LAND CONSOLIDATION AS AN INSTRUMENT FOR LAND OWNERSHIP DEFRAGMENTATION IN THE CZECH REPUBLIC AND SLOVAKIA

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ABSTRACT

The fragmentation of land ownership in Slovakia is high. It is a consequence of Hungarian property law. Fragmentation in the Czech Republic is not as high because pursuant to Austrian law. High fragmentation of land ownership is reflected in the amount of shares of a single owner in common property on the one hand and the way these shares are distributed on the other. Fragmentation in Slovakia is so high that the land cannot be used separately; the shapes and sizes of the plots are also inconvenient for practical usage. The average number of plots per owner in Slovakia is 20.59. The average number of co-owners per plot is 11.11 and the average number of ownerships is 97.95 million. Statistics related to the Czech Republic reveal that there is an average of 1.59 co-owners per plot and the number of ownerships is 10.15 million. In both countries, the situations have been dealt with by means of land consolidation (LC). Nowadays, it is considered the optimal and the only way of restoring the Cadastre of real estates in farming landscapes. LC not only supports ownership consolidation but it also helps to create a multifunctional system of landscape features with environmental, flood-control and erosion-control functions which also enables access to the separate plots. In the Czech Republic, LC has been (or is still being) implemented on 26% of the total acreage of the Agricultural Land Fund (ALF) and on 12% of Slovak territory. Field roads built in the CR are 1951 km longer and the extent of erosion-control and ecologic measure is 1916 ha higher. This paper addresses land consolidations in the Czech Republic and Slovakia in the past and today, explaining the differences in their historical development, comparing the different starting conditions for LC and the current state of planning and implementation in both countries. The intention of the authors of this paper is to point to the fact that land consolidation needs to be implemented in both countries.

Key words: land consolidation, ownership, fragmentation, rural development

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INTRODUCTION

Land consolidation (LC) is an effective tool that improves conditions for land owners' consequent management. It creates new consolidated plots with clear ownership rights and related easements. It provides conditions for the improvement of the environment, protection of land, water and water resources and conditions for the consolidation of landscape environmental stability which consequently improves the standard of living in rural areas. Land consolidation provides a tool for permanently sustainable rural development. Products of land consolidation will serve as a basis for the restoration of cadastral documentation. A digital cadastral map will be created, based on the actual situation in the field.

The paper addresses the land consolidation in the Czech Republic and Slovakia in the past and today. It aims to describe the differences in the historical development and their impact on today's situation of land ownership in both countries. It compares recent successful and unsuccessful planning and implementation of land consolidations in both countries. The authors of this paper would like to suggest that the problems described need to be addressed through land consolidation.

MATERIAL AND METHODS

We collected data about fragmentation of land ownership in both countries (source: ČUZK "Czech office for surveying, mapping and cadastre" and MPRV SR "Ministry of Agriculture and Rural Development of SK"), compared them and assessed the situations related to land consolidation in both countries. We compared numerical data on the status of land consolidation progress in both countries (source: SPÚ CR "State Land office Czech Republic" and MPRV SR) and evaluated their levels of success.

RESULT AND DISCUSSION

The second half of the 19th century brought about a landmark for the common history of the Slovak and Czech lands. The Emperor's Patent of 1848 abolished serfdom and corvée; and legal equality put an end to nobility's rights. Former serfs became owners of the land where they farmed. However, the ownership was connected with significant financial problems which led to indebtedness of peasants. As a result, it became quite common to divide a number of plots which could not be divided before the end of feudalism without nobility's approval (Štefanovič, M. 2004).

The differences between property law in Austria (it was traditionally the eldest son who inherited all property) and in Hungary (pursuant to which all siblings inherited property in equal shares) resulted in different levels of land ownership fragmentation in these countries (see Chart 1). The fragmentation was also affected by the building of railways, roads, regulations of rivers etc. Inheriting and dividing also changed the shapes of the plots: they tended to become narrower and rather elongated. Fragmentation was more intensive in Slovakia. Fragmentation of land ownership is characterized in particular by these features: one owner's plots are dispersed and disintegrated, their shapes are inconvenient, plots can be inaccessible and cadastral areas have irregular shapes.

Figure 1 shows an example of ownerships in Slovakia, reflecting a distinctive influence of Hungarian property law. The plots are of inconvenient shape (in some cases, their width is only 2 metres while length is up to 500 metres). Such plots can hardly be used practically and are usually inaccessible. Co-ownership with other owners whose present whereabouts are unknown prevents potential sales or pawning; renting is only possible with the approval of the absolute majority (based on the surface area).

Fragmentation of land ownership in Slovakia is markedly higher than in the Czech Republic (see Chart 1). Yet Figures 2 and 3 show plots that are impossible to use for farming separately.

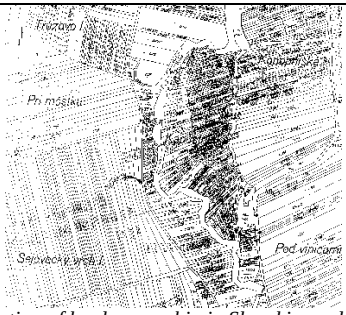

Fig. 1: Example of fragmentation of land ownership in Slovakia, cadastral area Koniarovce (map of the given cadastral operate)

Fig. 2: Example of fragmentation of land ownership in CR, cadastral area Katovice (Digital Cadastre map)

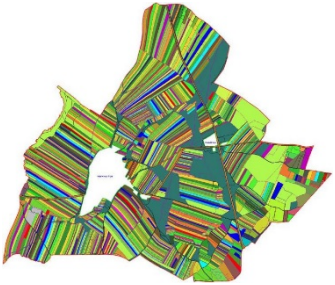

Fig. 3: Ownerships in cadastral area Markvartice – colours indicating individual ownership documents – situation before LC

Based on recent data (Urban a kol., 2012; ČUZK 2013), fragmentation of land ownership in Slovakia and the Czech Republic can be described as follows:

Chart 1: Comparison of ownership in SK and CR

Comparison of	**Slovakia**	**Czech Rep.**
Average number of co-owners per one plot	11.11	1.59
Number of ownerships	97.95 ml.	10.15 ml.
Number of plots	8.82 ml.	22.95 ml.
Average size of plot	0.56 ha	0.34 ha
Number of owners	4.18 ml.	6.69 ml.
Number of cadastral areas	3559	13026
Country area	49036 km^2	78870 km^2

The change of the political regime and the commencement of collectivization in the 1950s brought a new dimension of land reforms in the Czech and Slovak lands. The goal was to introduce socialist large-scale agriculture, i.e. to convert farm into cooperatives as soon as possible. This did not change the ownership of the plot – the ownership was preserved and continued to be inherited, but the owners were not entitled to perform their ownership rights. The cooperative was allowed to commence construction on the plot without the owner's approval, and it was the owner of everything grown on the plot. In the new arrangement by means of agricultural and technical land

reforms, all balks, borders and roads between fields were ploughed up and removed, resulting in conditions for large-scale cultivation. Figures 1 and 2 depict the state of cadastral maps, while the actual country has been dominated by large-area "socialist" agriculture. It is characterized by incongruity of records with the actual state, large-area blocks, inaccessible plots, inconvenient shapes and sizes, increased water and wind erosion, decreased environmental stability and diversity, disrupted landscape patterns etc.

The ownership documents in SK show a much larger number of co-owners than in the CR. The average number of plots per one owner in SK is 20.59. We can deduce (see Chart 1) that the plots in SK, which are on average 65% bigger than those in the CR, have approximately a tenfold number of ownerships. One plot in SK has approximately seven times the number of co-owners. The difference in the number of ownerships is multiplied with the opposite ratio of the country area.

After 1991 there were first attempts to remove historical deformations in the structure of land ownership. Since then, the efforts to carry out comprehensive land consolidation have emerged and both the Czech and Slovak approach to LC is based on similar intentions and legislations. In SK, it is *Act No. 330/1991 Coll.*, and in the CR it is *Act No. 139/2002 Coll.* There is also *Regulatory Decree No. 545/2002 Coll.* in the CR, with no analogical document in Slovakia. In terms of legislation, the initial conditions for land consolidation are similar for the two countries.

Land consolidation is currently carried out in 438 cadastral areas in Slovakia, i.e. 12% of them (considering the total of 3559 cadastral areas). The statistical summary of land consolidation entered in the Cadaster can be found in Chart 2 (source: MPRV SR). To date, there have been 197 projects entered in the Cadaster and 241 projects in progress in Slovakia (Chart 3).

In the CR, there were 2306 cases of comprehensive land consolidation (CLC) at the end of 2012. The CLC is not limited by the borders of a cadastral area, and urban areas are normally excluded from the solution, which is why the figures are related to the total acreage of the Agricultural Land Fund (ALF). The figure of 2306 represents 26% of the total acreage of the ALF. According to the document (SPÚ CR, 2013), 111 cases of CLC were completed in 2003 (i.e. 392 in total). The numbers of entered CLC projects are shown in Chart 2. The overall status of successful completion of LC is summarized in Chart 3.

Chart 2: Numbers of completed projects of land consolidations in years 2003-2012 in SK and CR

	Accruals in completed land consolidation projects entered in the Cadastre										
	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**Total**
SK	12	2	4	2	7	45	20	25	40	40	**197**
CR	111	95	90	86	128	121	122	151	148	146	**1484**

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Chart 3: Comparison of successfulness of land consolidation in SK and CR (31st Dec 2012)

Slovakia – status of land consolidation			**Czech Republic – status of CLC**		
completed	ongoing	% of total area	completed	ongoing	% of total ALF acreage
197	241	12	1484	822	26
438			2306		

The Czech Republic has completed more solutions to land consolidation and has gained more experience. If we compare the total area of the country covered with land consolidation, the CR is doubly successful. For this reason, the CR also has better results in the number of implementations (see Chart 4).

In 23 cadastral areas in Slovakia, implementation of public facilities and measures has been completed or is in progress. So far, 37 km of field roads have been built and there have been wind-

breaks placed in areas of 11944 m^2 and green corridors established in areas of 4512 m^2 (source: MPRV SR). On the other hand, the CR has completed many more public facilities (see Chart 4).

Chart 4: Comparison: implementation of public facilities in SK and CR (towards 31st Dec 2012)

Slovakia				Czech Republic			
Field roads [km]	Erosion-control measures [ha]	Environ. measures [ha]	Water mng. measures [ha]	Field roads [km]	Erosion-control measures [ha]	Environ. measures [ha]	Water mng. measures [ha]
37	1,2	0,45	---	1988	627,48	1290,33	359,43

CONCLUSIONS

Land consolidation is an important tool of rational and functional organization of agricultural and forest land in accordance with requirements of environmental protection. This definition is respected by legislation in both countries. The process of land consolidation is provided within a legal framework both in SK and CR. Besides respective Acts, the CR also has Regulatory Decree No. 545/2002 Coll. Land consolidation is considered the optimal and the only way of restoring the Cadastre of real estates in farming landscapes. LC not only supports ownership consolidation but it also helps to create a multifunctional system of landscape features with environmental, flood-control and erosion-control functions which also enables access to the separate plots. In this paper, we have highlighted the differences in the historical development and compared the situation of land fragmentation in both countries. The analysis shows that in Slovakia, there are 4.18 ml. owners, 97.95 ml. ownerships and 8.82 ml. plots, while in the CR there are 6.69 ml. owners, 10.15 ml. ownerships and 22.95 ml. plots. The plots in SK, which are on average 65% bigger than those in the CR, have approximately a tenfold number of ownerships. One plot in SK has approximately seven times the number of co-owners. The unfavourable situation in both countries can be effectively dealt with by land consolidation. LC is in progress and has been partly completed in 26% of the total acreage of the ALF in the CR, and in 12% of the Slovak territory. The CR has built 1951 km more field roads and implemented erosion-control and environmental measures in areas 1916 ha bigger than Slovakia. The CR has also implemented 359 ha of water management measures. These results allow us to conclude that the CR has not been affected by such a high level of fragmentation which may have contributed to its bigger success in implementing land consolidation.

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