo Heikkilä and Dr. Arvi Valmari.

The most long-lasting research to date concerns breeding, and has been under way at Kaamanen, Inari, for more than ten years. The study is supervised by Professor Mikko Varo. Another ongoing study concerns grazing. This is being done in conjunction with the inventory of state forestland.

Under the Central Association of Reindeer Breeders an experiment has been conducted on supplementary feeding. Grass cultivations measuring 3-5 hectares were established throughout the 14 subregions of the reindeer management area. The green feed was then put in piles. In the autumn and early winter, the reindeer could then dig up the aftermath for themselves but in late winter or early spring the piled feed was driven out to them on the fells. Results of the experiments have been promising. Supplementary feeding with hay and green feed in late winter and early spring would seem to be the most economically viable way of safeguarding the future of reindeer production.

Parasite-control trials have been conducted at Kaamanen experimental station. Under the supervision of Dr. Eero Tanhuanpää, reindeer have been treated with a phosphorous preparation called Warbex. The reindeer taking part in the trial are now free of warble fly (*Oedemagena tarandi*) and nostril fly (*Cephenomyia trompe*). In autumn 1977 an extensive parasite control trial was conducted on 4000 reindeer in the Poikajärvi reindeer herders' organization. Encouraged by the good results of the trial, most organizations now treat their reindeer against parasites. It seems likely that the problem of parasites will be solved within the next few years.

These are only a few of the studies conducted, so it is clear that progress is being made in the field of reindeer research.

A new reindeer management act and statute are currently being drawn up by a Ministry of Agriculture working group. They should be ready to go into effect before the end of the year.

### **Damage control and compensation**

#### Reindeer killed by predators

In 1980, the carcasses of 1056 reindeer killed by predators were found. In the course of the 1970s the number of reindeer killed rose from 600 to 1500. There has been a slight reduction in the number in the 1980s, with fewer than 1000 deaths being recorded in 1981.

A separate law has been passed referring to compensation for reindeer killed by predators. Under this law, it is the duty of the state to compensate for all damage sustained. About 2 million Finnish marks are spent annually on these compensations.

Even though every effort is made to provide financial compensation for damage, each reindeer killed presents a loss to the herder. Money cannot compensate for a dead reindeer, which is the basis of the herder's production machinery. On top of that, predators cause a lot of unnecessary work, which interferes badly with reindeer management, particularly in the eastern frontier districts. We also know that some of the reindeer killed by predators are never found.

#### Traffic accidents

About 2700 reindeer are killed on the roads every year. Traffic insurance covers part of the loss incurred from reindeer killed by traffic. Compensation for reindeer killed by trains is paid by the Board of Administration of the State Railways. Traffic accidents are a big loss to reindeer husbandry but not as bad as the damage caused by predators. First, nearly all traffic accidents can be accounted for thanks to the system that covers the whole reindeer management area and partial compensation can be paid. Second, the damage is distributed over the reindeer management area more evenly than that caused by predators. Third, traffic accidents do not interfere with the management routine. Nevertheless, there is still a lot to be done in preventing accidents. The Central Organization for Traffic Safety, the Central Association of Reindeer Breeders and the University of Oulu have in fact joined forces to conduct studies on traffic accidents in an effort to find ways of preventing them.

Unsupervised mass tourism presents a considerable hazard to reindeer husbandry. Tourism should not be developed or planned without first taking into account the needs of reindeer herders. There should also be more guidance for tourists. Water regulation and reservoir construction are also bad for reindeer husbandry.

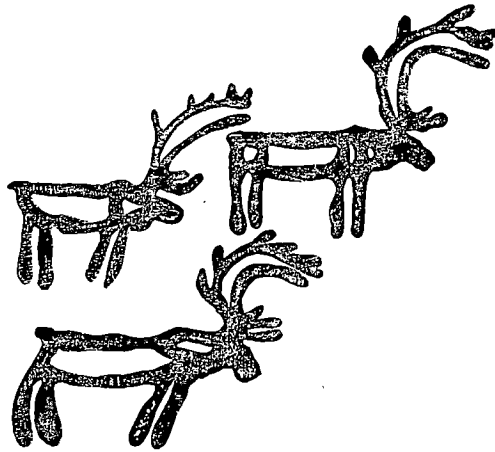
### **Training**

Vocational training in reindeer husbandry is carried out at agricultural institutions. In the two-year vocational school, the students on the agricultural and reindeer husbandry courses follow the same curriculum for the first year. They specialize in the second year, when there is a special course for reindeer men and women. Reindeer husbandry courses are held at Kittilä agricultural institution. If more students apply for the courses, extra ones can be set up at other agricultural institutions in the reindeer management area.

In addition, together with the National Board of Vocational Education, the Central Association of Reindeer Breeders arranges various reindeer herding courses every year. Year by year, they provide training in reindeer management for dozens of men and women.

### **The importance of reindeer husbandry**

The reindeer converts the energy available from sunlight into food in places where other animals and plants would not be able to. Reindeer husbandry enables people to make a living in Arctic regions. It gives work and a livelihood to thousands of people living in the far north of Finland and is the main prop of Lapp culture. It also safeguards habitation in the most remote regions of Finland. It keeps Lapland warm.



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## POSSIBILITIES OF ESTABLISHING AN ECONOMIC BASE IN UNDERDEVELOPED REGIONS

As is commonly seen in all other parts of the world, there are relative differences in the development of Hungary's regions. However, these differences in development reached such proportions in the 1980s that have given rise to social tension which call for urgent action.

In order to identify the sources of tension, a national survey was held to review employment opportunities, the natural endowments for agricultural production, the efficiency of farms, the infrastructure available to business units and to the population as well as demographic circumstances.

Based on the survey's findings, 23 regions were declared to be economically underdeveloped in seven counties. All in all, there are 573 settlements in these regions, their population accounting for four per cent of the total population of Hungary. However, local population diminishes gradually as a result of natural attrition due, primarily, to migration out of these regions and the unfavourable age structure.

A network of minute villages prevails since the average number of villagers in any of the settlements is around 750, although it is not infrequent to find villages with 200–300 souls or even less. Over 40 per cent of the active earners can find no employment in their home villages, they commute to other regions, mostly bigger towns, to find work. Nevertheless, agriculture remains a prime employer, since 42 per cent of all earners work there, which is twice the national rate.

There are 161 large-scale agricultural farms in the underdeveloped regions, cultivating 2,400 ha of arable land on average, and more than half of them operate at a loss despite the subsidies granted by the government.

A prime condition to escaping from this critical situation is to develop the economic base of the underdeveloped regions. The possible options, related to agricultural production, can be summed up as follows, based on the specific surveys conducted by the Institute I work for:

Traditional agricultural production as such is unable to ensure full employment in the underdeveloped regions. If, however, the range activities were expanded (to include secondary activities), it could play a hitherto greater role by processing local agricultural produce into foodstuffs and by processing wood.

### **Restructuring agricultural production**

Agricultural production can be restructured by radically changing the actual ways of land utilization, primarily through revamping sectors of production and the intensity of land utilization.

From a theoretical point of view, there are two possible approaches regarding regions with poor natural endowments. One would imply a drastic transformation of physical conditions, i.e. their amelioration via complex land improvement; the other would imply adaptation to existing and sustained conditions. Considering current economic circumstances, the first option is not deemed realistic, therefore the second option, meaning adaptation, should be adopted.

As regards actual land utilization, the following arrangement is proposed:

- (a) Arable land cultivation needs to be abolished wherever economically acceptable levels of efficiency cannot be reached through the analysis of the expenditure/yield ratios. In line with the Institute's estimates, this would affect about a quarter or a fifth of all the arable land. The areas such affected could be used for forrestation or they could serve for the protection of the environment as, perhaps, grasslands.

In some areas the utilization of forests could also be modified: wherever development projects are implemented in order to attract tourists, priority could be given to environmental and welfare, or mixed functions of forests. Elsewhere, there could be realistic opportunities for developing game management and improving the hunting attractions since, in the long run, game management and hunting could be developed as a line in the tourist trade, suitable for large-scale farms.

- (b) Arable lands under extensive cultivation should be used primarily to grow bulk crops (predominantly cereals) with a view to prevalent market conditions, of course. Consequently, cultivation may be temporarily suspended on such lands for economic considerations, so these lands would be cultivated on a "stand-by" basis.

- (c) Better quality lands could be used with greater intensity. Although the quality of soil is generally poor in the disadvantaged areas, more detailed surveys have shown that there may be substantial differences in soil quality even within farms. The better quality patches, which usually mean smaller than average plots in today's farms, could be utilized more intensively either as arable land or as land for orchards. There could be two specific modes for the more intensive utilization. The first could mean stepping up expenditures per unit of area, while the second could imply increases in proportion of land under more intensive cultivation (primarily the more labour intensive sectors). The second option is regarded as more feasible. Certainly, it would require lower volumes of technical effort to achieve the set objectives, which would mostly be limited to land improvement operations aimed at improving drainage and water management. The production rates of berries, vegetables and seed grain could be boosted in these areas.

Labour intensive land utilization would offer multiple advantages. Processing units could be founded to utilize local produce, using different forms of business associations. Moreover, the mobilisation of household savings appears to be the most likely through such arrangements.

In line with the idea outlined above, a predominant share of the land would still be taken up by cereals. The international competitiveness of these sections, including wheat and maize, is satisfactory. The upper limit for lands under cereals would be defined by physical endowments and land utilization with intensively cultivated crops.

Of course, animal husbandry would have to be geared to the system of land utilization described above. As shown by the surveys, both the financial profitability and the international competitiveness of grain feed-based sectors (including poultry and pigs) are more favourable than those of the ruminants (requiring buld fodder) which are shown to be bad performers by all other indices as well. Nevertheless, it would be irrational to propose to expand the grain feed-based sectors since the volume of locally grown grain feeds set natural limits for these sectors and hauling grain feeds from other regions would not be a rational proposition.

Earlier, disadvantaged agricultural regions focussed on the production of ruminants in general. Under current cost/benefit conditions, neither the financial profitability, nor the international competitiveness of these sectors is satisfactory. Nevertheless, there is no proposal to wind up radically these sectors, only to change organizational forms of production and to rationalize same, partly



for the purpose of guaranteeing local supply, partly for the purpose of providing environment-friendly nutrients (in the form of organic manure) for arable land crops and intensively cultivated crops.

In the case of large-scale farms, where animal husbandry cannot be rendered profitable, herds should be given over gradually to small producers and entrepreneurs. More than one organizational forms could be used (such as rental, family ventures within large-scale farms, integrated small-scale production, independent ventures, etc.). A precondition to decentralizing animal husbandry is to arrange for partially unutilized grasslands and other areas, tentatively used as arable land, to be made available to small producers and entrepreneurs either as leasehold (up to 50 years) or as land up for sale.

### **Developing services**

As for services, growing demand for consumer services to be rendered for households will have to be reckoned with in case local population in the affected regions stops decreasing. However, such services will have to be offered primarily by craftsmen.

As for another sector of services, i.e. the business-type services, further jobs will be created by the tourist trade on the one hand, and by production services on the other hand.

There are niches in tourism which offer development opportunities in the underdeveloped regions as well, although definitely not in the same form or at the same rate everywhere. Game management enjoys the most realistic opportunities here, along with the development hunting, which calls for higherlevel touristic services, although the settlements of the regions, especially major towns would offer opportunities for popular tourism as well.

As regards production services, increased demand can be expected to arise as a result of expanding and more intensive small-scale agricultural production (for soil tillage, plant protection, transportation of produce, and so on), or some progress could be expected in the field of consultancy services for producers and commerce (including procurement and sales).

### **The organizational framework for development**

It would be expedient to expand the organizational framework for development projects.

Large-scale agricultural farms would remain to be dominant business units, although significant changes are required both in the way they operate and in their organizational structures. It is least likely that they can continue to exist with their traditional organizational structures and systems of incentives. The upgrading of intra-farm incentives and internal organizational forms have already produced tangible results on a number of farms. If this process continues to be strengthened some of the large-scale farms will be transformed into holding and service companies, while their earlier production activities will be taken over by entrepreneurs.

Some of the large-scale farms, mostly those operating with sustained losses, may be liquidated. In their stead, simpler forms of businesses may spring up, such as specialized co-operatives, or co-operatives of small producers, or they may be taken over by other, stronger farms. These organizational changes may prove to be viable only if the successors of the wound-up large-scale farms do not inherit the predecessors' accumulated debt as well.

Small-scale agricultural production will be maintained in the long run, although certain surveys have indicated that its significance decreases, rather than increases, in a number of regions. Some of the small producers will continue to operate as traditional small producers producing goods for their own consumption as to supplement family income; others will develop into market producers, i.e. agricultural entrepreneurs.

The existing small numbers of private farms will continue to exist, and their numbers may even grow. Already existing farms may become stronger, and further private farms may be established on the lands of wound-up large-scale farms.

It is deemed important that there should be opportunities for businesses to use combinations of ownership forms, especially in the field of commerce and food processing activities.

Any development necessitates resources for investments, and local sources are insufficient for such purposes.

Working capital would be required from external sources. However, such resources can be mobilised only if such investments are granted preferences, such as tax preferences, preferential loans and government resources for certain infrastructure development in the first place.

As specific surveys have already indicated, under current price and cost conditions, agricultural production can be maintained with government subsidies only. The system of subsidies, however, should be revamped to facilitate the adoption of the new land utilization system on the one hand, and it should also be transformed into system of subsidization that would be neutral in respect of production sectors and entities.

Since the development of the regions at issue was neglected for a long while, regional development projects are also required, as a result of which the quality of life, experienced by the local population, would also be upgraded. We must come to the common understanding that the interests of business entities, those of the local population and those of society at large coincide in that presently underdeveloped regions should carry functions beneficial for the whole economy and any investment made there with a view towards development would bring benefits for the whole of society.

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## POTENTIAL FOR MITIGATION OF REGIONAL DISPROPORTIONS IN POLISH AGRICULTURE

Economic analyses of Polish agriculture indicate the existence of significant regional disproportions, as the result of the varied conditions of development of agriculture in the particular parts of the country. To the less-developed regions we include: the north-eastern macro-economic planning region, comprising the Białystok and Łomża województwo administrative regions, the mid-east planning region, comprising the Ostrołęka administrative region, the central planning region with Piotrków Trybunalski and Sieradz administrative regions and the south-eastern region<sup>1)</sup>.

Some characteristic features of regions listed above are:

- (1) dispersion of farmland, i.e. fragmentation of the land spread; thus farms in the 0.51 to 5 hectares area group dominate in the south-eastern region (representing 67.2 percent of the total farm number) and in the southern region (respectively a share of 32.8 percent). The farmland spread is strongly fragmented<sup>2)</sup>.
- (2) a low level of development of the social and technical infrastructure and poor availability of services for the rural and agricultural population<sup>3)</sup>.

A distinct relationship is observed between the level of urbanization of the particular macro regions and the level of social infrastructure. In this case the most neglected areas are the south-eastern region, the capital Warszawa region, excluding Warszawa itself, the mid-eastern region, the central and north-eastern.

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1) This classification is based on Polish Government GUS Central Statistical Office materials.

2) In all Polish private agriculture in 1987 some 19.6 percent of private farms had the land in six or more plots; the situation was much worse in the regions discussed.

3) KLEMENTOWSKI, A: Infrastrukturalne uwarunkowania produkcji rolniczej (Infrastructural Conditions of Agricultural Production), IAFE RKE publication series, no. 227, 1988.

Similar regularities exist in the technical infrastructure as well. Significant spatial differentiation refers to the agricultural services, which include mechanization, veterinarian services, transport etc., as well as supply of production inputs for farming and marketing of agricultural products and also extension and advising services, with organization of special training courses for farmers.

It is necessary to point out that the regions with a relatively low level of social and technical infrastructure are also less-developed as regards agricultural services, which makes the process of overcoming the existing regional disproportions more difficult.

- (3) a low level of technical equipment of farms in the less-developed regions;
- (4) an unfavorable demographic characteristic of the population, this being a consequence of the aforementioned stagnant development; this is reflected in:
  - a) an increasing number of farms run by elderly people, often single. This situation concerns in particular the north-eastern region, where about 50 percent of farmers are in the age group 45 to 60/65 years (the latter being the retirement age limit respectively for women and for men). At the same time this region has the lowest ratio of fully employed farm workers per 100 hectares of farmland, this being a figure of 16.8 persons, compared to 41.3 in the south-eastern region and 37.3 in the south.
  - b) an increasing number of farms without successors. This problem concerns mainly small farms but is also observed in the groups of mid-sized and larger farms, the latter being neglected, located on poor soils. In the eastern and the north-eastern regions problems are encountered with the management of farmland which is placed at the disposal of the PFZ State Land Fund land bank. The amount of farmland placed with the PFZ land bank is still higher than the demand for land by private farmers, this despite an uptrend in this area to buy land by private farmers.

The principal reasons of the small interest of young people in taking over farms are recognized as follows<sup>4)</sup>

- long hours of hard, low paid work;
- difficulties in running farms, i.e. shortages of production inputs, inadequate production services etc.;
- low prestige of the farmer profession;

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4) SIKORSKA, A.: Poziom wykształcenia jako czynnik zróżnicowania rodzin rolniczych (Education Level as a Factor of Differentiation on Farmer Families) *Wież Współczesna* (Countryside Today journal, no. 8, 1986.

- lack of prospects - in the opinion of young people - for private farming, in particular the small ones.

c) a growing number of single young farmers. On the average one in four farmers in the below 40 years of age group is single and has problems to find a wife. This percentage goes up to 31 percent in the north-eastern region and drops to 18 percent in the industrialized areas<sup>5)</sup>.

All of the facts listed above indicate the relatively inferior situation in the north-eastern region, in comparison with the balance of the country as concerns in particular the quality and quantity of labor in private farming. The presented characteristics of less-developed regions indicate the numerous problems which call for resolving in Polish conditions in order to overcome the regional development disproportions. The principal aim of such efforts is to improve the productivity and efficiency of agriculture, in particular in the regions discussed.

In the regions with strongly fragmented landspread, i.e. the south and eastern parts of the country, agricultural operations encounter technical, economical and social barriers to increasing agricultural production. Traditional farming, non-specialized in conditions of a small farm fails to bring the benefits of scale of production and constitutes a barrier in utilizing the benefits of technical progress. As a result of this, the productivity of labor is low and farmers' incomes are below those in the other sectors of the national economy, which results in a decrease of the interest in the farmer profession as such, especially among young people. A number of ways may be proposed for small scale farms in order to increase the productivity of these farms and the farmers' incomes. One of the possibilities for overcoming the barrier of farmland dispersion can be the development of simple forms of cooperation (partnerships, informal farmer groups), which would be organized on the basis of the farmers' individual decisions.

Some experience concerning such forms of cooperation has been accumulated in the 1970s, but it was mostly negative. Analyses of the failure of these conceptions could however be helpful to work out new models of such cooperation and to avoid mistakes in the future. A significant role in this respect could be played by the WOPR regional agricultural extension centers, particularly as concerns the extension and advising functions.

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<sup>5)</sup> SZEMBERG, A.: Ludność zatrudnieni w rolnictwie indywidualnym w latach 1981-1984 (Population and Labor in Private Farming in 1981-1984), *Zagadnienia Ekonomiki Rolnej* (Problems of Agricultural Economics journal), no. 5, 1986.

Another possibility to be applied in the regions of strongly fragmented farmland could be the development of land-conserving and based on poor soils lines of farm production, such as protected cultivation of vegetables or flowers, under glass or plastic foil, nurseries etc. As regards this problem, it is necessary to notice that the development of this kind of production (protected crops) requires high outlays of capital. Thus the financial barrier may appear for many farmers and might give rise to social conflicts and animosity in the rural communities.

In mountaineous regions farmers' incomes may be augmented, and in many villages already are, by farm tourism. A significant role in the activation of the underdeveloped parts of the country may be played by small-scale industrial operations, for example food processing factories, located in the countryside. These industries stimulate the development of cultivation of respective agricultural raw materials and would create new jobs for groups of rural population, serving to increase their incomes.

The latest measures undertaken in Polish economic policies promise to encourage the participation of foreign capital in the development of Polish agriculture and food processing. This is necessary, as all of the propositions for development programs require substantial outlays of capital. In a situation of capital shortages, before proposed solutions augmenting farmers incomes and productivity have effect, through jobs creation and other, the problem of this population group remains. The situation is difficult as it cannot make a living from agriculture and cannot migrate to towns because of the shortage of housing there.

In view of the recognized difficulties with daily commuting to work to towns, it was interesting to find out the attitudes of the rural population towards the creation of jobs in the countryside as such. Only 54 percent of respondents approved such an idea, claiming that it would increase the vocational activity of the rural population and serve to improve the state of the infrastructure as well, thus exerting a positive influence but ensuing labor shortages were feared<sup>6)</sup>. This is rather an indication of the impact of permanent shortages of labor substituting inputs than other factors. Positive results of increased outside farming employment are thus conditioned by marked progress in the mechanization of farm production.

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6) This is basis research in a national survey by IAFE Social Research department of a representative sample of 20,000 rural families (of which 13,000 are private farmer families and 7,000 are rural landless families) conducted in 186 villages in the country's nine macro economic planning regions, performed once every four years.

Table 1. Employment structure of rural population (in percent)

Regions	Share of employment outside peasant farms in total rural employment	of which share of employed		
		outside own village	in village	of which in rural services
	1	2	3	4
Poland	42.3	22.7	19.6	16.4
Regions:				
mid-west	37.8	17.0	20.8	17.5
central	43.5	24.6	18.9	17.0
Warszawa	36.8	20.0	16.8	15.6
mid-east	30.4	14.1	16.3	15.6
south-east	42.3	26.2	16.1	13.6
south	57.8	32.2	25.6	20.7
south-west	52.5	27.4	25.1	19.5
north	43.0	23.7	19.3	11.6
north-east	27.8	9.6	18.2	15.5

Source: Basis sample in IAFE research national survey, 1984 data.

The rural labor markets are first of all determined by the local infrastructure development, by the proximity and absorbing force of nearby or far off urban jobs and markets; these factors explain the far reaching differentiation of rural on and off-farm employment discussed.



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## ON FARMERS' LIVELIHOOD PROSPECTS IN OSTROBOTHNIA<sup>1)</sup>

### General

In Finland, private farmers nowadays own some 120,000 active farms, of which 20 %, or 23,500, are in the province of Vaasa<sup>2)</sup>. The average size of privately owned farms is 15.1 ha in the whole country and 14.8 ha in the province of Vaasa. Farms in southern Ostrobothnia have traditionally been larger than in many other areas. In some Ostrobothnian municipalities the average hectareage of arable land is significantly greater than that given. The area of forest land belonging to Ostrobothnian farms corresponds roughly to the figure for southern Finland, but it is some 10 ha less than the national average.

In terms of the lines of production, there are some 10 percentage points more dairy farms in Ostrobothnia than in southern Finland; relatively speaking, the highest number of dairy farms is in eastern and northern Finland. Pig and poultry farms are more common in Ostrobothnia than in the south of the country. Dairy farms have a couple of hectares more arable land and their livestock comprises two cows more than the national average. Agriculture in this area is specialized to a considerable extent.

As an area, southern Ostrobothnia is by no means homogeneous. It comprises districts with relatively favourable conditions for agriculture but also peripheral areas where the conditions are very poor. The differences are even greater in terms of the whole province of Vaasa. In several respects it is even difficult to compare many parts of central Ostrobothnia with southern Ostrobothnia. In regional policy, including agricultural support policy, regional and even municipal differences should be taken into account better than they are today; negligence can be perceived. Finnish regional policy is based far too much on administrative regions, mainly on provinces. In this report, too, which studies farmers' livelihood on the basis of tax information, it has only been possible to apply the provincial division.

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1) This paper has been presented also in the meeting of agricultural producers in Seinäjoki 15.4.1989.

2) The province of Vaasa, see a map.

## Farmers' income from agriculture

In this context it is not possible to discuss farmers' income and income formation in detail. In general, the income received by farmers in Vaasa province is more or less satisfactory in normal years and in several years the level of agricultural income has reached the national average. The income for very small farms (less than 10 ha), has been some 10 % lower than the Finnish average, but that for farms comprising 10–20 ha has been around the national average or above it throughout the 1980s. Agricultural income for farms with more than 20 ha of land has been at the average national level or higher. In 1986, for instance, agricultural income for 10–20 ha farms in Ostrobothnia averaged FIM 58,200 per farm and FIM 93,700 for farms comprising 20–30 ha. Income per actively participating family member is slightly more than half of the above figures. The agricultural income mentioned is the same term which is used in calculating agricultural incomes and in incomes negotiations. The regional subsidy for agriculture accounts for some 15–25% of agricultural incomes in Ostrobothnia, depending on the size of the farm, its location and production line.

In terms of results based on line of production, the level of agricultural income for dairy farms in Ostrobothnia is equal to that in southern Finland and the national average, whereas for pig farms the figure is slightly lower. Results for farms where grain or special plants are cultivated have equalled or slightly exceeded the figures for southern Finland. All figures quoted refer to 1986 (Figure 1).

## Harvest risks in Ostrobothnia

Crop failure is not a rare phenomenon in Ostrobothnia. The 1987 crop failure was especially bad there and also in northern Finland, neither can we regard the 1988 harvest as wholly normal in either area. The financial effect of a crop failure can be judged on the basis of results for bookkeeping farms participating in the agricultural profitability survey; the corresponding tax information will not be available before the autumn. The 1987 harvest on bookkeeping farms was a quarter poorer than the previous year's, which was considered a relatively normal year. The harvest on bookkeeping farms was 30–50% lower than average in southern Ostrobothnia. In addition to quantitative failure of the crop, the quality of the crop led to losses which are difficult to assess.

AGRICULTURAL INCOME  
FIM 1000/FARM

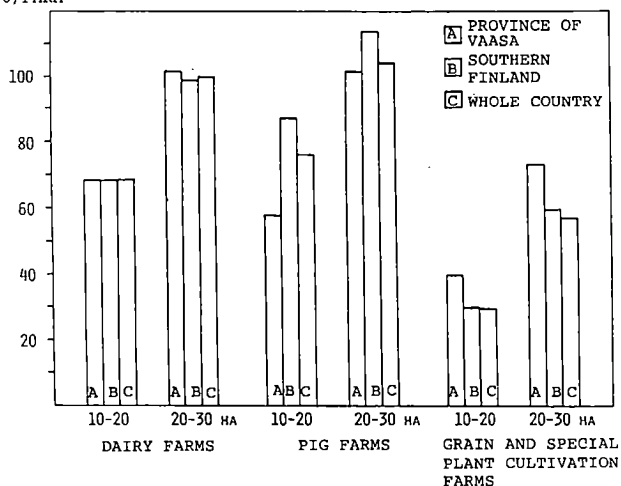


Fig. 1. Agricultural income per farm in various production lines in the province of Vaasa, southern Finland and the whole country on average, 1986.

According to the data on bookkeeping farms, the agricultural income for 1987 was 23 % lower than the previous year in the whole country. The financial results for Ostrobothnian dairy farms were 25–30% below the figure for a standard year. On pig and plant cultivation farms, for instance, the losses were even greater. It should be noted that the above-mentioned figures include crop failure compensation paid to farms. All in all, the effects of a poor harvest fall on several years in terms of both loss and compensation.

I mentioned above that good results have been achieved in southern Ostrobothnia in normal years. Bad harvest is, however, a serious example of the risks that are connected with agriculture in this area. Despite compensations, the farmer often has to bear the heaviest loss.

### Agriculture and farmers' other income

Some 55 % of a farming couple's net income comes from agriculture in a normal year in Ostrobothnia; the corresponding figure for the whole country is about half of that. Income from forestry is lower here than in many other districts, but this is offset by salary and entrepreneurial income. Pension income is lower than elsewhere in the country, which is partly due to the lower average age of farmers. Thus other than agricultural income is of considerable importance. The total net income of a farming couple has been at the average national level throughout the 1980s in Ostrobothnia. The total net income of farmers in southern Finland has been some 5–10 % higher than that of those in Ostrobothnia.

In several instances recently, farmers have been grouped on the basis of whether they work full-time or part-time. This classification is also possible on the basis of the proportion of income given in tax data<sup>1)</sup>. According to this, part-time farms account for about half of the total number of farms in Ostrobothnia. Some 15 % are subsidiary farms and some 35 % farms owned by those for whom agriculture is the primary source of livelihood. Part-time farms have always been slightly more common in Ostrobothnia than elsewhere in Finland. During the last ten years their share of the total number of farms has increased by some 15 percentage points. The share of subsidiary farms has also risen slightly. During the corresponding period, the share of full-time farms has decreased by some 17 percentage points. Development on these farm groups in Ostrobothnia is roughly equal to that in the country as a whole.

The part-time farms here, as elsewhere in the country, are small, i.e. they comprise some 10.6 ha of arable land and some 23 ha of small forest land. The corresponding figures for subsidiary farms are 17.0 ha and 35 ha, and for full-time farms 20.2 ha and 33 ha.

Differences in farm size are clear within the groups. In 1986 the total income<sup>2)</sup> for a farming couple in the province of Vaasa was FIM 61,400 per person on full-time farms, FIM 61,900 on subsidiary farms and FIM 51,000 on part-time farms. Income in the different farm groups are at the same level throughout the country. The same year agricultural income amounted to FIM 54,000 per person for full-time farmers (Figures 2 and 3).

In recent years, it has been suggested that, e.g. in the payment of agricultural support, agricultural policy should treat part-time farms differently from full-time farms. We should remember, however, that part-time farms are small, more than 90% of the part-time farms being less than 20 ha in size. It has been pointed out on a number of occasions over the years that the holders of small farms need income from outside the farm, simply to secure their livelihood. We should think seriously about whether there is any need to reduce agricultural support to small and medium-sized part-time farms. The number of wealthy executives who take up part-time farming is very small in this country, and we should not let the way they are treated affect the income of part-time farmers

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1) Full-time farmers, net income from agriculture and forestry more than 75 % of total income  
 Subsidiary farmers, net income from agriculture and forestry 50-75 % of total income  
 Part-time farmers, net income from agriculture and forestry less than 50 % of total income.

2) Before taxes; their share of total income is 27 % for full-time farms, 25 % for subsidiary farms and 21 % for part-time farms.

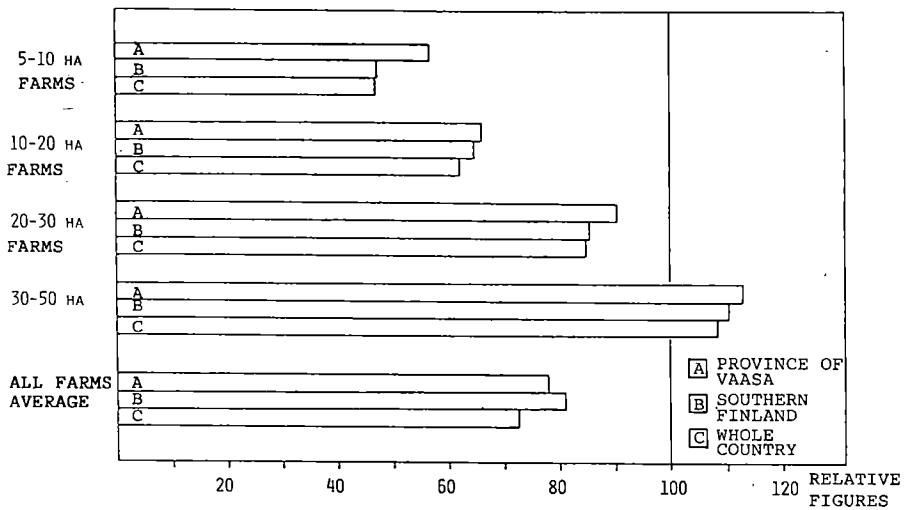


Fig. 2. Agricultural income per farmer and spouse (FIM/person) on full-time farms in the province of Vaasa, southern Finland and the whole country on average for 1986 in relative figures. (Income of industrial worker =100).

TOTAL INCOME  
FIM 1000/PERSON

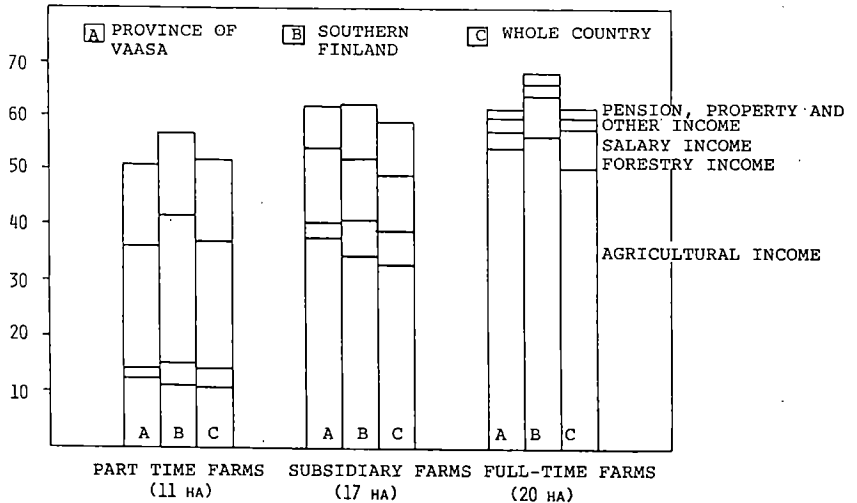


Fig. 3. Total income of farming couples (FIM/person). On part-time subsidiary and full-time farms in the province of Vaasa, southern Finland and the whole country on average in 1986.

as a whole. It is to be hoped that part-time farmers will remain on their farms for the good of the countryside and also for reasons of production policy, as production on these farms tends to be broadly based. When working at his own business, the part-time farmer can offer employment and provide a source of income to another part-time farmer. The continuing mechanization and specialization of farms is going to lead to a continuing increase in the number of part-time farms. Not all production lines can accommodate the part-time concept.

### **Population trends and prognoses**

The most recent population trend and job prognosis published by the Ministry of the Interior aroused a furor with its prediction of a new wave of migration to the province of Uusimaa in southern Finland (see the map). Programmes made for individual provinces are intended to be the basis of regional planning in the various fields of administration. In this, population trends and the mobility of the labour force has been estimated according to the trend calculation, in which the growth of the GDP, the birth rate and migration, employment and the contribution to regional policy are assumed to remain stable. But then again, efforts have been made to draw up a programme in which it is assumed that the targets set in the legislation referring to regional policies will be implemented more effectively.

In the programme extending up to the year 2000, the population of the whole country is predicted to grow by about 77,000. According to the trend, that is, assuming things remain the same, the population of Uusimaa is expected to increase by 130,000 but elsewhere in the country to decrease by 53,000. About one-third of this number, i.e. 17,000 people, will refer to the province of Vaasa. With its efficient regional policies, it is predicted that the province of Vaasa will be able to maintain its present population (440,000) and to increase the number of people at work. Prognoses always include some amount of uncertainty, but they may have indirect influence on development. They may affect the implementation of policies but equally they may mould the opinions of entrepreneurs and people in general, in other words, people live according to prognoses, not reality. There is naturally a direct link between local trends in population and the work force and developments in the countryside and agriculture in different parts of the country. Let us hope that in the handling of regional policies, agriculture included, the policies and procedures to be implemented will be revised if necessary, to avoid any upset in hoped-for improvements.

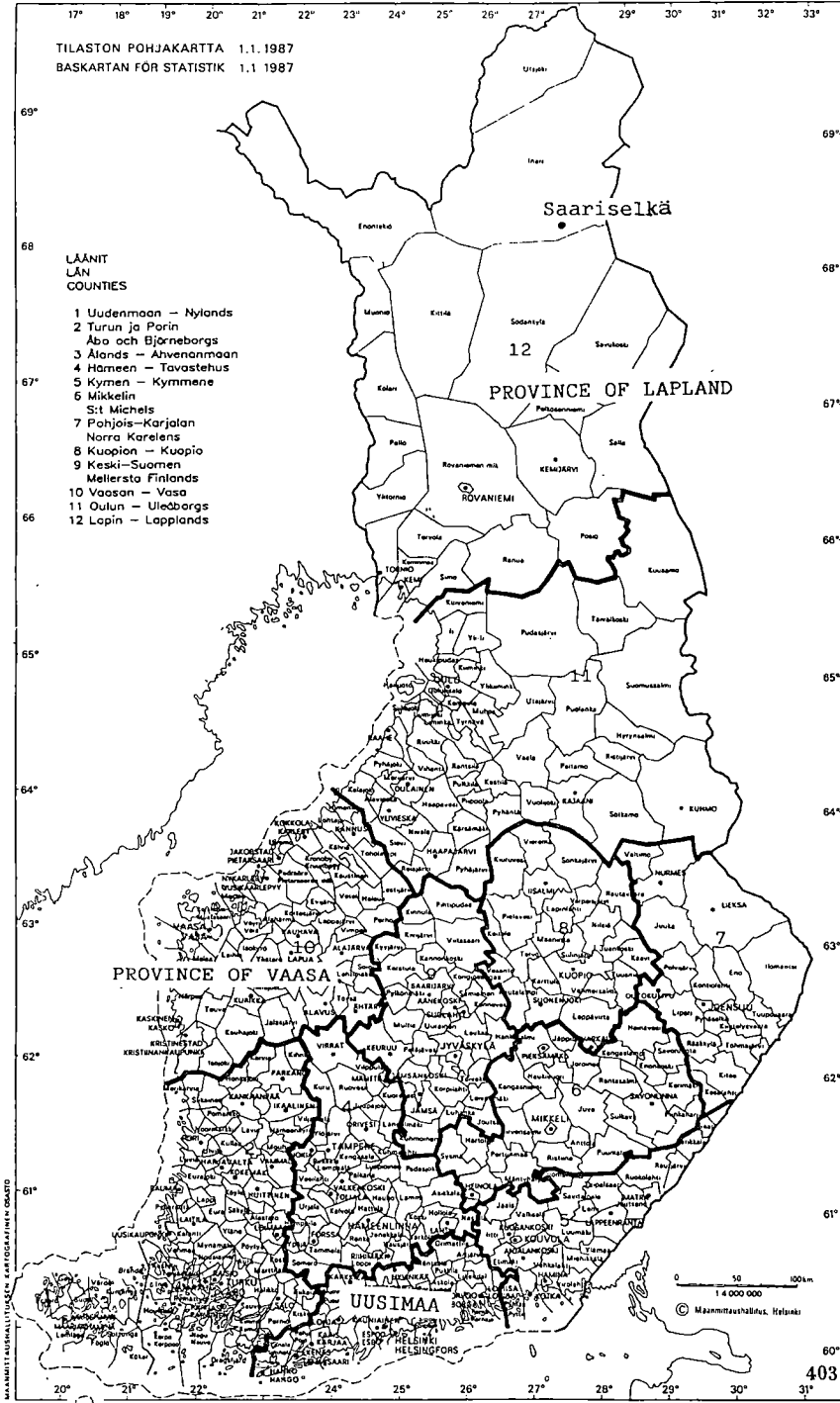
It has recently been proposed that a broadly based rural development programme should be launched. There are many reasons why this should be done. There are areas in Finland that may lose too many people as a result of a decline in agriculture and population trends. There are some small areas like this in southern Ostrobothnia, too. Regional studies and plans are indeed made by different bodies but we lack a coherent rural development plan.

### Summary

The subject of international integration has recently joined the debate on agriculture. It is still totally unclear how and in what way it will affect the price and imports of food, the food industry and basic agricultural output. Finnish agriculture cannot compete on the world export markets, the decrease in production must be continued and the structural change currently under way will continue. We have to try to develop agricultural output in every aspect in an effort to bring production costs down. Priority will continue to be given to the importance of regional policies in agriculture. Price and regional support for agriculture must be rethought. Direct price support tends to raise the price and cost level. We should therefore look into the feasibility of giving a higher proportion of the support as direct income support and, if necessary, as regional support. Direct income support would be easier to channel equally to farmers engaged in different types of production than price support. The limits of local support should be examined more closely; perhaps we should give up, at least partially, our coherent support areas if necessary. One possibility would be to pay the support to individual farms.

It has recently been proposed that agricultural support to part-time farms should be reduced. In practice the vast majority of such farms are comparable to family smallholdings. We should think seriously about the necessity of impairing the livelihood of farmers who have augmented their income with work done outside agriculture proper.

At present, several authorities are involved in compiling regional reports and drawing up regional schemes. But there does not seem to be any coherent rural development programme. Small-scale private enterprise is all the rage nowadays. It has produced a few thousand jobs. That is however a very small number when we think what is happening in agriculture. For that reason, the future of the countryside depends very much on trends in agriculture. We can influence this with various measures of agricultural policy.



A map of Finnish provinces.



THE EIGHTH FINNISH-HUNGARIAN-POLISH SEMINAR ON  
AGRICULTURAL ECONOMISTS AT SAARISELKÄ, FINLAND,  
MAY 2.-5.1989

PROGRAM

Sunday April 30.

Arrival of Hungarian and Polish delegations,  
Accommodation at Hotel Hospiz, Vuorikatu 17, Helsinki

Monday May 1.

8.00 Breakfast at the hotel  
Program free  
13.00 Lunch at the hotel

Tuesday May 2.

8.00 Breakfast at the hotel  
9.30 Visit to the Agricultural Economics Research Institute  
11.30 Lunch at the Institute  
12.45 Departure to the Airport  
14.00-16.05 Flight to Ivalo  
16.15-17.00 Transportation by bus to Saariselkä  
17.00- Accomodation  
18.00- Welcome party and dinner,  
hosted by Dir. Markku Melaranta, OKO-bank

Wednesday May 3.

8.00 Breakfast  
9.00-12.00 Opening of the seminar: Chairman Prof. Matias Torvela:  
Welcome to the Seminar of Finnish, Polish and Hungarian  
Agricultural Economists at Saariselkä

Agr. Kimmo Korpi: Conditions for Agriculture and Rural In-  
dustries in Lapland

Dir.Gen. Béla Csendes: Some Important Lines of the New  
Hungarian Agrarian Policy

Dr. Andrzej Nyrkowski: Development of the Infrastructure as  
One Way for the Activization of Economically Neglected  
Regions

- 12.00–13.00 Lunch  
 13.30–16.00 Seminar work  
 Chairman: Dir. Gen. Béla Csendes/Dr. Tamás Ujhelyi
- Dr. Jouko Sirén: The Government's Role and Agricultural Policy in the Agriculture of Northern Finland
- Dr. Tomasz Lonc: Agricultural Policies Towards Less Developed Regions
- Dr. Éva Borszéki: Problems of Competitiveness and Efficiency in Hungary on Large-scale Farms in Resource Poor Areas
- 16.00–19.30 Meeting of the directors. Enjoying fresh air and sauna  
 20.30 Dinner

Thursday May 4.

- 7.45 Breakfast  
 9.00– Visit to Muddusjärvi – experimental farm of Helsinki University  
 13.00–14.00 Lunch in Kultahovi-restaurant  
 14.00–18.00 Dir. Veikko Huttu-Hiltunen: Reindeer Husbandry in Finland  
 Visit to Mr. Heikki Katajamäki's reindeer farm  
 18.00 Dinner in restaurant Huippu; restaurantkeeper Ms. Arja Järvinen tells about her enterprise; dinner hosted by Dir. Seppo Kynsilehto, Kera-bank

Friday May 5.

- 8.00–9.00 Breakfast  
 9.00–11.30 Seminar work  
 Chairman: Prof. Augustyn Wós/Dr. Tomasz Lonc
- Dr. László Dorgai: Possibilities of Establishing an Economic Base in Underdeveloped Regions.
- M.Sc. Hanna Guzik: Potential for Mitigation of Regional Disproportions in Polish Agriculture
- Prof. Matias Torvela: On farmers' Livelihood Prospects in Ostrobothnia

## Final discussion

Prof. Augustyn Wós: General Findings of the Eighth Finnish-Hungarian-Polish Seminar on Agriculture and Subsidiary Industries in Difficult Circumstances

- 12.00-13.30 Lunch in "Raunintupa". Restaurantkeeper  
Mrs. Rauni Määttä tells about the history of her enterprise.
- 15.00- Bus to the airport
- 16.25-18.25 Flight to Helsinki
- 19.30- Evening tea at the Hotel Hospiz

## Saturday May 6.

- 8.00- Breakfast at the hotel  
Free time

## Sunday May 7.

- 8.00- Breakfast at the hotel
- 14.00- Lunch at some restaurant  
Transportation to airport  
Flights to Budapest and Warszawa



## Publications of the Agricultural Economics Research Institute

- No 45. Maatalousekonomian tutkimusta 30 vuotta. Lantbruksekonomisk forskning 30 år. 1982, 232 s.
- No 46. Tutkimuksia Suomen maatalouden kannattavuudesta. Tilivuodet 1979–1981. (Summary: Investigations on the profitability of agriculture in Finland business years 1979–1981). 1983, 121 s.
- No 47. The Economy of Crop Production. The Fifth Finnish–Hungarian–Polish seminar on agricultural economics Finland, June 13–16, 1983, 182 s.
- No 48. Heikkilä, A–M: Perheviljelmän koko ja viljelijäperheen toimeentulon lähteet. (Summary: The size of family holdings and the source of farm family income.) 1984, 95 s.
- No 49. Kettunen, L. Maatalouden omavaraisuus Suomessa vuosina 1970–83. Summary: Self-sufficiency of Finnish agriculture in 1970–83. 1985, 75 s.
- No 50. Kettunen, L. Suomen maatalous vuonna 1985. 1986, 42 s.
- No 50a Kettunen, L. Finnish agriculture in 1985. 1986, 42 s.
- No 51. Anon. Tutkimuksia Suomen maatalouden kannattavuudesta. Tilivuodet 1982–84. Summary: Investigation of the profitability of agriculture in Finland in business years 1982–84. 1986, 136 s.
- No 52. Kettunen, L. Suomen maatalous vuonna 1986. 1987, 44 s.
- No 52a Kettunen, L. Finnish agriculture in 1986. 1987, 44 s.
- No 53. Anon. Maatalouden kannattavuustutkimus 75 vuotta. Summary: Farm accounting in Finland 75 years. 1987, 123 s.
- No 54. Kettunen, L. Suomen maatalous vuonna 1987. 1988, 36 s.
- No 54a Kettunen, L. Finnish Agriculture in 1987. 1988, 36 s.
- No 55. Tuotantokustannuksista maatilamatkailuun. Matias Torvelan 60–vuotisjuhlajulkaisu. 1988, 161 s.
- No 56. Kettunen L. Suomen maatalous vuonna 1988. 1989, 50 s.
- No 56a Kettunen, L. Finnish Agriculture in 1988. 1989, 52 s.

