

Czech agriculture and the EU accession – a need for a new strategy

České zemědělství a vstup do EU – potřeba nové strategie

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Abstract: The paper is oriented on the argumentation of real and potential problems and challenges, which are a basis for the formation of a new strategy for the Czech agriculture and for a new conception of the Czech agricultural policy for the period after EU accession. Based on the arguments, goals of the new strategy are derived, to be discussed with a broader professional public. Possible fields of measures of the government to provide the strategic goals are presented to the conclusion.

Key words: agriculture, environment, strategy, agricultural policy, EU accession

Abstrakt: Příspěvek je zaměřen na argumentaci skutečných i potenciálních problémů a výzev, které jsou základem pro formování nové strategie zemědělství ČR a koncepce zemědělské politiky ČR pro období po vstupu do EU. Z těchto argumentů jsou odvozeny cíle nové strategie, určené k diskusi s širší odbornou veřejností. V závěru jsou naznačeny možné oblasti opatření státu k zajištění cílů.

Klíčová slova: zemědělství, životní prostředí, strategie, zemědělská politika, vstup do EU

INTRODUCTION

In May 2004, our farmers will find themselves under the conditions of the Common Agricultural Policy of the EU (CAP) and under conditions of the EU single market. Compared with the present situation, there will be many changes both in the dimension and in the structure of their supports. Also changes in the level of farm-gate prices can be expected. Undoubtedly, there will be changes even in input prices, especially as regards the expected increase in prices of land and labour. It is important as well that the Czech agriculture will function in the more developed institutional structure of the EU. There is a question, what chances and risks issue for the Czech agriculture from the new conditions. Some analytical answers and research arguments to these questions are given in the project KATO (Curtiss 2002) and in the recently completed international project IDARA (Ratinger 2003) under the 5th Framework Programme of the EU.

Issuing from the research findings, the paper in first part presents a broader background and argumentations supporting a new strategic orientation of the Czech agriculture and the Czech agricultural policy after the EU accession as well. The attention is given to comprehensive analytical conclusions related to the present situation in the Czech agriculture, to real or potential problems, challenges and opportunities in the relations of farming to environment (especially to the land usage and to the water element) and in the field of

the farm economy and the agrarian market. Long-term goals linked with the implementation of the new strategy are presented in the second part. The main policy measures supporting the realisation of the goals create the third part of the article.

BACKGROUND OF THE NEW STRATEGY FOR THE CZECH AGRICULTURAL POLICY

The new strategy for the Czech agricultural policy after the EU accession shall react on problems and challenges on three basic levels – on the world level, on the level of the EU and on the specific level of the Czech Republic.

Global situation, problems and challenges

The growth of the world population on 8–10 billion is expected in the next 50 years. Nearly 800 millions of the population suffer from the chronic hunger and undernourishment at present. It is true in the world, where surpluses of food are confronted with impediments in the form of low incomes, trade policies of the developed countries, civic and political instability, the low productivity of farming and undeveloped infrastructure.

About 75% of very poor population (about 1 billion of people) lives and works in rural areas and the population

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is fully existentially dependent on its own farming. Nearly 90% of food consumed in the least developed countries is locally produced on farms with the very low productivity. However, the increase of productivity is connected with social and environmental risks. The annual losses on the soil productivity as a consequence of the erosion are globally estimated to 0.1–0.2%. Contrary to this fact, the annual increase of productivity as a consequence of the technological progress is about 2%. However, the production increases by the intensification on farms in the developed countries and by an expansive land usage in developing countries – by the conversion of natural grassland and forests into productive farming systems. Both approaches lead to the losses in biodiversity. The losses in biodiversity, the soil degradations and the expected climatic changes can in turn result in the decrease of the productivity in agriculture, particularly in poor regions in the world.

So the growth of the productivity in agriculture is immanently linked with global environmental problems, especially as regards water, soil and biodiversity:

- a) In the larger part of agro-systems, water represents the most serious limiting factor for the growth of production. One third of the world population lives in the regions with serious problems in water supply today. It is estimated that nearly two thirds of the population in developing countries will live in regions with the water deficit by 2025. At the same time, the irrigation consumes by about 70% of all water consumed by agriculture, industry and households, but 70% of this water is wasted through ineffective irrigation systems.
- b) During the last 12 000 years, the mankind has cultivated for its nutrition about 7 000 plant species. Only 15 plant species and 8 animal species create the basis for food today. Farming together with the climatic changes contributes by the largest share to the global changes of the conditions for the biological diversity.
- c) The increasing variability of the climate and its long-term changes create harder conditions for farming. The waves of hot and rainy periods, floods and droughts will obviously occur more frequently.

The provision of the sufficient supply of agricultural production to cover the demand of the growing world population, to eliminate hunger and to improve the standard of living in rural areas particularly in the developing countries has become the key global problem. However, the solution of the problem should not deteriorate the environment, deepen the social inequality and increase negative impacts on the health of the world population. At the same time, water has become the natural limiting factor with the growing urgency.

Situation, problems and challenges of Europe – the European Model of Agriculture

The European Union (EU) will become the largest world producer, exporter and importer of the agrarian products

after the enlargement. In spite of the relatively worse climatic, natural and demographic conditions, compared with the world regions with the best production conditions, the EU is producing high surpluses of the basic agricultural products. As usual, the surpluses are exported with subsidies to the account of taxpayers. The dimension of agriculture and the agricultural employment are given by the protectionist CAP.

The present CAP has been for the long-time in the conflict with the requirements of the World Trade Organisation (WTO), particularly as regards the level of the protectionism and the release of the trade space for the production and employment in agriculture of the developing countries.

The strategy of the EU is based on the so-called European Model of Agriculture consisting of the four pillars:

- 1) The full-area multifunctional agriculture, sufficiently competitive in the production of private goods and at the same time handling carefully the environment (producing parallel to the private goods the public goods in the field of the environment).
- 2) The agriculture based on small and medium family farming.
- 3) The agriculture deeply linked with the rural development.
- 4) The agriculture producing safety food of the best quality, it means respecting ever stricter food safety standards and standards related to the ways of farming.

The European Model of Agriculture reacts in that way to the social demand for the development of a socially balanced and sustainable farming, contributing to the maintenance and development of the European landscape and the historical structure of rural areas. The preservation of landscape, the recovering of the biological diversity and the water protection after the long-term functioning of the intensive, industrial farming and the preservation of countryside represent the basic long-term goals of the EU in this field. The international protection of nature and biodiversity in the EU is forced by the common system NATURA 2000 for the protection of animals, plants and special natural localities. The water protection is given by the Directive 2000/60/EC as a framework for the EU activities in the field of the water economy. The improvement of the purity of water with the respect to agriculture is forced by the so-called nitrate directive.

The industrial European agriculture together with other factors endangers food safety in the last period. Competitiveness of the European agriculture under the ever stricter environmental, social and consumer's standards resides particularly in the production of a higher quality and a higher value added, in the combination with regional diversity and specificity of the products.

The European agriculture (together with forestry) has a high potential for the production of the biomass for the non-food use, particularly for the production of energy. The continuous increase of the share of renewable sources of energy in the total consumption of energy is one of the goals of the EU.

Specific situation, problems and challenges of Czech agriculture

Situation, problems and challenges in the relation to agriculture and environment

Except common problems of agriculture in the European region, Czech agricultural area has its own specifics to be considered in the formation of its strategy:

The Czech Republic (CR) is the water divide of the Middle Europe. The water flows spring and go to three seas (the Northern Sea, the Baltic Sea, the Black Sea). Czech care for the retention capacity of the land and for the purity of water significantly influences the flow and water quality in more European countries including the new entrants.

Agriculture together with forestry and water economy are absolutely the largest land users in the CR. The agricultural utilised area occupies (to 31. 12. 2001) about 54.2% of the total Czech area, it is 4 273 thousands ha. The water area occupies about 160 thousands ha, of which ponds and other small agricultural water basins represent about 51 thousands ha. About 60% of agricultural land is located in the hilly and mountainous regions and is of worse quality. At the same time, the share of grassland in the total acreage of the agricultural land is inadequately (considering the natural and climatic conditions) low (22.7% compared with 35–50% in the EU countries with similar natural and climatic conditions). The ways of agricultural land usage significantly influence the quality of the water element and the flow of water in the countryside.

Agriculture (including fishery) directly influences the so-called agricultural (“small”) water – ponds and other small waterworks (51 thousands ha, however, it is not only the question of acreage, but also the capacity of entrapped water). Agriculture influences indirectly the quality of all surface water in individual areas.

Czech agriculture (and the European one as well) with its stress on the intensive, industrial way of farming has become one of the significant area and point polluters of the underground and surface waters. While the area pollution from Czech agriculture has decreased since 1989 (especially as a consequence of the economically enforced reduction of the utilisation of fertilizers from 223 kg pure nutrients/ha in 1989 to 92.2 kg pure nutrients/ha in 2002 and the utilisation of pesticides to 1.3 kg effective elements/ha in 2002), the problem of the point pollution (particularly in extremely large livestock production units, which prevail in Czech agriculture) has remained open. The supply of drinking water of the required quality is thus impeded by higher costs. According to the so-called EU nitrate directive, about 42% of the Czech agricultural area and about 36% of the total Czech area is therefore ranged into the nitrate sensitive areas with stricter standards for farming in the relation to water element.

Czech agriculture is also an important consumer of water. Besides the livestock production, about 150 thousand ha are irrigated. However, the irrigated acreage has

not been enlarging and the irrigation equipments has not been maintaining and restoring yet.

The heritage of the previous regime and farming are extremely large fields for the industrial farming without any natural barriers – game refuges, wetlands, small water basins, balks, field roads with alleys, etc. The share of arable land in the total acreage of agricultural land (71.8%) is extremely high. A large part of the agricultural area is exposed to the risk of water (42%) and wind (7.5%) erosion and the losses of humus. Above it, the large-scale machinery contributes to the outstanding soil compaction and thus to the deterioration of the soil retention ability. Drainage equipments on 1 087 thousands ha, seriously neglected at present, do not fill their functions and they rather have contra-productive impacts on the water regimes in the countryside (however, the relevant areas create a potential for wetlands).

The presented and still prevailing ways of the land usage together with the regulation of small water flows and with the neglected maintenance of small water-sheds (long-term neglected silting) lead to the serious reduction of the retention capacity of countryside. This fact significantly contributes e.g. to the negative impacts of the floods in 1997 and 2002. It is estimated that improving of the retention capacity of countryside could reduce the negative consequences of the floods by about 15% at minimum.

In some regions (South Bohemia, Czech-Moravian Highlands, etc.), agricultural water has an outstanding importance for the scenic value and for a recreational function of the landscape and from this for the development of the rural tourism. Above it, some waterworks and the whole landscape have the character of the national or even world natural and cultural heritage (e.g. the Třeboň region). However, the intensive large-scale fishery outstandingly reduces the recreational value of the water sheds and it functions against the development of the rural tourism. Also agricultural production contributes to these negative effects (eutrophisation of water).

Situation, problems and challenges in the field of production, economy of the agrarian sector and market

Agricultural potential of the CR exceeds the domestic demand roughly two times. In spite of more than 30% decrease of the gross agricultural output compared with the pre-reform period, the domestic market is characterised by the permanent tendency to surpluses, pressing down prices in the market, or increasing demand for the state subsidies, respectively.

To the contrary with the situation in the EU, Czech agricultural production realizes under conditions of extremely high concentration of production resources. About 75% of agricultural land is occupied by about 5% of farms. It represents the extreme dual farm structure comparable in the future EU-25 only with the Slovak Republic. About 75% of agricultural land is farmed by co-operatives and companies and only 25% of the land is occupied by indi-

vidual farms including family farms. Most of the land on farms (more than 90% on average) is leased by private landowners or by the state. It represents the enormous instability for a long-term orientation of farms.

The structure of the land usage does not correspond with the natural and climatic conditions of the CR (more than 70% of the agricultural land is arable land). As a consequence of the situation in the agricultural market, there is a growing acreage of the untended, or even abandoned land particularly in the border regions or in the LFA regions.

Even though the restructuring on farms has been in the progress during the reform period, an extreme polarisation in the farm effectiveness still continues. In comparison with the future competitors in the EU-15, there is a substantially lower effectiveness in the utilisation of production factors in average (e.g. less than half labour productivity in the livestock production).

As a consequence of the applied procedures of restitution and privatisation and the necessary investments, farms are heavily indebted. There is a question of the three generations of debts: pre-reform debts towards the state, the debts from restitution and privatisation (transformation shares of the co-operatives, starting loans of the state for new farms, the debts for privatised non-land assets) and new debts (bank operational and investment credits). The indebtedness issues in the lack of inner sources of farms and creates obstacles for them regarding purchasing the land (including the privatisation of the state land) or for new investments needed to comply with ever-stricter environmental standards and standards for animal welfare and food safety.

Particularly since the second half of the nineties, the incomes of farms have been negatively influenced by the growing risks, caused by the extreme weather instability (floods, droughts), and by the price volatility in the market. It is justifiable that the weather instability is a part of the global climatic changes and that the risks for the Czech farms will continue in the future.

Foreign capital, gradually penetrating into the Czech agrarian sector, usually brings the improvement in the economic efficiency of farms. However, the penetration of foreign capital into agriculture is frequently linked with the speculative transfers of land, particularly in the border regions.

Czech food industry is not consolidated yet. It is characterised by over-capacities (in comparison with the domestic supply of agricultural raw materials) and by the still large number of firms not fully compatible with the EU food safety standards. The situation varies according to the branches of the industry. The branches of the first stage of processing (meat, dairy and mill firms) and smaller firms show the least progress in the consolidation and food safety.

Czech retail sector, into which foreign direct investments significantly penetrate and which represents the decisive power in the agrarian market, is not still consolidated as well. The sharp competition prevails in the retail market. However, the sector is still not saturated in the segments of super- and hypermarkets.

Compared with the situation in the developed countries (with exceptions like the market of agricultural machinery), Czech agrarian market is not developed in the whole chain (inputs – primary agricultural production – processors – sale). The state interventions function in the decisive market segments (grains, oilseeds, milk, sugar, etc.), trying to eliminate failures and high transaction costs in the market (according to the OECD estimations higher by about 20–30% than in more developed markets). The higher transaction costs are caused e.g. by informal (cartel) agreements among (multinational) companies, by the functioning of (local) mono/oligopolies, or mono/oligopsonies, respectively, by the insufficient co-operation among producers and partly also by the too aggressive behaviour of the retail networks. Among others, the higher transaction costs are one of the main impediments for the realisation of higher farm-gate prices.

Czech agricultural trade is influenced by export subsidies on surpluses. In the segment of the so-called competitive products and in the relations with the developed countries, it is characterised by the permanent tendency to export products with a lower value added and to import products with a higher value added. This reality has the negative impact on the trade balance.

Under the EU conditions, the substantial enlargement of the trade relations with the neighbouring EU markets can be expected, including the releasing of the current links in the chains input suppliers – producers – processors – sale. The adjustment to the market requirements will play the decisive role for all market participants to maintain their competitiveness.

LONG-TERM GOALS FOR THE NEW STRATEGY OF CZECH AGRICULTURAL POLICY

The new strategy for Czech agricultural policy after the EU accession shall react to the mentioned global, European and Czech specific problems and challenges. In the relation to the global problems, there is a need to prevent the abandonment of agricultural land, accompanied by a larger irreversible conversion of the land to other utilisation including forestation. In the relation to the European problems, it is a need to increase the competitiveness of Czech agrarian products towards the third countries based on a higher quality and value added of products. At the same time, it is a need to maintain and improve the scenic value of the landscape, to lower pressures of farming on the biological diversity and to deepen the farm development with rural development (particularly on the basis of farm diversification) and to increase the non-food use of agricultural (and forestry) production (especially as renewable sources of energy). It shall all be compatible with the respect to the necessary restructuring and modernisation of farms and food industry firms to increase their competitiveness towards the present and new EU countries under the ever stricter environmental, social and consumer' standards.

The new strategy LANDSCAPE – WATER - BIODIVERSITY – RURAL DEVELOPMENT shall reflect the intersection of the global, European and Czech problems and challenges and shall be oriented on the following main goals:

- (1) To increase the competitiveness of Czech agriculture and food industry toward the present and new EU countries and towards the third countries based on a higher quality, value added and regional diversity of products.
- (2) To maintain an adequate employment in agriculture and to improve the standard of living of agricultural population as a part of rural population based on the higher efficiency in the production of private and public goods from agriculture and from the downstream sectors and based on the diversification on farms to non-food use of agricultural production and to non-agricultural activities in rural areas.
- (3) To improve the scenic value and recreational role of agricultural landscape, with the preference of the conservation of the (temporarily) excessive agricultural land for a possible agricultural utilisation in the future; together with the maintenance of the national cultural heritage of the important waterworks and areas to develop a multifunctional character of fishery for the improvement of the recreational role of agricultural water sheds and for the development of rural tourism.
- (4) To increase substantially the retention ability of agricultural land, it means to stimulate the conversion of arable land into grassland, to speed up the land consolidation in cadastres including the restoration of small water sheds and wetlands, to improve functioning of the drainage and irrigation systems, to speed up the revitalisation of small water flows and the silting of ponds, etc.
- (5) To improve the quality of surface and underground waters through better farm practices.
- (6) To increase permanently the quality and bio-topic value of Czech agricultural land, particularly through its incorporation into the NATURA 2000 system.
- (7) To increase gradually the share of renewable sources of energy from agriculture (and from forestry and water economy) in the total consumption of energy and to tend to “energetic self-supplying” of rural areas based on the renewable sources of energy.

POSSIBLE MEASURES AND INSTRUMENTS OF THE STATE TO PROVIDE FOR THE GOALS OF THE NEW STRATEGY

The presented arguments for the changes and goals of the new strategy for Czech agricultural policy must go

through the “filter of an institutional assessment”, that is through the filter of values and beliefs of the decisive political spectrum of the society¹. Only after the “institutional assessment”, it is possible to formulate detailed adequate policy measures to follow the strategic goals. The policy research has been preparing now the basis for the “institutional assessment” and therefore only the main fields of policy measures can be presented. The measures can be split into those subordinated to the EU framework and specific “Czech measures”. The main EU measures (with a higher hierarchy) are as follows:

- Production limits and quotas and other limiting conditions issuing from the conclusions of the EU Copenhagen Summit (December 2002) and from the Accession Treaty between the CR and the EU (signed in Athens, April 2003).
- EU supports:
 - direct payments linked with the production limits and quotas, allocated through a simplified scheme and conditioned by good farming practices, or by cross-compliance conditions (up to 18 directives and regulations related to environment, food safety and animal welfare), respectively;
 - structural supports under the Horizontal Rural Development Plan (HRDP);
 - structural supports under the Operational Plan – Agriculture;
 - state aid;
 - market price supports through interventions of the EU in the market (export subsidies, supports for private storage, etc.).
- EU Directives for the water policy of the EU, nitrate sensitive areas, system NATURA 2000, etc.

Under the mentioned measures, the Czech Republic will have the space for the formation of own policy measures particularly in the following areas:

- orientation and structure of the HRDP;
- orientation and structure of the Operational Plan – Agriculture;
- utilisation of state aid;
- special conditions for allocation of direct payments.

CONCLUSION

The paper presents the analytical background for the formation of the new Czech agricultural policy after the EU accession, based on research findings. A complete strategy was prepared by October 2003, to be discussed among stakeholders and to be assessed from environmental, economical and general welfare criteria. From the economic point of view, a cost/benefit analyses should be

¹ The article was prepared in August – September 2003. After this date, the strategy was discussed with non-governmental organisations in the agrarian sector and on the level of the ministries of agriculture and environment. In the beginning of January, 2004, the strategy was accepted by the minister of agriculture to go through the Strategic Environmental Assessment (according to the law) and through the economic and general welfare assessment in the near future.

provided assessing particularly impacts of the strategy on the sector and farm economy, on the commodity economy and on the transfer efficiency of supports. The assessment shall also provide the analysis of risks and threats stemming from the implementation of the strategy.

REFERENCES

Curtiss J. (2000): Efficiency and Structural Changes in Transition. Shaker Verlag, Aachen.

Koncepce agrární politiky pro období před vstupem České republiky do Evropské unie (2000). MZe ČR – VÚZE, Praha.

Ratinger T. et al. (2003): Integrated Strategy for Agricultural and Rural Development in the Czech Republic. Working Papers from the IDARA project.

Zprávy o stavu zemědělství ČR 2000–2002 (2000–2002). MZe ČR, Praha.

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