# COMMUTING TO AGRICULTURE IN THE DISTRICT OF UHERSKÉ HRADIŠTĚ

#### A. Věžník

Department of Geography, Faculty of Science, Masaryk University, Brno, Kotlářská 2, Czechoslovakia

Received for publication: January 1992

#### SUMMARY

The present study solves the fundamental geographical problems of commuting to agriculture in the district of Uherské Hradiště. The introductory part deals with the basic problems of concentration of agricultural production in CSFR, connected with the concentration of large territorial areas into one economic and organizational unit. The main part of the paper then represents the study of commuting to agriculture, to UACs in the district of Uherské Hradiště.

### 1. INTRODUCTION

One of the characteristic features of the development of the organization of Czechoslovak agriculture in the period after 1970 was a conspicuous concentration of production forces in agriculture by means of amalgamation of UACs, deepening of specialization and utilizing of coperation of agricultural production. Especially, after 1974 there was a rapid amalgamation of UACs, so that their total number was markedly reduced. In the former CSSR their number dropped from 12,560 in 1959 to 1,657 in 1988. The mean area of land of one UAC thus increased from 353 ha to 2.598 ha.

The concentration of agricultural production, connected with the concentration of large territorial areas into one economic and organizational unit brought about a number of changes also in personal lives of agricultural workers. The distances between their homes and workplaces increased. This circumstance put new claims on transport to and from work [3].

Commuting to work belongs to important aspects of the working people. In agriculture the number of workers commuting to work to another

community was small up the 1970s. But it due to concentration changes in agriculture it grew markedly, which until recently was an unusual phenomenon in agricultural production, everyday commuting to the workplace. B. Tichota [10] in the results of 1976 says that from the studied set of UACs  $60^{\circ}/_{0}$  of workers walked to work and back, and in further 33% the time expended to transport to work and back, including the waiting time for means of transport was less than 30 min., and the time spent by transport to work higher than 1 hour practically did not exist. But already in 1980 within the whole agriculture of the SSR 30.70 of workers commuted to work from their homes and in the UACs it was full 25.4% [1]. According to urbanistic concepts of the 1970s, one of the tools for abolishing the undesirable differences between the country and the town was the implementation of the principles of the central system of settlement. The centres of changes in country settlement should thus have gradually become centres of settlement of local importance and other development settlements. Other non-central settlements were from the viewpoint of urbanists — understood as relatively non-developmental, i. e. there the expansion of flats, public and technical utilities, social infrastructure, production forces etc. were not counted with. If in those so-called undevelopmental localities the possibility of building flats was limited, also the age, professional and demographical structures of the population changed in an adverse way. Those localities gradually became unattractive and uninteresting for young workers in agriculture and they kept leaving for settlements with better public utilities. Of course, from the point of view of agricultural primary production the importance of those communities has still been very important and the hinted trend of "depopulation" is undesirable, since production capacities in agricultural primary production, particularly in livestock production are spatially scattered. This spatial scattering of production capacities should, however, be reflected in the location of the housing fund. It is easy to understand that a worker in livestock production cannot live 20 km from his workplace. With respect to the character of work in livestock production it is also impossible. From what has been said it folows that gradually there arose a contradiction of urbanistic concepts of settlement and the concepts of concentration of agricultural production. The arising disproportions affected more and more commuting proper to agriculture, above all that of workers of crop and livestock production. On the other hand, however, sometimes, exaggerated concentration of agricultural enterprises and/or thoughtless location of the UAC centre outside the central community resulted in a rapid growth of commuting to agriculture in the category of technical and economic workers. A great upsurge of commuting to agriculture, when transferred to absolute values, means operation and maintenance of a great number of means of transport, considerable energetic inputs, excessive immission load of the agricultural landscape and a reckless waisting of time. It is a non-negligible spatial activity of man with all economic, ecological and social consequences following from it.

## 2. PROBLEMS OF STUDYING COMMUTING TO AGRICULTURE IN THE DISTRICT OF UHERSKE HRADISTE

In the district of Uherské Hradiště there was also a conspicuous concentration of UACs, their number being reduced from 80 in 1961 to 32 in 1975 and to 16 in 1979. The mean area of agricultural land per one UAC thus gradually increased from 517 ha to 2.609 ha in 1988. The main objective of this part of the paper was above all the study of commuting to agriculture on the example of UACs in the district of Uherské Hradiště.

All necessary data were obtained by poll and by extracting accessible materials from personne departments of the individual UACs in the course of inquiry carried out to 31 Dec., 1989. As persons commuting to agriculture were considered persons in the production age permanently employed at the cadaster of another community than that of their permanent address, even if they commuted to work from a territory outside the limits of the district of Uherské Hradiště. The persons commuting to agriculture did not include working pensioners, season workers, women on maternity leave, soldiers of actual military service and also workers in whom the community of work was the same as the community of their home, despite the fact that they used any means of transport for going to work.

In accordance with the organizational structure of the cooperatives the commuting workers were divided into five groups:

I.	section	crop production	CP
II.	section	livestock production	$_{ m LP}$
III.	section	mechanization	M
IV.	section	nonagricultural production	NP
V.	section	administration and management	Α

It is a division on the basic of interest in a section, not a professional structure (thus, section II includes veterinary surgeons, milkmaids, cowshed workers and watchmen of the respective farm).

With respect to the materials accessible only daily commuting was followed. Commuting for several days occurred rarely, in that case the temporary accommodation was considered to be permanent accommodation.

# 3. EVALUATION OF COMMUTING TO AGRICULTURE TO UACS IN THE DISTRICT OF UHERSKE HRADISTE

The individual UACs in the district of Uherské Hradiště differed very much both by the size of the area of operation and by the number of UAC members (see Table 1). In the first phase of evaluating the data obtained it seemed that the size of the UACs would have a marked effect on commuting to work, but, as it proved in the end, this idea was wrong and generally it cannot be said that the more permanent workers the UAC has, the greater is also commuting to work. The size of commuting to work is above all affected by the structure of the UAC, i. e. how purposefully the main centres are located on the territory of the UAC and also the fact how they are equipped for different types of agricultural production, i. e. how many and what working opportunities they yield.

For that reason, for commuting to work the relation the larger the centre, the larger also commuting to work does not hold completely. This rule is confirmed only in the case when the structure of the cooperative from the viewpoint of agricultural production corresponds completely to the settlement structure. If, however, the settlement structure was not respected in the formation of the cooperative, cases like that at Zlechov could happen, that in the village the centre of agricultural production was located, but its great importance does not correspond to the position of the seat in the settlement structure, and then commuting, irrespective of the size and public facilities increased rapidly. Evaluating commuting from the point of view of the whole cooperative it was necessary to include factors like specialized agricultural production, distance from important seats, size of individual communities, etc.

The size of commuting to agriculture varies considerably in the individual cooperatives (see Table 1), roughly between  $8.2^{0}/_{0}$  and  $63.4^{0}/_{0}$ . The lowest value,  $8.2^{0}/_{0}$  was reached in the UAC Nivnice, further  $9.8^{0}/_{0}$  in the UAC Vlčnov, both cooperatives being formed by one village each, so that most employees are local people and the cooperatives belong among small UACs. Relatively low values were also exhibited by the UAC Hluk  $(21.8^{0}/_{0})$ . A group of UACs where commuting to work varied within  $30-50^{0}/_{0}$  were the following ones: Bánov, Boršice, Kunovice, Nedachlebice, Polešovice and Uherský Brod. In the remaining cooperatives commuting was higher than  $50^{0}/_{0}$ , the highest (over  $60^{0}/_{0}$ ) was reached by the UACs Babice  $(61.2^{0}/_{0})$  and Dolní Němčí  $(63.4^{0}/_{0})$ . In the UACs Staré Město, Kunovice and also Uherský Brod and Havřice commuting to work was greatly affected by intraurban commuting within large settlement units of Uherské Hradiště and Uherský Brod.

The share of the individual profession groups in commuting depended not only on the specialization of the agricultural production of the cooperative, but also on the size of overall commuting. As far as commuting to work was small, considerable share in it was that of technical and economic workers (TEW) (see Table 1). Roughly the share of TEW in total commuting varied within  $15-30^{\circ}_{\cdot 0}$ . Only in UACs with small commuting this value was higher, UAC Vlčnov  $56.0^{\circ}_{\cdot 0}$ , Hluk  $32.3^{\circ}_{\cdot 0}$ , Nedachlebice  $32.2^{\circ}_{\cdot 0}$ . Workers in CP and LP had, but for exceptions, a lower share in commuting, roughly within  $0-20^{\circ}_{\cdot 0}$ , the higher values being those in LP (high capacity objects in LP). An exception is the UAC Kunovice which is markedly specialized in horticulture and vegetable production and where the commuting of CP workers was higher  $(24^{\circ}_{\cdot 0})$ . The highest share in commuting to work was that of the group of the other workers, M, NP and A. In most cases this group shared in commuting by  $40-80^{\circ}_{\cdot 0}$ . It is possible that this high share was due to the fact that this group included also drivers and tractor drivers who in the course of the year work alternately in CP and LP and also as other workers. Besides, this group also included the workers of associated production which was considerable in some UACs.

The absolute majority of workers commuting to the above cooperatives had their permanent residences in the district of Uherské Hradiště, only some cooperatives operating at the border of the district exhibited slight commuting from the neighbouring districts of Zlín, Hodonín and Trenčín.

Further, the intensity of commuting to agriculture in the district of Uherské Hradiště was determined, both for the individual communities and from the viewpoint of the whole UAC. Intensity of commuting to work in  $\frac{0}{0}$  = the number of workers commuting to work over the number of permanently resident economically active workers in the community. As this value is directly proportional to the number of commuting workers and inversely proportional to the number of economically active inhabitants of the community, it can be assumed that higher intensities of commuting to agriculture will be achieved in smaller communities, mainly those which are the principal centres of agricultural cooperatives. From the point of view of UACs the highest intensity of commuting was that of the UACs Babice and Bánov  $(13.8\%)_0$  and 13.1%respectively), followed by Dolní Němčí (12.1%), Havřice (11.4%) and Záhorovice (11.30/0). The lowest intensity of commuting was that of the UACs Nivnice  $(1.2^{0}/_{0})$ , Vlčnov  $(2.2^{0}/_{0})$ , but also Uherský Brod  $(1.8^{0}/_{0})$ , because the number of economically active inhabitants on the territory where the UAC develops its activities is high and commuting to agriculture minimal.

According to the production structure of the cooperative, the settlements structure and commuting to agriculture it was possible to differentiate the cooperatives of the district of Uherské Hradiště into two diametrically different groups.

1. UACs which survived the process of concentration as an agricultural enterprise including only seat, i. e. the structure of the cooperative corresponds to the settlement structure. In those cooperatives the phenomenon studied, i. e. commuting to work, can be denoted as weakly deve-

loped and accidental (relative values max.  $10^{0}/_{0}$ ). This group includes 2 UACs of the district, Nivnice and Vlčnov.

2. UACs whose economic area is constituted by several seats, only some of them having been chosen as "prospective" from the point of view of agricultural production and in which most of the activities and working opportunities for agricultural cooperative members of the given area of the UAC are concentrated. In that moment the interseat commuting within the UAC begins operating, often in the opposite direction, intensified by the disproportion between the number of working opportunities and the local sources of manpower. In those cooperatives it is possible to follow perceptible links of seats via the commuting streams and a strong polarization of commuting. The relative values exceed 40 %. The group includes 11 UACs of the district, Babice, Bánov, Bílovice, Boršice u Buchlovic, Dolní Němčí, Havřice, Kunovice, Staré Město, Uherský Brod, Záhorovice, Zlechov.

An intermediate degree with conspicuous specific features affecting the whole situation of commuting is constituted by the UACs Polešovice, Nedachlebice and Hluk. UAC Hluk includes only 2 seats, commuting to agriculture is lower  $(21.8^{\circ}/_{0})$  and is exhibited by only one seat. In the UACs Polešovice and Nedachlebice the lower value of commuting is a direct consequence of the effort at a more effective layout of the individual activities. Generally it is possible to say that the greater were the contradictions between the settlement structure and the structure of the cooperative (and as far as the greater part of agricultural production - e. g. livestock or associated production - was concentrated in small seats), the more workers commuted to agriculture. Most UACs tried to solve the problem of commuting to work by their own means of transport (see Table 1), but despite that, commuting to some branches of agricultural production was very tiresome and from the time viewpoint quite unjustifiable. It concerned above all livestock production and seasonal works in crop production. That is why the cooperatives intensely looked for workers with permanent dwellings in the place of the workplace those activities and often those posts were staffed by pensioners. In some places they tried to solve the problem by building flats on centres with extensive livestock production. But this solution was much more complex than could appear at first sight. In that case agricultural production often clashed with the validity of the concept of development of the settlement structure.

### 4. CONCLUSION

By establishing large economic areas a conflict between the distribution of free working opportunities and free manpower started developing. It appeared as if the respect of the decision makers to the character of the fundamental means of agricultural production — the land — were lost. This integration was joined by gross negligence of the structure and hierarchy of the countryside settlements created for many centuries. The areal organization of agricultural enterprises failed to harmonize with the centre system of settlement. Thus a great strain, if not chaos was produced in the gravitation structure of the countryside area, even if the original intention of the first instigators of similar interventions was the very opposite, i. e. to eliminate unnecessary grudge, but to preserve the fundamental motivation assumption of development.

By a duplicity — always in opposite directions — of the hierarchization of the countryside area a complicated and misjudged addition and subtraction of forces and links forming the actual structure of the countryside arose. The administrative viewpoint acted as an inhibitor of the principle of the natural selection between seats. The concentration of working opportunities did not correspond to the concentration of manpower. That should seemingly have to start the movement of the population for work within the individual economic units. But in consequence of the multiplication of the links of the countryside, inability of some UAC seats or settlements and the greatest concentration of working opportunities (these do very often not overlap) it was impossible to satisfy the interests and needs of the working people, and there was also a great and, often, useless shift of manpower, not only within the area of economic units, but also between them. Agriculture thus developed commuting between seats despite the administrative organization and, perhaps despite the transport network which, besides others, resulted in a constant growth of the costs of agricultural production. If we see the stability of the countryside area, whose dominant, but only one component agriculture is, in the balanced effect of the individual components, then it is possible to state on the basis of the above analysis that in the contryside there developed a great degree of instability due to the elimination or limitation of the effect of all components of the non-agricultural character. The territorial structure was very painfully affected by many subjective decisions of the farmers.

Man, left in the confusion thus arisen at the mercy of many contradictory forces, looked for the satisfaction of his needs in several places at the same time, thus losing the relation to the seat from which he started. On the other hand, a working man creating the value of his work in a "foreign seat" can be able to work well and intensely, but cannot direct his working effort harmonically to the character of that seat. This resulted in breaking the fundamental principles which had been forming the countryside area for ages and differentiated it from the town, in the same way as work in agriculture, due to its specific features, differed from work in the other fields of human activity.

### LITERATURE CITED

- 1. B u c h t a P. (1985. Zemědělská ekonomika. 31: 795 802.
- 2. Kohout B. (1987). Územní plánování a urbanismus. 4: 223 230.
- 3. Kruček Z. (1986). Zemědělská ekonomika. 32: 63 78.
- 4. Macka M. (1966). Zprávy vědecké činnosti 3. GGÚ ČSAV.
- 5. Malík Z. (1987). Územní plánování a urbanismus. 4: 200 209.
- 6. Poljak S. (1985). Územní plánování a urbanismus. 12: 215 220.
- 7. Řehák S. (1988). Sborník prací 19. GGÚ ČSAV: 83 96.
- 8. Slepička A. (1989). Přeměny venkova (venkov našeho věku). Svoboda. Praha.
- 9. Spišiak P. (1990). Geografický časopis. 42: 401 409.
- 10. Tichota B. (1979). Vývoj životní úrovně pracovníků v zemědělství, Horizont. Praha.
- 11. Věžník A. (1987). Sborník referátů k XVII. sjezdu ČSGS v Ostravě: 445 452.

#### Author's note:

The above contribution was a part of a broader investigation project which was practically concluded in November, 1989. Despite that, I think that it has not lost anything of its topical character. Before 31 Dec., 1991 only two cooperatives in the territory studies were split (Kunovice and Polešovice, each to two smaller units) and the onset of the private sector is so far not so extensive as would be expected.

All further changes in the areal organisation of the agriculture of the given territory are the subject of a further study by the author.

UAC — Unified Agricultural Cooperative, — Nowadays only Agricultural Cooperatives (it is a type know in the west as kolchosses not sovchosses).

Table 1. Selected indices of the studied agricultural enterprises

UAC	1	2	3	4	5	6
Babice	1860	308	189	61,2	CB1, SLLP	13.8
Bánov	3132	598	274	45.8	CB1, SLLP	13.1
Bílovice	2755	417	214	51.3	NE	6.2
Boršice	3418	616	237	38.5	CB2	4.7
Dolní Němčí	2415	418	265	63.4	CB2	12.1
Havřice	2874	453	268	59.2	NE	11.4
Hluk	2349	289	<b>6</b> 3	21.8	CB1	3.4
Kunovice	5971	1059	438	41.7	CB1	-
Nedachlebice	1431	154	59	38.3	NE	4.4
Nivnice	1860	233	19	8.2	NE	1.2
Polešovice	2786	354	130	36.7	NE	5.3
Staré Město	2185	443	254	57.3	CB1	6.6
Uherský Brod	2774	286	131	45.8	CB1	1.8
Vlčnov	1876	253	25	9.9	NE	2.2
Záhorovice	2223	354	198	55.9	CB1	11.3
Zlechov	1834	313	174	55.6	NE	8.1

<sup>1 —</sup> Area of agricultural land in ha on 31 Dec., 1989.

<sup>2 -</sup> Number of permanently active members of the UAC on 31 Dec., 1989.

<sup>3 —</sup> Overall number of commuting workers.

- 4 Share of commuting workers in the total number of economisally active workes (percentage).
- 5 Transport of workers provided by the enterprise:

  - NE nonexistent,
    CB cooperative bus + No. of lines,
  - SLLP special line for livestock production.
- 6 intensity of commuting to the UAC (percentage).

