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EU ACCESSION AND SUSTAINABILITY IN HUNGARY: CHALLENGES FOR FARM AND RURAL BUSINESSES

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Agricultural production remains important as a main source of income and the way of life in rural areas in Hungary. Under preparation for EU accession, Hungary has been working on restructuring its agricultural policies to promote rural development as well as greater market orientation.

The earlier social and economic transition has resulted in fundamental changes in the ownership, production and organisational structure of Hungarian agriculture. In the past decade, the production and sales of agricultural commodities have considerably decreased. The domestic demand on agricultural products has shrunk. As a result, financial conditions of farms have worsened. In order to improve the conditions of small and medium sized farms, the government introduced new subsidy measures and made other arrangements for supporting family farming in 2002.

In May 2004, Hungarian agriculture is expected to become part of the extending single market under the control of Common Agricultural Policy (CAP) of the EU. Although the detailed picture on the new CAP is not yet known, the increased emphasis on rural development and sustainability is clear for Hungarian agriculture. Opportunities of EU pre-accession aid, SAPARD, for financing advanced environment friendly rural development projects are now available for Hungarian farms. Integrated approaches to farm management have been also in the process of introduction.

This paper examines the performance of the best-practised private farms with the orientations toward sustainable agriculture and agro-tourism in the North-eastern part of Hungary. The characteristics common to these farms and the challenges that we foresee under the new CAP are identified. We believe that this paper will contribute to the better understanding of farming activities in Central Europe.

Current Conditions of Hungarian Agriculture

The area of Hungary is 93,030 km^2. The population was 10,135,000 on 1st of January 1998, which was decreased to 10,044,000 by the end of December 1999. The population density is about 108 inhabitants/ km^2.

The agricultural sector has an important role in the Hungarian national economy.

The natural conditions for agricultural production in Hungary in terms of the quality of soil, climatic conditions and topography are very favourable. About 67% of the country's area is cultivated land, which is an outstanding proportion among the European countries, which is similar to the level of Denmark. The degree of availability of agricultural land expressed in agricultural area/100 inhabitants (61.6 hectares/100 inhabitants) exceeds the European average (45 hectares/100 inhabitants) by 35%.

The farming sector in Hungary faces a large set of challenges now. The loss of external markets as well as the shrinkage of domestic markets has put many farms in a financially difficult position. With the decline in product prices, the increase in real interest rates and the lowering the value of the assets on farm, many farms have produced losses and gone bankrupt. This is typical for the newly established private farms. Since many large scale cooperative farms, which were the major producers of agricultural products under the socialist system, became privatized, in the process of privatization and restructuring, many former employees with farming skills lost their jobs and became unemployed. Some started their own farming activities using the land and equipment obtained through denationalization process, but without enough capital and comprehensive information on farming technology and market conditions. These changes related with economic transition have had particularly serious economic and social impacts in rural areas with unfavourable natural conditions. This backward area represents about 30 % of the cultivated area of Hungary.

In order to improve the conditions of small and medium scale farms in the recent years, the government has elaborated new subsidy measures and made arrangements to help family type farming activities. According to the new regulation introduced in 2002, using the available concessional loans, the eligible farms are able to extend the size of their land, to buy new machinery and adopt other elements of advanced technology.

The interest rate applied to this government subsidized credits of 10 to 100 million Hungarian Forint (HUF) is set to 7.01 percent a year with the repayment period of 10 to 20 years. In case of the use of this credit for agricultural land purchase, if the size of the land is below 100 hectare, no interest payment is necessary. If the size of the land is bigger than 100 hectare, a half of the interest is exempted from the payment. If the credit is for the investment on the farm, the interest payment is also exempted by half. If the credit is used for obtaining operational capital, 25 percent of the interest is waved for the loan of less than 10 million HUF and 50 percent exemption is feasible if the total amount of loan exceeds 10 million HUF.

The application requires some conditions for the farms. There have to be a responsible person in the family who can control the on farm property and financial bookkeeping. The recommendation by the National Association of Hungarian Farmers Societies and Co-operatives (MAGOSZ) is also required at the time of application. The size of operation has to

be below 300 hectare in total to be eligible for the loan. The farming activities need to generate more than 50 percent of the total net income. The number of employees needs to be less than 3.

Rural Development in Hungary

According to the criteria used in the European Union, a decisive proportion of the total area (96.1%) is qualified as rural area in Hungary, inhabited by almost three quarters of the population (73.6%). The proportion of fundamentally rural areas in Hungary (61.5%) is substantially above the Union's figure (47%) and their share from the total population is 3.5 times higher than the ratio of the EU member states. The proportion of the population living in fundamentally and typically rural areas is altogether 34% higher in Hungary than the Union's average, which is due to the typical Hungarian settlement structure. Hungarian settlement structure is characterised by having one dominant centre (Budapest and outskirts), by a relative lack of middle-sized towns, and a large number of small villages (less than 500 inhabitants) in rural areas. This structure leads to the concentration of one third of the population in Budapest and its closest proximity.

The rural areas, which are primarily characterised by low density of the population (59 persons/km_ on average), have both advantages and disadvantages. There are significant differences among the rural areas. The advantages and disadvantages of rural areas are presented assessing the natural, economic and human factors separately. The result of a Strengths, Weaknesses, Opportunities and Threats (SWOT) analyses of the rural areas of Hungary are the following (Ministry of Agriculture and Regional Development, 2000, p36-p42).

The advantages of having large rural areas in terms of natural factors include high degree of biodiversity, high number of sunny hours, availability of surface and ground water suitable for irrigation and recreation and opportunities for a healthier life. In terms of economic reasons, the rural areas in Hungary can become a source for cheap labor and a place to supply raw materials (wood, stone, sand, gravel, clay and reed). The regional products such as breeds, fruits and vegetables and craftsmanship are unique to the rural areas. From the view of human factors, the rural areas hold rich cultural heritage and living tradition, regionally specific professional knowledge and traditional hospitality.

The disadvantages of having large rural areas are the potential exposure to natural disasters like floods and drought, erosion and acidification of the soil and potential environmental threats from unsolved sewage water and waste management. The ratio of flats connected to the public sewage system is only 48% in rural areas in Hungary (Ministry of Agriculture and Regional Development, 2000, p.41). The ratio of sewage cleaned by biological means is also 53%. The rural areas also have backwardness in terms of economic factors such as limited access to information and services, the existence of outdated or abandoned industrial capacities and the low level of infrastructure, human services and enterprising potential due to the lack of capital. The treatment time per 100 residents in medical treatment facilities is

between 1500 to 3300 hours in the central regions in Hungary, but only 900 hours in the peripheral rural regions (Ministry of Agriculture and Regional Development, 2000, p. 41). The weaknesses of the rural areas in Hungary from the view of human factors are the trend of depopulation, the existence of ageing population, the low level of qualified people for modern jobs and the high rate of unemployment. The unemployment rate is under 10% in the center and several times as many in the peripheral regions (Ministry of Agriculture and Regional Development, 2000, p. 41).

Great needs exist in rural areas to go through structural change to catch up with the center in Hungary by taking advantage of what they have and by eliminating the disadvantages over time. As for the generation of income, the rural areas have to rely on agricultural sources until rural non-agricultural production activities develop. Since the domestic demand on organic products is growing in Hungary, the production of such premium agricultural products would be desirable in terms of securing agricultural income and the establishment of sustainable way of agricultural practices. There also exists increasing demand for ecological and agricultural tourism in the domestic and international markets. Mobilizing resources and supporting the causes connected to the promotion of environmentally friendly activities in rural areas are becoming critical for rural and agricultural development in Hungary.

The challenges are expected to continue for rural development in Hungary. The conditions such as expected EU quotas, likely WTO concessions about border control and already overproduction of mass products from intensive agriculture are expected to shrink the markets for conventional agricultural products in Hungary. Further decrease in the potential for human capital in rural areas is foreseen as skilled people are moving out of the rural areas.

In the present phase of Hungary's preparation for an EU membership, the EU pre-accession funds such as PHARE, SAPARD and ISPA have created new opportunities in the people in agricultural production and related businesses in Hungary to prepare for the activities in the new environment under the CAP after integration. However, the people in rural areas are not even prepared to file formal applications for any policy related grants and loans and business opportunities. Our market surveys in the rural areas indicate that neither the small and medium sized enterprises (SMEs), non-profit organisations, the entrepreneurs' trade unions, nor self-regulatory bodies have the necessary know-how, practical knowledge, information and skills to get ready for the new economic environment in the CAP environment. The project planning and tender management skills of the potential applicants and municipal and advisory experts need to be constantly updated in the course of the EU conforming transformation.

Policy Issues Related with the EU Integration and Sustainable Agriculture

A National Rural Development Plan (NRDP) is under preparation in Hungary. This is for Hungary to comply with the EU rules and regulations related with agricultural and rural development. There are two different programs to be executed dealing with agricultural and rural development using the EU budget. Through the Agricultural and Rural Development

Operative Program (ARDOP) of the National Development Plan (NDP), Hungary can access to the Guidance Section of the European Agricultural Guidance and Guarantee Fund (EAGGF). The National Rural Development Program (NRDP) is to make use of the financial resources from the Guarantee Section of the same Fund available for EU member countries. This NRDF has a component to promote environmentally friendly agriculture. The amount of subsidies to the organic producers is proposed to increase. The eligibility for receiving the payment will be clearly defined and will become stricter according to the CAP rules. The authorised organisations will monitor the financial flow and execution of rules and regulations.
Hungary will submit its NRDP to the European Commission for review in summer, 2003. By late fall, 2003, a list of funded programs called the Community Support Framework (CSF) may be established for Hungary. Once Hungary reaches this stage, Hungary can start using the funds for the approved programs of structural changes that can promote agricultural and rural development in Hungary.

Uncertainties exist regarding the contents and the way the new policies are implemented. More information is needed for the people who are involved in agricultural production and agribusiness activities. The information regarding eligibility for access to financial resources is urgently needed to prepare for the business activities in the CAP environment. For the agricultural producers in Hungary, besides obtaining accurate information, access to state organized advisory services will be essential during this radical changes related with the EU accession.

Organic Production in Hungary

The production of organic products has become popular in Hungary in just recent years. The number of commercially active organic farms is about 1,000 and this number has been increasing at the annual rate of about 30 percent to 60 percent for the past three years (see Table 1). About 100 entities are involving processing and sales of organic agricultural and processed products (see Table 2). In terms of land use for organic production, about 80 percent of the land allocated for organic production is for grain production (see Table 3). The rest of about 20 percent of the land is for meadows and pasture. Grapes and orchards are not yet popular for organic production in Hungary.

Cases of Organic Farms in Hungary

The upcoming Hungary's accession to the European Union will change the way agricultural businesses is run in Hungary. More environmentally friendly agricultural production practices will be given attention by Hungarian producers as well as policy decision makers as the Common Agricultural Policy (CAP) will continuously support the efforts for practicing sustainable agriculture.

In efforts to understand the current conditions surrounding ecologically friendly farms in Hungary, a sample of two different types of farms was interviewed in June, 2003 in the North Balaton region of Hungary. The structures of their

operations, challenges facing them and policy implications for enhancing sustainable way of agriculture in Hungary after the EU accession will be presented here.

One farm is a business oriented farm with dynamism that considers the EU accession as an opportunity for business expansion. The other one is a less business oriented type farm that can still survive in the new economic environment after the EU integration. Both are considered two distinct examples of environmentally friendly farms that would be observed in the accession countries in Central Europe in the near future.

Case 1 Almond Producing Farm

The first farm is operated by a trained engineer with a University degree from Technical University in Budapest and his wife who was previously involved in foreign trade state businesses. For the farm now, the husband manages the production and transportation of products. His wife does bookkeeping and external relations.

The husband was a former local cooperative member and initiated his own agribusiness activities at the early stage of transition process. He re-obtained 5 hectare of his own land around his house from the state under the new compensation law introduced in 1992 exercising his vouchers. His house and farm is located on a hill with a slight slope facing South. The farming activities started in 1741 and the house was originally built in 1762 by his ancestors. In the basement of the house, there exists a large wine cellar that can accommodate a large stock of wine and other agricultural products. In order to stand their feet on their old family land, they had to make a quick decision to take the fields around the house to be away from the cooperative in 1992.

Before 1989, they were in TV commercial time trading business and were financially able to gradually prepare the start of farming activities. The husband was 55 and the wife was 50 when they decided to start the farm business in 1992. They thought that under the new political and economic systems the future stream of income needed to be secured as pensions that they would be receiving was expected to be significantly reduced. The development of farming activities was considered important in order to diversify the future sources of income.

It required about 1.5 years to clean up the re-obtained land and to get ready for agricultural production after the requisition of the land in 1992. Grapes and wine, which are widely produced in the region, were not considered for production on farm because of abundant supply in the EU markets. Hazelnuts and almonds were identified as suitable with the existence of markets to sell the products for reasonable prices. The wife started taking a horticulture class at a local college to learn the methodology for organic farming. The both participated in a three week training course for almond production organized at the University of California at Davis. Both the husband and wife also visited Italy and

Spain to observe the production process of almonds. Besides, enough literature on almond production was collected. It was in 1994 when they decided to cultivate almonds on their farm. Since they calculated that the total working hours of 3,000 are required for managing their farm, they searched for a partner who could work full-time together with them. A young former dairy specialist joined them for its farm operation. Since then, even financial decisions have been made jointly with this partner. The husband has physically attempted to work with this partner at least once a week to maintain a good partnership with him.

After 6 years from planting almond trees, 80 kg of almonds was harvested in 2000. In 2001, the cultivated volume increased to 253 kg. The production was expected to grow to 600 kg in 2002. However, because of draught, production stayed at the level of 280 kg. In 2003, frost has damaged almond trees and the production amount is expected to be at the level of 500 kg to 580 kg, which is about 60 percent to 68 percent of the normal yield according to a state advisory service agent.

Price premium that organic almonds can receive has been a factor to start organic production for this farm. Organic almonds are able to enjoy higher price of 2,000 HUF per kg at the local markets in comparison with the regular price of 1,200 HUF per kg for non-organic almonds. Over 65 percent premium in prices exists for organic almonds in the Hungarian market. Various forms of almonds can be also sold in the markets. They can be sold in green for confectionery use and body lotion making purposes. For the use as cake material, both shapes and tastes are crucial. If roasted, almonds can be sold for Euro 25 per kg. As material for body lotion, shapes are not important, but ingredients and smell are critical for receiving higher prices. The matured almonds with carnal can be sold as seeds. Obvious differences exist in yields among almonds produced in different regions of the world. In Hungary, the average amount of production is 3 kg per tree. In Italy, this figure becomes 4 kg per tree. In California, 13 kg per tree production is feasible. The Hungarian almonds are the best in taste, but their quantities need to be limited to maintain the quality.

The size of operation has been enhanced to accommodate the efficient use of machinery that they purchased. The owners bought 15 hectare of land near their farm to take advantage of scale merit of almond production. There was a subsidy available under a government program for the purchase of farm machinery. They are skillful to utilize the tractor to plow land in an appropriate way so that soil can hold more water. Potatoes are even produced on the slopes. Potato production has been considered difficult in the hilly areas of Hungary. The fields are organized to allow them to use the tractor for plowing, weeding and harvesting.

Agricultural income does not yet exceed 50 percent of their gross income of about 10 million HUF a year. They are involved in compost fertilizer production, consulting services and translation services. Services using their machinery are also provided to other farms in the village. They offer a training course to about 50 farms in the area, as well. These

activities generate more income than agricultural production activities at this moment. The possibilities are considered for enhancing their businesses to host tourists at the wine cellar for meals and wine tasting. Currently, besides almond trees, organic wheat, organic vegetables, other fruits such as plums and apricots and 33 different types of spice crops are produced to diversify the production on their farm. This is to optimize the use of labor and to reduce the income risk arising from production and price risk and uncertainties of almond production. The wife thinks that the future farm operation should more emphasize on the production of spice crops as high return is expected form the production. The owners are confident that they can survive in the new competition within the EU. They believe that them have access to useful information and can utilize their own network to be active in the markets.

From 2002, the direct payment from the government for organic production started and this farm received 130,000 HUF in total. The owners think that 20,000 HUF per hectare subsidy for organic fruit production is not fair when the integrated farms with low chemical use receive the subsidy of 30,000 HUF per hectare.

Case 2 Farm for Animal Production

This farm is located at the edge of the North Balaton National Park. Out of 22 hectares of land, 4 hectares are for forest. The rest of 18 hectare is for pasture and grasses. Sometimes it is cultivated for hay production. Hungarian Gray cows are grown there for meat. Milk production is not practiced as it is not economical with low yields. The family consisting of the husband from the United Kingdom and the wife from Hungary moved from the United Kingdom 9 years ago to start farming this site near a major county road within the national park. When the family arrived, there was no fence in the pasture land, no roof at the stables and no water supply available even for the house. The husband worked for a large computer company for 25 years. His wife was working as technician at an agricultural college in the UK after completing her higher education in the area of agricultural sciences. The reason why they have moved to a country side in Hungary is partly because of closeness to the wife's relatives in Hungary. The family thought that more opportunities exist for farming in Hungary than in the Southern UK. The farming now marginally contributes to the family income. The wife is a local council member and works as an English-Hungarian interpreter and translator, too. The husband also teaches English to the local children and does translation. He is also capable of making stained glasses for churches and lumps. They are also registered at Budapest based travel agencies as an inn to host tourists from abroad. The two buildings were renovated using a state subsidy program through the Ministry of Agriculture and Rural Development called the rural tourism development scheme for old unused buildings. Rural tourism events are organized by the company that the family is running. The businesses are reasonably diversified to obtain the stable cash flow.

The cows can be sold for slaughtering for 250,000 HUF per head. As it takes 2.5 years to grow, net average revenue per month from raising Hungarian Gray cows for meat is about 5,000 HUF per head. The husband also keeps neighbor's horses for several months a year. This gives him a monthly fee of 20,000 HUF per horse. He keeps currently

three horses from the neighbor and owns two horses for his farm. Graft production of wild grapes is also undertaking on the farm.

The organic way of maintenance of pasture was introduced because of the natural conditions surrounding the farm. The soil is poor and any application of chemical fertilizer can not increase the yield in the pasture so much. Plus, precipitation is low and again the possibility for yield increase is limited.

Slaughtering and processing beef are tightly controlled by the government. Now, cows and bulls need to be transported to a registered slaughtering house for processing. Then, only registered large quantity customers can buy the slaughtered meat. More flexibility in slaughtering and processing processes will allow room for higher profits even for the producers. Local slaughtering would give less stress to the animals and high local demand exists for fresh beef meat.

Conclusions

Although the EU integration is already scheduled for May 1, 2004 for Hungary, the people in agriculture and rural areas are not fully prepared to be effective under the new CAP environment. Many have to be done to survive in the more competitive environment and have to be responsive to available opportunities offered under the CAP.

The interviewed organic farms had diversified sources of income including the ones from the outside of farming activities. Soft loans and grants for the Hungarian government have helped both to enjoy scale economy in agricultural production and diversification in the source of income on farm. Both stated that they were confident to be at least as competitive as now even after Hungary joined the EU. The ability to understand the direction of the change of the surrounding conditions, the willingness to adjust themselves to a new environment and the eagerness to make full efforts in the given conditions seem to explain the secrets of reasonable success in farming activities in the interviewed farms.

Organic farming is one way of securing stable in-flow of income to the farms. It is becoming part of commercial activities on farm in rural Hungary. Still domestic markets and better access to the EU markets for organic products need to be developed in Hungary. The information from successful farms is quite useful to newly starting farms at this early stage of development. Availability of public advisory services and private consulting services should be improved to meet the potential demand in rural Hungary.

References

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Table 1 The Land Area and the Number of Business Farms Involved in Controlled Organic Farming

	1996	1997	1998	1999	2000	2001	2002	Increase % (2001-2002)
Controlled land area, In hectare	11 390	15 772	21 565	32 609	47 221	79 178	103 672	30.93%
The number of farms	127	161	330	327	471	764	995	30.23%

Sources: Roszik, P., The State of Ecologic Farming and Consequences of EU accession, Agro-economy of the European Union, Volume 8 Number 4, p.15, 2003 and also in Agricultural Census (AC2000) Organic Farming in Hungary 2000-2001, Hungarian Central Statistical Office, p.11, 2002

Table2 The Structure of Organic Business Entities

Categories	Activities	Number of farms
"A"	Agriculture producers and small gardens	1116
	• Bee-keepers	193
	Collections of crops growing wild	10
"B"	Processing, packing marketing and sales	100 92
"C"	Importers	5
Total		1516

Source: Roszik, P., The State of Ecologic Farming and Consequences of EU accession, Agro-economy of the European Union, Volume 8 Number 4, p. 15, 2003

Table 3 Production Structure and Land Use of Farms Involved in Organic Production (2000) *

Agricultural cultivated land [1]	Thousand hectare	%
	157.31	100.0
From:		
Arable Land and Small Gardens	121.7	77.4
Grapes	0.7	0.4
Orchard	1.9	1.2
Grassland	6.0	3.8
Pasture	27.0	17.2
Grassland + Pasture	33.0	21.0

Source: Agricultural Census (AC2000) Organic Farming in Hungary 2000-2001, Hungarian Central Statistical Office, p.15, 2000

1. It is represents 72% of the total land area for organic production. The total land area available in 2000 was 217.4 thousand hectare, 22 % of this, namely 47, 2 thousand hectare, was used for controlled organic production. Table 3 can demonstrate the production structure of farms started some bio-farming activities. The publication also pointed out that in 2001 the land area for controlled organic production has increased to 79, 2 thousand hectare, representing 36.4 % of the total land area for organic production.