

GEOGRAPHICAL ASPECTS OF THE TRANSFORMATION OF AGRICULTURE OF THE CZECH REPUBLIC

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SUMMARY

The objective of this paper is above all to inform about the regional geographical differences arisen on the above transformation processes. The paper is divided into two basic chapters, the first paying attention the main trends of the transformation processes of the agriculture of the Czech Republic in the period after 1990. In the second part is paying attention some geographical aspects of the transformation.

KEY WORDS

Agriculture - transformation - Czech Republic

INTRODUCTION

Agriculture of the Czech Republic (further CR) belonged to strongly preferred branches in the centrally directive system, from which there followed its inadequate dimension and a low national economic effectivity. The transition to market economy then meant a marked pressure on the adaptation of agriculture to new economic conditions and sale possibilities from the point of view of its dimension, structure and effectivity. The transformation period of economy of the CR requires many fundamental changes in all spheres of the social movement. It is a multidimensional movement depending on a number of economic, social, political and other connections from which it was not possible to recognize and control sufficiently all of them (Jeníček et al., 1991). The first stages of our whole reform were, besides, biased by the survival of old habits and structures and insufficient positive adaptability to new conditions following from them.

An inseparable part of the economic policy of the country is also agricultural policy which is stressed by particular functions of the agrarian and food complex in the national economy and the reproduction of fundamental living needs of the society during the specific biological production process, a long-term production cycle with conspicuous ecological connections. The transition of agriculture and food processing branches of the central directive management to the market economy represents a complex transformation process which includes qualitative changes in both factual and system conceptions that must react operatively to the situation and conditions of the developing internal and foreign trade (Agrární program ČSFR, 1991).

The transformation process itself of the agriculture of the CR then proceeded under the influence of a number of legislative measures resulting in their gradual privatization. Among the most important measures must be included above all Acts No. 229/91 of the Digest, No. 92/91 of the Digest and No. 42/92 of the Digest. At the same time it is possible to state that economic changes and those of the rights of property were going on more quickly in agriculture than in most production branches of the national economy. The transformation of agricultural cooperatives, the privatization of state farms and the extension of the operation of the market economy to the forming physical entrepreneur subjects thus changed the pattern of proprietors' relations in agriculture.

The private sector in agriculture thus, as early as in late 1993, i.e. after finishing the process of transformation of agricultural cooperatives, participated in the overall agricultural production by 77 %. New private entrepreneur subjects in agriculture originated in the reform period and, by 31 Dec., 1993 controlled as much as 84.6 % of the total area of the agricultural land fund of the CR and by 31 Dec., 1994 controlled even 97.3 %. (Zpráva o stavu českého zemědělství v roce 1994, 1994).

In that period agriculture became adapted to new conditions.

The number of manpower was reduced, the production structure of agricultural enterprises was simplified, the numbers of farm animals (particularly cattle) was reduced as well as the consumption of material inputs with the subsequent lowering of agricultural market production and the offer of agricultural products. Besides, investments with a simultaneous decrease of fixed assets and particularly reserves (Kolektiv...1994).

Thus, as late as in December, 1989 more than 531 thousand workers in agricultural production, up to the end of 1992 their number dropped to 311 thousand, in the course of 1993 to 260 thousand, and in the course of 1994 to 216 thousand (Fig. 1). This trend is supposed to continue until 1995, when there will be a relative stabilization of the enterprise structure in the branch of agricultural production, and the number of workers should stabilize on about 200 thousand (Trnková, 1993). Also the number of cattle and cows recorded conspicuous changes, from the maximum of 3,506,000 cattle and 1,247,000 cows to 2,030,000 cattle and 768,000 cows to 1 Mar., 1995.

The share of agriculture in the gross domestic product dropped in 1993 to 5 % and in 1994 to 4.5 %. In most advanced countries this share reaches only maximum 3.5 %. The share of workers in agriculture in the total number of employed persons dropped to 6.4 % in 1994 and further to 5.1 % in 1995. In the years 1989 to 1994 the total number of workers in agricultural original production decreased to 40.7 % of the original number.

The share of employed persons in agriculture thus reaches, in some advanced countries, due to state supports, higher values than those in the CR, e.g. Italy 7.4 %, Austria 5.2 %, etc.

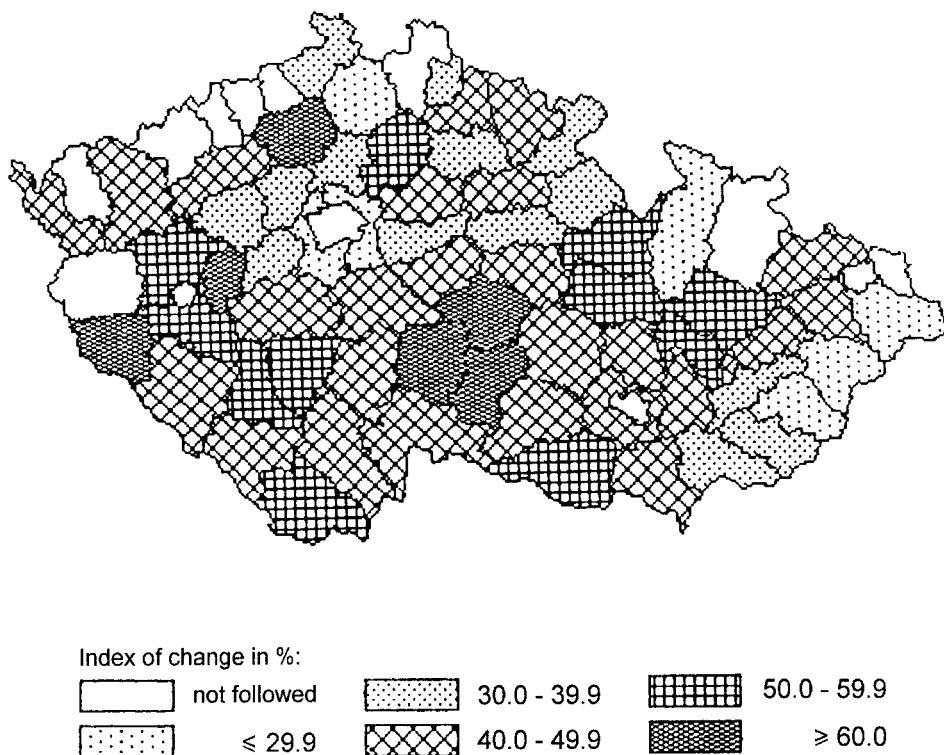


Fig. 1. The change in the number of permanently active workers in the ACs to the number in the newly established Acs and trading companies to 31 Dec. 1993 (1989=100%)

The privatization of agriculture continues, but the transformation of ownership relations has not yet been finished. Despite a significant shift in the transformation of the agricultural sector ownership changes have not been concluded so far. The postponement of the term of asserting restitution claims according to Act No. 229/91 of the Digest delayed above all the privatization of the state farms. At the end of 1993 1,679 agricultural cooperatives (further AC) and other trading companies were registered in the CR. A prevailing majority of the owners in agriculture thus took up their ownership rights. The number of land owners in the CR is, however, many times higher than the number of entrepreneur subjects. Most of them farm on leased land. The share of leased land in the total area of land farmed by entrepreneur subjects of physical persons thus makes about 60 %.

The size of private enterprises is much higher in the CR than in the EU countries. The process of privatization of the state farms, the transformation of agricultural cooperatives and restitutions resulted by 31 Dec., 1994 in an enterprise structure in agriculture as expressed in Table 1. The mean area of enterprises in the private sector, without farmers up to 1 ha of agricultural land, thus makes 137 ha, which conspicuously exceeds the size of private enterprises in advanced European countries (EU 14.7 ha).

Entrepreneur form - entrepreneur subjects	No. of subjects	Area of agric. land		Mean area [ha]
		[thousand ha]	[%]	
Legal entities formed by the transformation of agr.cooperatives and by the privatization of state farms	2 767	3 143	73.4	1 135.9
Physical persons (private farmers)	60 666	993	23.2	16.4
out of which: up to 1 ha	27 402	971	22.7	35.7
Private sector total	63 549	4 167	97.3	65.6
Private sector total without farmers up to 1 ha	30 285	4145	96.8	136.9
Other subjects (residual estates, school and military farms and other special purpose farms	345	145	2.7	420.3
Total	63 894	4 312	100.0	67.1

Table 1. The enterprise structure of agriculture in the CR (to 31 Dec., 1994)

The transformation of agriculture in the Czech Republic witnessed a sort of half-time in 1994. On the one hand, there had been essential changes as compared with the situation at the end of the 1980s. On the other hand, the enterprise structure of the agriculture of the Czech Republic remains to be specific, in comparison with the agricultural structure of a number of developed market economics non-standard. It appears most conspicuously in the hitherto high share of the co-operative sector, unlike the dominant position of family farms in the agriculture of EU countries. In the course of the process of transformation of agricultural co-operatives in the CR, the hitherto 1,205 AC farming on 2,225,000 ha of agricultural land with the mean area of 2,117 ha at the beginning of 1990, changed into 1,334 co-operatives of different organizational forms and 324 trading companies. The newly formed ACs farm on the whole on 2,117,000 ha of agricultural land, their mean area being 1,587 ha, various trading companies then farming on 216,000 ha of agricultural land with the mean area of 668 ha. From what has been said there clearly follows that the agrarian structure with the dominance of family farms (prevailingly small-size), as is the case in west European countries, will evidently not be renewed in the agriculture of the Czech Republic (Divila, 1994). Anyway, the hitherto enterprise form in the agriculture in those countries can hardly be considered to be market conforming, with respect to the intensely protectionist agrarian policy practiced for a number of past decades (Divila, 1994). An important part of the agriculture of the Czech Republic has already been taken by different trading companies, and their share will evidently increase. In the medium-time prospect a balanced share of co-operatives, companies and private farms can be

assumed, the sizes of those subjects will be the result of their enterprising success and, at the same time, it will be delimited by realistic production and sale conditions. Together with the corresponding size structure of those enterprising forms that might be a good assumption for the formation of foundations of the future prosperity of agriculture in the CR on the microeconomic level. That, however, is not determined only by the enterprise structure of that branch.

SOME GEOGRAPHICAL ASPECTS OF THE TRANSFORMATION

The main objective of the present paper was to pay attention above all to regional geographical differences arisen on the territory of the CR under the influence of the above transformation processes. From the overview of the state of transformation of agricultural co-operatives it is possible to follow considerable regional differences between the individual districts of the CR. The growth in the number of newly formed co-operatives and trading subjects in comparison with the original number of ACs before the transformation is really much different among the regions studied. In the overview we can find districts in which this number has practically not changed (such as Kutná Hora, Domažlice, Litoměřice, Znojmo, Nový Jičín, Hradec Králové, etc.), but also districts in which the number of newly established organizations reaches almost a double or more of the original number. Among such districts are e.g. Kladno, Náchod, Blansko, Brno-country, Břeclav, Prostějov, Třebíč, Žďár nad Sázavou, but above all Zlín, where the number of newly formed enterprises increased from 14 to 53. In this overview those district were not studied in which the state sector prevailed before 1989, and where the situation is very complex now, because the privatization of state farms has not yet been finished. In the district of Tachov 26 new companies, limited, have been formed which farm on almost 30,000 ha of agricultural land, whereas in the districts of Bruntál, Liberec, Teplice, etc. such enterprises have not yet been established. In the whole process of dividing the original ACs it is not possible to follow any mutual connections or regularities, but it is necessary to study and know the problems of the selected districts individually. Nevertheless, it is possible to express the assumption that this process was affected by a number of factors, such as conservatism and/or frequently leftist thinking of a part of agricultural population, further the impossibility of a different assertion of the country population, above all in the marginal territories, but also a great influence of large consumer centres and the rate of penetration of the "new" market-trade thinking. In numerous territories also the overdone concentration of ACs was reflected in relation to natural conditions, where it is practically impossible for large agricultural enterprises to operate successfully (Blansko, Třebíč, etc.). Of interest is also a considerable increase in new enterprises in typical districts near large towns (such as Brno-country, Benešov, Kladno, Plzeň-south, Olomouc, etc.), where evidently elements of the suburban agriculture permit the formation of a greater number of specialized enterprises. Quite non-typical is the process of the formation of new enterprises in the district of Zlín which was,

to a certain extent, affected by the disintegration of the well-known agrocombine of Slušovice (see Table 2).

District	ACs before transformation		Newly established coop and trading subjects after transformation		
	No.	ha of agr. land	No.	ACs	ha of agr. land
Benešov	22	59 847	37	24	51 422
Beroun	10	22 500	12	10	22 400
Kladno	9	24 736	17	8	17 484
Kolín	21	46 467	31	19	33 654
Kutná Hora	16	44 787	18	8	42 131
Mělník	12	19 139	10	7	19 273
Mladá Boleslav	23	46 000	24	20	46 000
Nymburk	25	48 812	38	22	42 975
Praha	21	39 955	24	9	22 290
Příbram	19	43 294	23	22	38 608
Rakovník	21	30 152	30	19	30 916
České Budějovice	21	55 372	28	14	48 887
Český Krumlov	4	10 250	4	4	8 870
Jindřichův Hradec	24	56 359	27	24	50 235
Pelhřimov	28	66 950	36	26	61 623
Písek	21	54 066	26	18	52 148
Prachatice	14	24 255	17	14	21 452
Strakonice	32	62 000	38	19	57 000
Tábor	32	69 595	43	29	62 965
Domažlice	19	38 920	21	16	38 544
Cheb	4	4 269	4	4	4 155
Karlovy Vary	4	9 924	4	3	9 740
Klatovy	28	60 357	31	18	52 728
Plzeň south	19	56 129	33	31	50 318
Plzeň north	15	30 795	17	17	29 010
Rokycany	4	18 578	4	2	17 823
Sokolov	1	221	1	1	221
Tachov	-	-	26	4	29 474
Česká Lípa	4	6 256	4	3	6 221
Děčín	4	5 300	5	4	5 078
Jablonec nad Nisou	14	17 563	24	10	12 187
Litoměřice	21	41 196	21	16	35 038
Louny	21	38 263	27	17	28 786
Ústí nad Labem	4	10 009	4	4	10 009
Havlíčkův Brod	38	53 026	42	28	54 310
Hradec Králové	21	39 802	23	21	39 252
Chrudim	24	34 486	30	19	39 102
Jičín	25	48 730	29	22	47 356

District	transformation		subjects after transformation		
	No.	ha of agr. land	No.	ACs	ha of agr. land
Náchod	12	31 892	24	12	26 001
Pardubice	19	41 984	28	12	37 159
Rychnov nad Kněžnou	18	38 257	27	18	32 636
Semily	20	27 019	22	16	24 539
Svitavy	25	55 283	30	18	51 723
Trutnov	12	20 383	15	11	17 883
Ústí nad Orlicí	32	52 000	37	27	50 300
Blansko	14	38 964	25	18	34 181
Brno	34	47 211	54	37	45 148
Břeclav	31	55 075	55	33	52 150
Zlín	15	30 000	53	18	28 929
Hodonín	21	46 936	31	16	44 626
Jihlava	20	54 535	30	24	46 395
Kroměříž	18	38 590	21	21	35 462
Prostějov	20	45 531	38	20	41 021
Třebíč	35	78 200	53	41	66 199
Uherské Hradiště	18	43 048	25	11	39 311
Vyškov	15	38 252	20	9	34 811
Znojmo	25	62 938	25	22	54 234
Žďár nad Sázavou	35	73 837	51	39	62 800
Bruntál	1	800	1	1	800
Frydek-Místek	12	34 500	17	10	27 000
Nový Jičín	15	40 552	16	12	38 239
Olomouc	24	62 064	33	28	61 867
Opava	16	46 773	27	19	41 769
Přerov	22	45 423	28	22	46 251
Šumperk	15	34 696	19	13	32 284
Vsetín	13	27 762	20	8	20 353
Total	1 205	2 550 862	1 658	1 092	2 333 746

Table 2. An overview of the state of transformation of agricultural cooperatives in the CR (to 31 Dec.1993)

Another phenomenon documenting significantly the process of the transition of the agriculture of the CR to the market mechanism is the marked reduction of the number of farm animals, above all of cattle. Figs. 2, 3 express the changes in the number of cattle and cows according to the individual districts. In them we can also follow considerable regional differences. In this development it is again very difficult to find any connections or contingencies, even though at first sight it is possible to see the relatively smallest reduction in a number of districts of south Bohemia and the Bohemian-Moravian Highlands. On the other hand, a conspicuous reduction of the numbers is surprising in the districts of the Prague agglomeration, particularly in cows, since milk production should

belong among typical elements of the suburban agriculture. This development will evidently be affected by such elements as the location of the processing plants (e.g. the network of meat processing plants in the Bohemian-Moravian Highlands), the introduction of damping programmes in agriculture or the change of the orientation of animal production from rearing cattle to breeding pigs, particularly in some lowland districts (Břeclav, Kroměříž, etc.).

A conspicuous reduction of the intensity of agricultural production which is accompanied above all by the cutdown of employees, the greatest drop in cattle and cows, by a lowered production of milk, etc., is reflected above all in districts in the hinterland of large cities and/or in districts of some fertile regions - the Elbe basin, Haná - unlike districts of the Bohemian-Moravian Highlands (see Figs. 1-3).

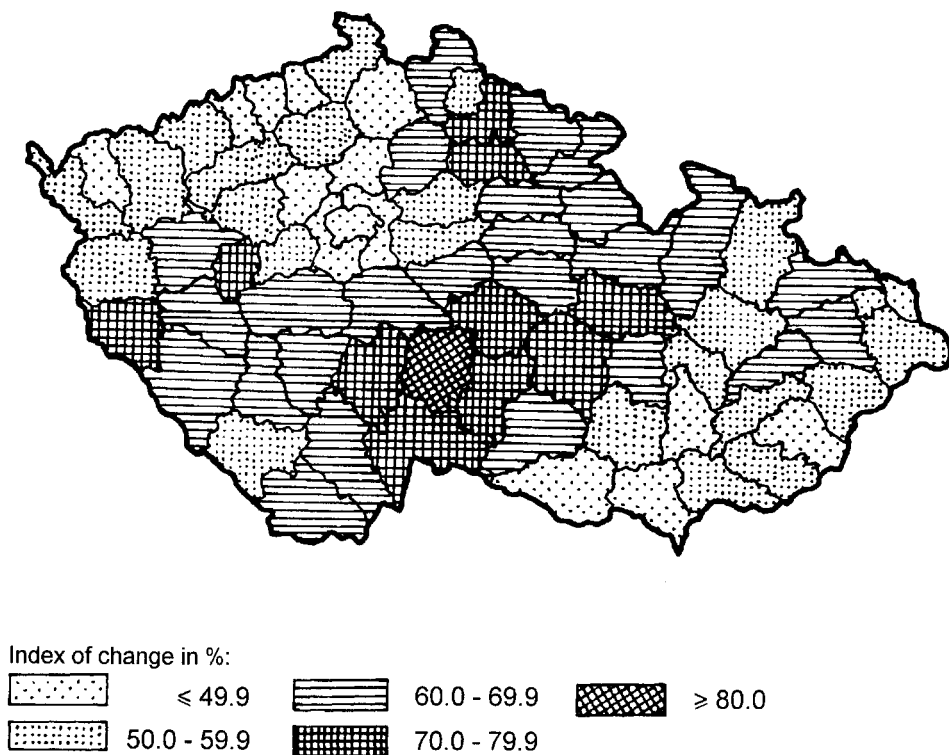
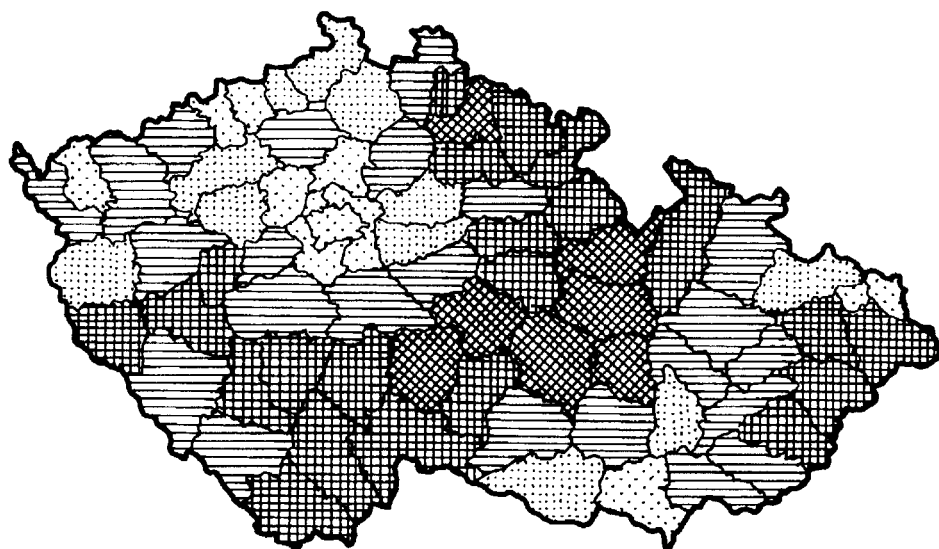


Fig. 2. The change in the number of cattle for the period of 1990-1994 (1 Jan. 1990=100%)

These marked geographical differences can be substantiated above all by the low rentability of agricultural production, as well as by a low wage level in that branch. The exodus of workers from agriculture was thus the greatest in those regions where the

population found greater working possibilities in other and better paid branches (e.g. the hinterland of Prague). The lowest drops are, on the other hand, registered in marginal territories, where the population often has not other possibilities of working than in agriculture, and that is why relative drops in those territories are lowest.

A marked reduction of the number of cattle and particularly cows is also linked up with a high overproduction of beef and milk in the period before 1990. After that year our national economy did not need such a lot of those products, which was above all by the price liberalization of foodstuffs, the break-up of the COMECON, the oversaturation of advanced foreign markets with those products as well as a conspicuous reduction of our export.



Index of change in %:

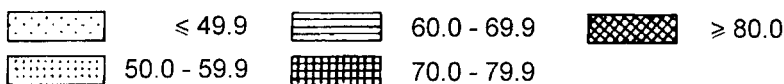


Fig. 3. The change in the number of cows in the period of 1990-1994 (1 Jan.1990=100%)

Comparing Figs. 2, 3 in which the development of the number of cattle and/or cows is expressed by the change index for the period of 1990 to 1993 or 1990 to 1994, it is possible to follow the fact that the drop in the number of cattle and cows is still going on, regional differences among the individual districts still increasing for the period of 1990

to 1994. That means that in the districts where the lowest drop was registered, also the trend to reduction is the lowest, such as in the districts of Jindřichův Hradec, Pelhřimov, Tábor, Domažlice, Havlíčkův Brod, etc. On the other hand, in most districts where the drop was the largest, this trend continued, e.g. in the districts of Prague-east and west, Sokolov, Břeclav, Zlín and others. On the other hand, in some districts of the CR it is already possible to register a stagnation or a mild increase in the numbers of animals, such as in the districts of Most, Pardubice, Rychnov nad Kněžnou, Kutná Hora, Tachov. This phenomenon can perhaps be explained only by the conjecture that in the above regions a certain threshold level has been reached, simply a further drop is no longer possible for the reason of coordinating the demand and the offer, and/or for landscape forming and population reasons.

CONCLUSIONS

In the conclusion it is possible to state that the backbone of economy on the country area will be agriculture even in the future, but also with other varied forms and activities of small and medium entrepreneur activities. The basis of the development will, however, rest upon a purposeful support and the creation of new workplaces in the country. In regions where agriculture has not a decisive importance for the economy of the region, it will be necessary to support new undertaking activities in dependence on the character of the region. The country area has thus a future only when it succeeds in implementing a flexibly oriented agriculture. For the future it is necessary to see an agricultural enterprise also as an enterprise of services which is capable of performing activities necessary for maintaining a healthy environment, for the development of tourism and travelling and/or for processing local raw materials, etc.

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