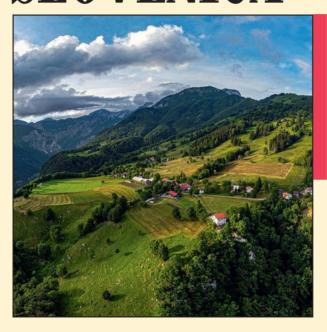
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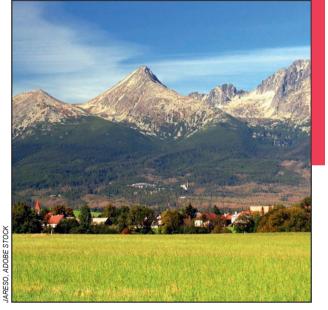
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Front cover photography: Common lands, like the pastures around Čadrg, reflect socio-economic change in the landscape. Their conservation and successful management are crucial for preserving local culture and biodiversity and supporting sustainable development (photograph: Jure Tičar).

Fotografija na naslovnici: Skupna zemljišča, kot so pašniki v okolici Čadrga, so odsev družbeno-gospodarskih sprememb v pokrajini. Njihovo vzdrževanje in uspešno upravljanje sta nujni za ohranjanje lokalne kulture ter biotske raznovrstnosti in zagotavljanje trajnostnega razvoja (fotografija: Jure Tičar).

COMMON LANDS AS A SYSTEM OF JOINT MANAGEMENT TO CONTRIBUTE TO COMMUNITY RESILIENCE? CASE FROM SLOVAKIA

Lucia Palšová, Zina Machničová



Landscape in Slovakia.

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Lucia Palšová¹, Zina Machničová¹

Common lands as a system of joint management to contribute to community resilience? Case from Slovakia

ABSTRACT: The traditional form of land management in Slovakia was represented by common lands and regulated by the legal form of *urbariates* or composite *sorates*, later reintroduced in the form of land associations. The aim of the article is to evaluate the transformation processes of the common lands and identify its contribution to community resilience against land conflicts by interviews realized among selected land associations. The results of the research point to the lack of motivation of owners of land associations to efficiently and sustainably use common land, which mostly becomes objects of rent with the view of quick profit. At the conclusion, we propose a set of measures that we recommend the state to apply in order to unify and streamline the activities of land associations in Slovakia.

KEY WORDS: common lands, collective actions, land associations, landscape resilience, Slovakia

Skupna zemljišča kot sistem skupnega upravljanja, ki prispeva k večji odpornosti skupnosti? Primer iz Slovaške

POVZETEK: Nekdanja oblika vzdrževanja zemljišč na Slovaškem so bila skupna zemljišča, ki so jih upravljala združenja lastnikov gozdov in pašnikov ter združenja lastnikov gozdov, pašnikov, podjetij in drugih posesti. Ti načini upravljanja so bili pozneje ponovno uvedeni v obliki zemljiških združenj. Avtorici v članku na podlagi intervjujev s predstavniki izbranih zemljiških združenj proučujeta procese preobrazbe skupnih zemljišč in njihovo vlogo pri krepitvi odpornosti skupnosti proti sporom glede zemljišč. Izsledki njune raziskave kažejo, da lastniki zemljiških združenj nimajo motivacije za učinkovito in trajnostno uporabo skupnih zemljišč, ki jih v želji po hitrem zaslužku večinoma oddajajo v najem. Avtorici na koncu predlagata niz ukrepov, ki bi jih morala uvesti država, da bi poenotila in izboljšala aktivnosti zemljiških združenj na Slovaškem.

KLJUČNE BESEDE: skupna zemljišča, skupni ukrepi, zemljiška združenja, odpornost pokrajin, Slovaška

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¹ Slovak University of Agriculture in Nitra, Nitra, Slovakia lucia.palsova@gmail.com (https://orcid.org/0000-0002-2130-4324), zina.machnicova@gmail.com (https://orcid.org/0000-0002-1392-1840)

1 Introduction

According to the International Association for the Study of the Commons (https://iasc-commons.org) the general definition of common land is a system of land ownership, known also as the common field system, in which land is owned collectively by a number of persons, or by one person with others holding certain traditional rights, such as to allow their livestock to graze upon it, collect firewood, or cut turf for fuel. All common land is private property, whether the owner is an individual or a corporation (Neeson 1993). The system of joint management is widely known in several European countries, in particular in Ireland (Fabra-Crespo and Rojas-Briales 2015), Italy (Povellato and Vanni 2017), Slovenia (Šmid Hribar et. al. 2018), etc., but modifications resulting from historical, political, and geographical conditions can be found in each country. In some (mostly post-socialistic) countries, the common method of land management as well as co-governance has disappeared based on the land reforms leading to socialism and during the transformation process after the socialistic political regime, while in several Alpine countries with more difficult geographical conditions, it has been preserved (Hogenová 2019).

As for the countries of the European continent, in countries such as the Czech Republic, Croatia, the Netherlands, Portugal, and the United Kingdom, common lands are not regulated by legislation (Hogenová 2019), on the contrary, in Sweden, Lithuania, Slovenia, Austria, Poland, and Romania only partially and in Latvia, common lands are regulated through the introduction of a legal institute of land associations (Parker and Cowan 1994; Fabra-Crespo and Rojas-Briales 2015). Some differences in the legislation of the land associations have been found in several countries, but the system of joint management works there to some extent. For example, land associations in Greece are represented only by cooperatives, while in Slovakia, these are special forms of agricultural enterprises. In Finland there are jointly owned forests, in Estonia there are no land associations as such, but the economic interests of individuals are represented through joint economic activity within established trade associations (Povellato and Vanni 2017). In Hungary, there is jointly owned agricultural and forest land, but no land associations in general, despite the common laws in force in Austria-Hungary (Hogenová 2019).

The advantages of common lands can be classified in several aspects in terms of functions and features that characterize them. The primary meaning and reason for establishing common lands was above all the protection of land and solving its fragmentation, contributing to the regional and rural development. As settled land problems can increase ties of owners to the land, ultimately it may lead to the more efficient cultivation of individual plots of land and the use of the given environment. Through common lands, there may be an increased ability of society in the given territory to more effectively use natural resources, such as transport food, energy, etc., which makes it more resistant to certain disasters as for example food, energy crisis, etc. (Magis 2010; Berkes and Ross 2013; Sharifi 2016).

The meaning of common lands should also partly consist in increasing or maintaining the so-called community resilience, according to Berkes and Ross (2013) mostly represented by people-place connections, values and beliefs, knowledge and learning, social networks, collaborative governance, economic diversification, infrastructure, leadership, and outlook..Many researchers (Aitchison 1990; Wilson and Wilson 1997; Short 2000; Short and Winter 2010) also point to the fact that non-functionality or improper coordination of common lands by public authorities may lead to several negative impacts. The functions of common lands in terms of the three relevant aspects and their possible impacts are presented in Table 1.

Land associations represent traditional legal forms of joint management and use of agricultural and forest land in Slovakia. *Urbariates* as a joint ownership of forests and pastures, composite *sorates* as a joint ownership not only forests and pastures, but enterprises or other properties, and similar legal institutes, for example cooperatives with joint ownership (currently called land associations) have a deep historical background, their origins dating back to the Middle Ages (Maslák and Jakubáč 2019).

Originally common land management as a form of co-ownership arose from the incitement of nobles in the 18th century due to rational management of agricultural and forest land. The legal form has been modified several times, which was related to the need to transform feudal relations, especially in the 19th century. The common denominator until the beginning of socialism in 1948 was the joint management of indivisible property of difficult to process and fragmented lands of several owners.

From a formal point of view, these forms were, as a rule, entered in the land register as a single plot of land with a list of individual owners and the size of their shares (Pauličková and Štefanovič 2004), and the dedication of the real plot of land could not be requested by the co-owner (Konôpka 2010).

The transformed form of co-ownership to the common lands persisted during the break-up of feudal relations in the 19th century and remained in content until 1958. By this time, according to Act No. 2/1958 Coll. on the Adjustment of ratios and management of Common lands (forests) of former *urbariates*, composite *sorates* and similar formations, about 2,504 land associations were abolished, of which approximately 400 were still fulfilling their functions at that time, while the others carried out practically no or minimal activity.

In the period of socialism, due to the legal regime, it was not possible to maintain the continuity of the joint management of its owners, as all legal forms of land associations were abolished *ex lege* and their immovable and movable property was aggregated for the purpose of industrial management by socialist cooperatives (Bandlerová et al. 2017).

After the fall of socialism in 1989, the state had to restructure the entire system of land ownership. The socioeconomic changes required new revision of legal land ownership and land use. Owners were given equal legal protection and equal restrictions based on constitutional and legal regulations. State authorities introduced the so called "Privatization of land" – as a result of which jointly owned land was confiscated into the ownership of the state or individuals (compulsory collective land use was cancelled) and the process of "individualization of farming" - transition to individual cultivation (as opposed to collective) (Lerman 2001).

The restitution process involved the return of land to original owners, including those belonging to land associations with joint ownership. As Wehrmann (2017) states, weak governance leads to weak tenure systems and contributes to poor land and resource management practices. At the same time, the legacy of the socialist system deprived landowners a set of particular values, personal identity, and emotional bonds (Van Dijk 2007), which, however, resulted in lack of will and readiness of the owners to acquire renewed land ownership. These threats were reflected to a lesser and greater extent in the conditions of Slovakia, including land associations, that lost interest and motivation in joint land management.

As the current land associations are the result of intensive transformation processes from the past, most researches in Slovakia (Pauličková and Štefanovič 2004; Konôpka 2010; Tóthová 2012; Bandlerová et al. 2017; Moľová 2017; Hogenová 2019; Maslák and Jakubáč 2019) are limited to the analysis of the forms and legal regulation of land associations, but until now there has been an absence of scientific studies that would investigate the importance of land associations in relation to current socio-economic needs, their impact in society or community and their importance in relation to the climate change.

For this reason, the aim of this paper is to evaluate the transformation of legal forms of land associations and to identify their functions in the aspect of their contribution to community resilience in Slovakia based on the principles and models of foreign studies (e.g., Wilson and Wilson 1997; Short 2000; Short

Table 1: Overview of functions of common lands and their possible impacts (Aitchison 1990; Wilson and Wilson 1997; Short 2000; Short and Winter 2010).

Functions of common lands	Positive	Negative
Economic	financial source of income	effort to maximize profit at the expense of sustainability
	lower costs redistributed between owners	demanding access to subsidies, grants
	possibility to receive subsidies, grants	-
	joint land management and cultivation	
	a significant share of the economy of the country	_
Social	simple transfer of ownership to another member	legislatively incomplete concept
	simple access to data	possible conflicts between co-owners
	preserving the traditional form of joint land management	a large share of co-owners of one property
	community resilience	lower interest in joint management of land
		insufficient public government in the area of common lands
Environmental	reduction of land fragmentation	using harmful pesticides to maximize profit
	protection of agricultural and forest land	_
	unified ecological land management	-

and Winter 2010; Wehrmann 2017). In our research, we focused on assessing the transformation of basic aspects of land associations in the context of their contribution to the community resilience:

- 1. Legal in order to introduce the situation that led to the current status of land associations in Slovakia.
- 2. Economic in order to evaluate the economic benefits of joint management of land associations.
- 3. Social with a focus on decision-making in the land community and their relevance to the public.

2 Methods and research area

According to the Geodesy, Cartography and Cadastre Authority of the Slovak Republic (ÚGKK), there are 3,559 cadastral areas in 2,927 municipalities without the urban parts of Bratislava (17) and Košice (22). The Land Associations Register managed by the National Forestry Centre in Zvolen (https://gis.nlcsk.org) registers 2,922 active land associations, each municipality having as a rule only up to one land association. Since 99% of Slovakia's municipalities have a land association (Bandlerová et al. 2017), our research is based on the fact that land associations must have, or had in the past the particular importance to its members and to the general public.

Basic information on land associations was obtained through analysis of the Land Associations Register, which is government tool for data collection.

The primary source of the research consisted of structured interviews with 786 (out of a total of 2,922) randomly selected chairs and/or land community staff. In total, the interview consisted of 10 open-ended questions regarding basic information about the land association, the type of activity that association realizes, the size of the land association, its economic, social and environmental functions and future direction. We contacted every fourth association registered in the Land Associations Register, while the interviews were conducted by telephone in the form of a discussion in the period April–August 2022. In the first round, we received answers from 374 subjects, in the second from 318 subjects, and in the last round, we received answers from 94 representatives of land associations. In total, we received responses from 786 land associations from 98 municipalities in Slovakia, which represents a 27% from the total number of land associations registered in Slovakia.

In parallel, the employees of the Ministry of Agriculture and Rural Development in Slovakia and the Ministry of the Environment in Slovakia were interviewed in order to achieve information about the current status of land associations in Slovakia and their functions. The interviews consisted of similar questions as in the case of interviews realized with the representatives of the land associations, but we focused more on the functions, the importance, and effects that land associations represent for the society, the sustainability of Slovakia, and climate change itself.

Secondary sources of research were mainly the relevant legal acts regulating the land associations, where we carried out an analysis of the time series of developments and changes in the legal regulation of land associations in Slovakia between 1948 and 2022. Another source represented scientific publications of researchers in the field in Slovakia and abroad.

From a methodological point of view, the paper is drawn up through qualitative research, as we used methods such as an in-depth analytical approach in the field of theoretical questions and structured interviews formulated into scientific assumptions, which we subsequently supported by analysing empirical data.

3 Results and discussion

Slovakia can be characterized as a predominantly rural country, and agriculture remains important in terms of its productive and non-productive functions. According to the data provided by UGKK in 2021 of the total land area of Slovakia, 4,903,405 ha, 2,375,025 ha (48.43%) constitute agricultural land and 2,027,852 ha (41.36%) constitute forest land. The agricultural land is dominated by arable land of an area of 1,405,263 ha (59.17%) and agricultural land of an area of 850,027 ha (35.17%).

From ownership point of view, 77.54% of all land is owned by private subjects (both individuals and legal entities) and 22.46% of all agricultural land is under state control (5.69% is owned by state and 16.77% is under the management of State land fund as a land of unknown owners (Slovak Land Fund 2019)).

Land associations as a legal form were introduced into Slovak law by Act No. 181/1995 Coll. on Land associations, which restored all previous legal forms regulating the management of common land as well as those created under this Act. The legal concept of indivisibility of joint ownership of joint property was reintroduced and the impossibility of co-ownership of joint property was regulated and disposed of in accordance with the provisions of civil law (Section 4(1) of the Act). According to data from composite *sorate* of Vrútky – (slk. *Vrútocký komposesorát*), already at the time of submission of the draft law, approximately 1,700 land associations were renewed in Slovakia according to the restitution regulations, to which land was issued in an area of 427,748 ha of land (8.72% of total country area), of which agricultural land accounted for 132,601 ha (approximately 15% of total agricultural land area) and forest land 295,146 ha (approximately 14% of total forest land).

3.1 Legal transformation of land associations in Slovakia

Despite the success of the land-reform process in Slovakia, at the time there was no relevant prediction of the legal consequences of the restored ownership of land, which the state is still unable to deal with and are mainly:

- 1. Extreme land fragmentation as key problem with harmful implications for land-use planning, land management, for private and public investments, sustainable economic growth and social development (Hudecová et. al. 2018). Ministry of Agriculture and Rural Development in Slovakia (https://www.mpsr.sk/) identified in 2019: 8.4 million of ownership parcels; 4.4 million of owners; 100.7 million of co-ownership relations and 11.93 average numbers of owners in 1 parcel.
- 2. Land-use concentration owners did not have the opportunities, i.e., lost interest in managing their own land, and therefore, almost 90% of all agricultural land is leased. This cased that although the users from the socialistic period have changed their legal form and often their ownership structure, they have retained a more or less unchanged tenancy structure and a decisive influence over the integrated use of land.

The land associations also suffered from the deficiencies mentioned above. The existence of a common land and its indivisibility initially protected its integrity; over time, its low flexibility became the reason for the need to amend the legislation. In 2007 and 2011 a draft new law on land associations was prepared, but it did not pass the legislative process due to its incompleteness (Tóthová 2012; Bandlerová et al. 2017). At that time, the legislators were unable to solve the issue of changing and streamlining the disposal of shared property. They sought to facilitate the division of the common land, which, however, encountered resistance from the land associations, which considered it to be contrary to the fundamental principles and attributes of this legal form.

Finally, Act No 97/2013 Coll. on Land associations as amended was adopted and is still in force. The law explicitly defines land associations as legal persons, namely:

- »forest and pasture community of owners of common property subject to special regulations defined by legislation until 1948 and established under special regulations;
- forest community, pasture community or land community established under special regulations entered in force during the transition period - Act No. 229/1991 Coll. on the adjustment of own relations to land and other agricultural property as amended;
- · community of common land owners;
- community established directly by owners of jointly managed property; a jointly managed property is
 an agricultural land or forest land the owner of which, together with other owners of such land, establishes a community for the purpose of their joint management and use«.

The most fundamental interference with the current law is the elimination of the principle of indivisibility of common land, leaving the principle of the impossibility of cancellation and settlement of its co-ownership with the exception of the procedure defined in the case of land consolidation. The long-term trend in the ownership of common land shows that due to inheritance processes the number of co-owners is steadily increasing, while at the same time the number of co-owners willing to actively participate in activities of land associations and to stand as candidates for their elected bodies is decreasing. The second serious interference is the introduction of the possibility for the community to acquire ownership of shares in a common land (which was prohibited by the law in force), but only up to a limit of 49% of the share for one owner due to the limitation of concentration of ownership. Another note introduced by the new law was in the form of updating decision-making processes and clarifying the relations of the com-

munity with the Slovak Land Fund and with the Lesy Slovensko, s.e. (Ministry of Agriculture ... 2012). The legislation seeks to define the internal relations of individual members and society, but it does not reflect the current – broader social significance of land associations.

Quite exceptionally, there are mainly commentaries on the legislation of land associations (e.g., Maslák and Jakubáč 2019). Commentaries interpret individual provisions of the law without a broader scientific and research basis. There has not been research from qualitative or quantitative perspective in Slovakia so far, and therefore this paper also had the ambition to contribute to the whole society's debate and the emergence of scientific research revival legal form of land associations.

It can be considered a negative, that the law does not define in any way the key attribute of land associations, which is joint management and the common rights and obligations of its members. The law represents a formalistic approach to common lands and does not offer a progressive view of the legal form.

3.2 Economic aspects

Currently, 2,922 active land associations are registered by the Land Associations Register. About 60% of them were established in 1995 and the rest of active land associations was established by 2011. However, the exact establishment of the land associations cannot be explicitly determined in the paper because due to a new legal regulation, land associations had to be re-registered in 2019 and for this reason it is not possible to find out all the necessary data about their establishment from the official register. Nevertheless, according to National Forestry Centre in Zvolen since 2011, only a negligible number of new land associations (< 1%) have been created, mainly due to inefficiency of activities and weak regulatory flexibility of the existing ones.

In terms of ownership structure, there is a high degree of ownership fragmentation. The number of co-owners of a land associations ranges from 60 to 2,000, while the shares of the co-owners in some cases represent a fraction with a five-digit denominator (Ministry of Agriculture ... 2012). The co-owners of the land associations usually come from the village or its surroundings. Despite the high degree of ownership fragmentation, the legal institute of the indivisibility of joint property guarantees its land integrity, which facilitates its efficient management.

The research carried out showed that 96% of surveyed land associations managed both agricultural land and forest land. Only 4% were those that managed exclusively agricultural land. According to the data provided by ÚGKK in 2021 this proportion corresponds to approximately the national average. This is due to the fact that these agricultural plots are located in close proximity to the forest. The type of land also determines the management of the common land and the economic benefits accruing to its members. The management of the common land is defined by law mainly as the possibility of carrying out business activities. Within the meaning of Section 19(1) of the Land Associations Act, *the land association carries out, for the purposes of enterprising on common land or on jointly managed property, their joint use and procurement of common land resulting from ownership of them as follows:

- a) it carries out primary agricultural production and the related processing or transformation of agricultural products;
- b) it operates in forests and water areas.«

At the same time, the land community is also authorised to carry out other business activities under the Act No. 455/1991 Coll. on Trade entrepreneurship as amended.

Despite the diverse possibilities of doing business, all the land associations concerned exclusively rent agricultural land, namely to the agricultural entity which manages the land where the land association is located, on the basis of a lease agreement in accordance with the Act No. 504/2003 Coll. on the lease of agricultural land, agricultural enterprise and forest land and on the amendment of certain laws as amended. The rent for individual co-owners ranges from $\[mathebox{} \in \]$ 30- $\[mathebox{} \in \]$ 200 per ha and depends on the specific region of Slovakia. As a result, the land associations have no or minimal impact on land management and crop species production.

By contrast, as regards forest land, they are managed by land associations on their own account within the meaning of Act No. 326/2005 Coll. on Forests as amended. In forests on the basis of private-law contracts, they provide management under this Act, the forest management programme or extract thereof or the forest land management project through a forest manager. The economic benefit for the land community and its co-owners consists of generating a financial profit from the sale of timber felling or from the possibility of profit in kind in the form of harvesting of timber for their own purposes.

Land associations do not carry out any additional business activities or other activities generating additional income. As the research has shown, the regular business of land associations is mainly limited by:

- the lack of interest of co-owners and age composition as well as the large fragmentation of the shares;
- the absence of mechanisms for obtaining funds for joint management;
- the absence of employment mechanisms and legal regulation of land associations relations with state administration or municipal bodies. This is reflected in calamities (overgrowth of pests, other extraordinary incidents), in which there is no way to ensure quick action or reaction to the situation.

On the basis of the above, it can be concluded that land associations do not fulfill the traditional character of sustainable land management and mentioned economic functions (Table 1) as a purpose of joint management. In the case of land associations in Slovakia, it is exclusively a joint decision on who will manage the common land. The only motivation is to earn as much profit as possible. It has been shown that there is no incentive for co-owners to innovate business activities.

Since these are traditional legal forms of management, the existence of an approach to state support has also been examined. The employees of the Ministry of Agriculture and Rural Development of the Slovak Republic as well as the Ministry of the Environment confirmed that there is no specific support for these legal forms and that these are not considered by the Ministry of Agriculture and Rural Development in the future. Land associations may be eligible applicants for EU funds for areas of forestry, however, under the condition that the applicant must cultivate the land at the same time. Since agricultural land is mostly the subject of a lease, direct payments are generally not received by land associations. The most common reasons why land associations do not receive project support from EU funds include:

- forest management is ensured through outsourced services, and therefore there is no interest by land associations to invest financial resources in tangible assets;
- land associations do not generate enough profit to be able to co-finance projects and pay expenses related to project management;
- co-owners are not interested in investment activities of land associations.
 This has a negative impact on motivating the sustainability of land associations for the future.

3.3 Social aspects

In the past, land associations performed several social functions for their members such as social responsibility, participative approach in the local development and their importance in society and the region (Bandlerová et al. 2017), which is evidenced mainly by the historical records of several land associations (*urbariates*, composite *sorates*).

However, it emerged from the questionnaire survey that social functions of land associations in Slovakia are currently gradually disappearing. Co-owners are mainly individuals who, on the basis of renewed ownership after the period of socialism, gained access to claim their ownership rights and obligations. These are either the original owners or the heirs, who, as a result of the revocation of property rights during the socialist period, lost their relationship to the land. On the other hand, it appears as a social potential that these co-owners come from the respective region or have ties to this region. Accompanying by suitable motivational, financial or other implemented tools, this may be used as a support of land associations and their potential for the community resilience.

However, the interviewed land associations confirmed the extremely low interest and willingness of co-owners to claim their ownership rights, with the exception of deciding on necessary procedural actions (redistribution of profit, approval of the lease agreement, etc.). As far as decision-making is concerned, in accordance with §9 paragraph 4 of the Act, is the ratio of co-owners' participation in the exercise of rights and obligations resulting from membership in the land associations, expressed by shares in the joint real estate. The co-owners meet at least once a year and make decisions by a majority of the votes of all members of the community, which with large numbers of co-owners can cause difficulty in decision-making processes (e.g., inability to find a compromise).

Based on this information, the low social responsibility and weak awareness of the importance of land associations for co-owners and for the residents of the region can be deduced. Unless state tools for the active support of the participation of its members are not set, the social functions and the associated purpose of the land associations will completely lose their meaning.

4 Conclusion

Land associations, as a legal form in Slovakia, represent the successors of traditional forms of land associations such as *urbariates* and composite *sorates*. Already at that time, these forms represented a way how to unite and manage a relatively high number of parcels with fragmented and individually inefficient ownership as easily as possible (Molová 2017). The formalistic approach in flipping individual legal forms and institutes from before the period of socialism to the period after 1989 contributed to confusion and the lack of transparency of the legal form in the area of land associations, and in case of land ownership it deepened the conflict in access to land.

Today, the land associations operate in 99% of municipalities. The Act No. 93/2013 Coll. on Land associations as amended is the current legal regulation.

The common denominator of land associations is the management of common land and its indivisibility. The legal analysis revealed the necessity of defining joint management and defining the exercise of rights and obligations of members of land associations, because it is not possible to derive the degree of personal participation in the management of the community from the legal regulation. This shortcoming together with the low willingness and lack of awareness about the importance of the land associations imply weak participation in activities of the land associations. It is limited exclusively to procedural actions connected to the decisions about the management of the common land and about the organizational securement of the community.

On the other hand, the land associations as entrepreneurs have the potential to develop their economic and environmental activities. The advantage is that the joint property maintains its territorial unity even in the current conditions of extreme fragmentation of land ownership.

Because of that, it can be stated that the land associations show signs of an anachronistic legal form, which, however, has a high potential for ensuring activities of public interest for its members, or for the community resilience.

In this respect, state intervention in the following forms is necessary:

- creation of a functional Land Associations Register, including regular publishing of summary information about the land associations;
- introduction of economic instruments: subsidies (direct, project) to support infrastructure, and raising awareness about the importance of land associations for the region and community resilience;
- clarification of the legal regulation regarding the land associations, rights and obligations of its members. A major problem in research in the field of land associations in Slovakia is the lack of any sources of information. As far as online Land Community Register is concerned, telephone and e-mail contacts listed on the website are not working, which makes any research in this field very difficult to realize. The only information that can be obtained is the list of land associations and their members, which must be searched individually.

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