

# VREDNOSTNI OKVIR ZA OCENO ZEMLJIŠKIH BANK/SKLADOV

## VALUE FRAMEWORK FOR EVALUATION OF LAND BANKS/FUNDS

Stevan Marošan, Dragana Milićević, Vladan Đokić, Mladen Šoškić

UDK: 332.624  
Klasifikacija prispevka po COBISS.SI: 1.02  
Prispelo: 3.12.2013  
Sprejeto: 6.5.2014

DOI: 10.15292/geodetski-vestnik.2014.03.568-577  
REVIEW ARTICLE  
Received: 3.12.2013  
Accepted: 6.5.2014

### IZVLEČEK

Zemljiške bank/skladi so eden najpomembnejših instrumentov na področju razvoja podeželja. Njihov pomen pri urejanju zemljišč so med prvimi spoznali na Nizozemskem in Danskem, kjer so bile zemljiške banke oblikovane v sredini 19. in začetku 20. stoletja. Do konca 20. stoletja so zemljiške bank/skladi obstajale že v večini evropskih držav, njihov namen pa je bil olajšati urejanje in upravljanje zemljišč. V delu so na kratko predstavljeni: modeli, organizacija, upravljanje in financiranje zemljiških bank/skladov v Evropi. Poudarek je na opredelitvi vrednostnega okvirja za oceno zemljiških bank/skladov. Vrednostni okvir mora olajšati revizijo obstoječih (za izboljšanje njihovega delovanja) in oblikovanje novih zemljiških bank.

### ABSTRACT

Land banks/funds are one of the most important instruments of rural development. The significance of the land banks/funds in land development was primarily recognized in the Netherlands and Denmark, where land banks had been established in mid-nineteenth and at the beginning of the twentieth century already. By the end of the twentieth century land banks/funds have been formed in the majority of the European countries with the objective to allow for easier land development and management. This paper provides a brief review of: models, organization, management and financing of land banks/funds in Europe. This paper focuses on defining the value framework for evaluation of land banks/funds. The value framework should facilitate the revision of land banks (i.e. promote their operation) as well as to facilitate establishment of the new ones.

### KLJUČNE BESEDE

zemljiške banke/skladi, komasacija zemljišča, vrednostni okvir

### KEY WORDS

land bank/fund, land consolidation, value framework

## 1 INTRODUCTION

Land banks/funds have for long represented an important and irreplaceable instrument for enlarging the agricultural holdings. In mid-twentieth century the land banks/funds were formed to facilitate implementation of the land consolidation project. Today the land banks/funds are not only used to implement the land consolidation projects but have much broader use. The first international gathering, “International Workshop on Land Banking/Land Funds as an Instrument for Improved Land Management in CEEC and CIS“, organized by the United Nations Food and Agricultural Organization- FAO and the Ministry of Agriculture of Denmark in Tonder in Denmark in 2004, attracted a large number of the international experts and set the guidelines for a broader use of land banks in rural development projects. The best definition of land bank/funds was made by Jack Damen at the Workshop in Tonder in 2004: “*Land banking is the structural acquisition and temporary management of land in rural areas by an impartial State agency, with the purpose to redistribute and/or lease out this land with a view to improve the agricultural structure and/or to re-locate the land for other purposes with a general public interest*” (Damen, 2004).

At the international gatherings which were thereafter organized by FAO – Regional Office for Europe and Central Asia in Prague in 2008 (“Land Banks and Impact Assessment“), Santiago de Compostela 2009 (“Land Development Instruments and Information Tools to Assist Land Structure Reforms: the Galician Experience“), Prague in 2010 (“Land Banking and Public Land Management“), Budapest 2010 (“International Workshop on Land Consolidation and Land Banking“) and Budapest in 2012 (“International Workshop on Land Markets and Land Consolidation“) different models were analyzed and major objectives of land banks/funds were identified.

## 2 EUROPEAN EXPERIENCES –BASIC CHARACTERISTICS OF LAND BANKS/FUNDS

### 2.1 Objectives

The basic objective of land banks/funds is to promote agricultural land market, namely to increase its mobility in order to balance the supply and demand and more easily reach the *new situation* which is adjusted much better to the requirements of the sustainable development compared to the *old situation*. This *new situation* can be defined as development policy on regional and local levels formalized in spatial planning. That means that by using land banks/funds the multifunctional objectives can be met, such as:

- Support to land consolidation,
- Support to land market and its regulation,
- Support to land management,
- Support to fight against abandoned land,
- Support to implementation of rural and urban development and infrastructure projects (Marošan, 2013).

At the beginning land banks/funds were formed to facilitate implementation of land consolidation projects - consolidation and enlargement of the agricultural holdings. To date this has also remained the primary objective of each and every land bank/fund in Europe. Denmark is a country with the largest experience in implementing the land consolidation projects, and thereby also in the area of land banks/funds' functioning. It can be stated that the objectives which a land bank in Denmark should meet

have significantly been broadened- from the land consolidation projects to include the rural and urban development projects, in order to achieve greater land mobility (Figure 1) (Blaabjerg, 2004).

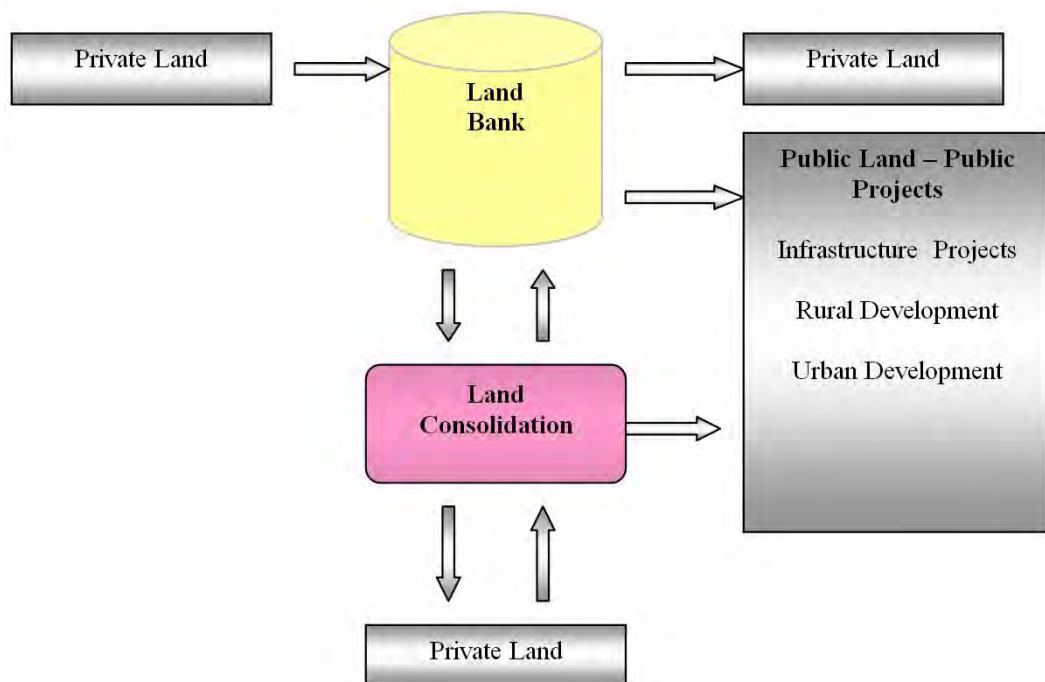


Figure 1: Land movement within the frame of Danish Land Bank (Blaabjerg, 2004)

The farmers in many countries have mainly been facing the issues pertaining to the lack of funding. The lack of funding combined with the obstacles faced in being granted favorable cash loans from commercial banks present a serious problem for enlargement of holdings in the Eastern European and transitional countries. The problem of acquisition of agricultural land does not solely exist in the countries in transition but also in the developed countries of Western Europe. The proximity of urban centers and possibilities of their expansion often increase the price of agricultural land making an ordinary farmer unable to buy it on the open market. The expansion of urban zones and construction of infrastructure facilities directly affect the increase in the selling price of the agricultural land and the lease price. Thus the agricultural land becomes unaffordable/unattainable for many farmers. That is often the case in densely populated European regions such as Belgium and the Netherlands. Besides the basic activities implemented in these countries within the land banks, a significant activity is assigned to lease and sale of agricultural land at much more favorable prices than the market ones. These activities are not being carried out to generate profit but rather to contribute to the overall economic progress and market regulation.

The land bank/ land fund is supplemented and enlarged by land acquisition on the open market or by means of other mechanisms prescribed by law, such as exercising the right to expropriation and pre-emption right. With land incorporated in the land banks, the land usually becomes the ownership of the state - the ownership rights change (Figure 2).

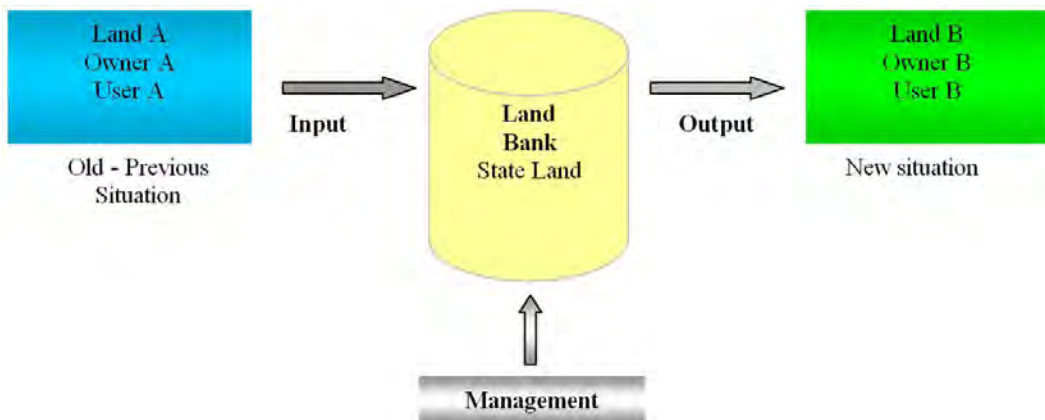


Figure 2: Land Bank model with change of ownership rights

Land banks can also contribute to reaching the new situation by changing the function – the use of land without change of ownership rights (Figure 3) (Fernández, 2010). In some environments where the owners do not cultivate their parcels but still do not wish to sell them, due to being emotionally tied to the land, land banks can help in better use of the land. The main objective of the Land Bank named Ban Te Gal (Banco de Terras de Galizis) in the Spanish province of Galicia address the problem of the abandoned land:

- It acts as a mediator between the owners and the lessees, leaseholders,
- Guarantees the right of ownership over the land incorporated in the land bank,
- Guarantees payment of rents to the owners of the land incorporated in the land bank,
- Organizes the return of the parcel to the owner upon the expiry of the lease agreement.

Besides these functions, the specific objectives of this land bank also include promotion of life and work in the rural environments (Law on Land Bank of Galicia, 2007):

- Secures the preemption right and renting to the young farmers, and especially to women, in extension of agricultural holdings or establishment of the new ones,
- Establishes new settlements in the regions seriously affected by population aging and migration,
- Establishes the fields for agricultural research and experiments,
- Forms common–public land aiming to promote sustainable development and protect the environment.

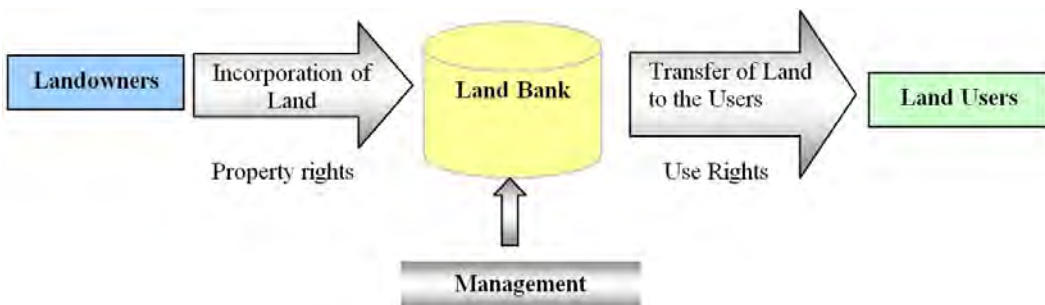


Figure 3: Land bank model without change of ownership rights

The pronounced role of land banks as mediators in real estate trade, as well as in land management, planning and development, is to improve the quality of life and create better conditions for agricultural production. Sustainable land management and soil protection are essential for the protection of loss of production potential (Cimprič, Zavodnik Lamovšek, Lisec, 2013). Land is an important and limited natural resource and its efficient management and protection must be recognized both nationally and globally.

## 2.2 Organization and management

The majority of land banks are organized at the state level as is the case in the Netherlands, Sweden, Croatia, Hungary, Lithuania, Georgia, Estonia, Denmark, Poland, Bulgaria and Slovenia. In Germany land banks are organized at regional level. Land banks mainly operate as separate state institutions or are set up within the existing state institutions, most often within the Ministry of Agriculture or Ministry of Finance. In the majority of countries the management system is centralized, sometimes with regional units.

The Hungarian land bank, National Land Foundation Management Organization – NLFMO is the central organization with 19 regional units. In these units operational tasks are carried out that can be performed at the local level and they collaborate with the services of the canton they are located in (Sebestyén, 2004).

The German Land Bank, BVVG (German Land Use and Management Company Ltd) is organized in the similar manner, where the management structure is centralized and operational structure decentralized (Kreese, Dells and Arnim, 2004).

Organizational structure of the Land Bank of Galicia (Ban Te Gal) consists of three levels. The first two levels (Central Office and Provincial Delegations) are within the competence of Ban Te Gal; whereas the third level (the local level consisting of 60 local offices) is under the competence of the Support institutions (Diaz, 2008).

In the Netherlands there are two state institutions from different ministries which are included in the agricultural land banking, whereby the role of one is of operational and active character, whereas the role of the other is passive. The reason for existence of the two state land banks lies in a decades- long land banking in the Netherlands and diverse objectives placed before the state bodies when constituting the land banks. The first land bank was formed long time ago in 1841 (Damen, 2004) within the Ministry of Finance, with an objective to manage the land in state ownership. This Land Bank functions at the decentralized level having regional offices across the country. The second land bank was formed in 1946 under the auspices of the Ministry of Agriculture and Fisheries (Damen, 2004), with an objective to manage the “newly captured” land obtained by sea reclamation.

As shown, the land banks have different organizational structure and in the majority of countries this structure includes a managing unit at the state level and operational unit at the regional or local levels. Land banks differ also in view of their management structure - some land banks are organized as joint stock companies, with the decision-making powers being assigned to the Management Board, whereas in other land banks all decisions are being made by the Directors or Ministers.

### 2.3 Financing

Financing of land banks operation is yet another distinctive feature between the land banks in different European countries. Majority of land banks are financed from the state budget since land banks in those countries are in state ownership. The funds generated by sale and leasing out the land in scope of the land banks are therefore transferred to the state budget.

In some countries land banks are organized as joint stock companies (Germany and Galicia, Spain). The German BVVG Bank, although state-owned, is not financed from the state budget. The funds generated by this land bank are used for financing its activities, with only the remaining portion of the funds generated being transferred to the state budget (Kreese, Dells, Arnim, 2004). In the Land Bank of Galicia (Ban Te Gal), all activities are financed from its own funds, and the funds remaining after the Land Bank activities costs have been settled are not being transferred to the budget, but rather distributed to the land owners who had invested their land in the Land Bank.

### 3 VALUE FRAMEWORK FOR EVALUATION OF LAND BANKS/FUNDS FUNCTIONING

Land banks are differently institutionally organized from one country to another which is the consequence of the historical, sociological, cultural and other diversities. Regardless of the differences, all land banks/funds have something in common which can present the object of evaluation. Three basic elements are important in evaluation of land banks/funds function: objectives, strategy and results. These three elements can be associated with the *functional levels* and with the *responsibility levels* (Figure 4). Generally, the land banks function at three levels:

- Policy level
- Management level
- Operational level

Each of these levels performs a separate role and tasks related to the evaluation elements.



Figure 4: The relation between the evaluation elements and functional levels

The methodology for land banks/funds evaluation is based on direct comparison between the land banks in different countries. The evaluation is based on the method of multiplicity of corresponding causes -

indicators, responsible for good functioning of the functional levels evaluated at the national level and on the comparison of those indicators with the examples of good practice (Table 1). In the first column of the value framework, the levels linked to the evaluation elements of land banks/funds have been defined. The second column comprises the indicators – causes which additionally better define the given levels and are to be valued when evaluating the concrete land banks. As regards the selection of indicators describing in the best possible way the evaluation areas, the national studies presented during the FAO workshops dedicated to the land banking have been analyzed. The indicators do not merely represent a simple breakdown of the areas being evaluated, but are inter-related and as such reflect the situation in the respective area. The indicators are also linked with the modern views on the efficient land banks' functioning. In the third column, based on the empirical experience and analyses of different models of land banks/funds, the examples of good practice have been provided against which the indicators are to be compared and evaluated. The examples of good practice have been defined based on the international experiences to best reflect at the national level the connection with the land bank well-functioning. The examples of good practice used in this paper are therefore not the characteristics of “the best system”. The examples of good practice have been taken as a fair consequence of relations, functional and other relationships which in the local context lead to good results.

Table 1: Value framework for land banks/funds evaluation

<b>Functional Levels (Evaluation Area)</b>	<b>Indicators</b>	<b>Good Practice</b>
<b>Policy level</b>	Strategy of land banks	There is a clear strategy.
	The law	Functioning and organization of the land bank are regulated by the separate law or fall within the framework of some other law.
	Objectives	The land bank objectives are multifunctional and provide support to: <ul style="list-style-type: none"> <li>— land consolidation,</li> <li>— land market to establish control over such market,</li> <li>— land management,</li> <li>— realization of the rural and urban development projects and infrastructure projects.</li> </ul>
	Type of land to constitute the land banks fund	Land types: <ul style="list-style-type: none"> <li>— agricultural land,</li> <li>— forest land,</li> <li>— urban construction land,</li> <li>— suburban land,</li> <li>— abandoned land.</li> </ul>
	Financing (how land acquisition and land bank functioning is financed )	Land acquisition is financed from regular state budget, revenues from sale, revenues from lease or from special government investment program. Operation is financed from regular state budget, from revenues from sale, land lease, from natural persons and investors.



<b>Management level</b>	Organization	Land bank is organized at state, regional, or local level or at all three levels together.
	Type of institution	Land bank is a state institution, agency or private institution.
	Organizational structure	Centralized organization at the state level or decentralized organization with offices at regional and local levels.
	Decisions- making	Responsible person in the Ministry or the Manager in collaboration with the Board of Managers, separate regulatory body in collaboration with the users.
	Monitoring and supervision	Monitoring and supervision is carried out by a Parliamentary commission, Ministry of Agriculture or Finance, Supervisory Board including members from the private sector.
<b>Operational level</b>	Support and promotion of land mobility	Land bank provides information to all interested parties about the supply and demand, communicates and acts as mediator with the cadasters and notaries, secures standard contracts etc.
	Land transactions	Land acquisition: purchase (purchase can be open or the mechanisms of pre-emption right to purchase and expropriation are used), exchange, leasing out or taking over the remaining land after restitution, managing the abandoned land. Transfer of land: Direct sale, land allocation as part of land consolidation procedure, exchange, renting (short-term rent, long-term rent), leasing out (short-term lease, long-term lease).

Based on comparison of indicators against the examples of good practice it is possible to determine the characteristics of each land bank and identify critical features affecting its good functioning by running, for example, the SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. This analysis should assist better understanding of the current situation of the analyzed land bank and defining of the strategy to be implemented in order to make its functioning more efficient.

#### 4 SERBIAN EXPERIENCE – LACK OF LAND BANKS

Serbia is one of the rare countries which do not have a land bank. It would be irrational to copy some of the successful land banks examples into the Serbian circumstances. Copying the successful land banks organization to the situation of agricultural land management in Serbia would not produce satisfactory results because the countries differ in the historical, social, cultural and legislative terms. Also, the objectives which should be achieved through the land bank differ from one country to another. The main objectives which the land bank in Serbia should meet are reflected in a more efficient agricultural land management along with creating conditions for land consolidation and fight against the abandoned land.



Within the Ministry of Agriculture, Forestry and Water Management there is the Directorate of Agricultural Land which manages a considerable fund of agricultural land in state ownership. According to the data of the Ministry for 2013, the agricultural land in state (public) ownership covers the area of 923,004 ha, out of which the land that can be farmed covers the area of 529, 295 ha. After the return of the confiscated property in the restitution procedure, it is expected that 200,000 to 250,000 ha will remain as arable agricultural land in state ownership. At this moment, Serbia does not have legislation or administrative infrastructure that would enable sale and purchase of the agricultural land in state ownership for the purpose of land funds' establishment. According to the *Law on Agricultural Land*, agricultural land in state ownership can be leased out only in a special tendering procedure. The land in state ownership cannot be used in the land consolidation projects in order to enlarge the property of the small agricultural producers. For that reason, the results of the implemented land consolidation project are much worse than in the countries using land banks as instrument for enlargement of the holdings.

Extreme land fragmentation in the Republic of Serbia and non-competitiveness of the rural land are the basic reasons why many parcels are not being cultivated. Parcels are not cultivated because they are owned by the elderly persons who are unable to intensively engage in farming, or by the people living in the cities who do not perceive agriculture as their primary occupation. Due to such a poor situation in the rural regions even those who would want to engage in more serious agricultural activities and extend their property do not have anyone to purchase the agricultural land from. Owing to the low market value of the agricultural land, the money they would obtain from sale is not sufficient for the owners to buy the houses in the urban regions or to invest in some other business. That is why many of them are retaining the ownership over their property even though it does not generate profit for them. Some owners are especially emotionally attached to the land which has been inherited for generations within a family. They see it as the ultimate security and refuge should they lose their job in the city. According to the estimates of the Ministry of Agriculture there are also approximately 300,000 ha of the abandoned land in Serbia, which corresponds to more than 5% of the total arable agricultural land. This data indicates that Serbia needs to establish the land bank taking into account the existing problems as well as the given value framework. Serious measures need to be undertaken in order to enable the functioning of the land funds concept.

## 5 CONCLUSION

Land banks/funds are infallible part of successful and comprehensive process of land consolidation and land management in general. The experiences from Western European countries clearly prove that land banks/funds are an effective tool for improving the agricultural land structure. Even though land banks/funds are differently organized and financed in different countries, they all proved to be very effective in the context of local historical, sociological, economic, cultural and other specificities. Nevertheless, the value framework presented in this paper could contribute to further improvement of land management supported by land banks.

In addition to being able to facilitate revision and promote the functioning of existing land banks, the value framework can also constitute a solid basis for the establishment of new land banks. In Serbia there are no land banks in any form. The positive way of viewing this problem is that Serbia has an opportunity

to benefit from certain experiences of Western European countries and incorporate them taking into account local specificities. This value framework presented in this paper could be one of the main tools of forming the system of land banks in Serbia.

### Acknowledgement:

*This paper was prepared as a part of the project “Studying climate change and its influence on the environment: impacts, adaptation and mitigation” (43007) financed by the Ministry of Education and Science of the Republic of Serbia within the framework of integrated and interdisciplinary research for the period 2011–2014.*

### References:

- Act 7/2007 on administrative and tax measures for the conservation of utilized agricultural areas and on the Land Bank of Galicia. Diario Oficial de Galicia form 21<sup>st</sup> May 2007. Ban te Gal: Presidencia de la Xunta de Galicia.
- Blaabjerg, E. (2008). The Danish experience with Land Banking. Regional Workshop on Land Tenure and Land Consolidation – Land Banks and Impact Assessment. Prague. Czech Republic. 22–26 June 2008. [http://www.fao.org/fileadmin/user\\_upload/Europe/documents/Events\\_2008/Land2008/Blaabjerg.pdf](http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2008/Land2008/Blaabjerg.pdf), accessed: 26. September 2013.
- Cimprič, T., Zavodnik Lamovšek, A., Lisec, A. (2013). An analysis of land development tax for the conversion of agricultural land to urban use in Slovenia after 1979. *Geodetski vestnik*. 57 (3), 561–577. DOI: <http://dx.doi.org/10.15292/geodetski-vestnik.2013.03.561-577>
- Damen, J. (2004). Land banking in The Netherlands in the context of land consolidation. Land Banking/Land Funds as an Instrument for Improved Land Management for CEEC and CIS. Tonder. Denmark. 17–20 March 2004. [http://www.fao.org/fileadmin/user\\_upload/Europe/documents/Events\\_2004/Land2004/Netherlands\\_paper.pdf](http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2004/Land2004/Netherlands_paper.pdf), accessed: 24. September 2013.
- Diaz, M., Zolle, C., Ónega, O., Coimbra, E. (2008). Operative aspects of Land Bank of Galicia. Monitoring activities. Regional Workshop on Land Tenure and Land Consolidation – Land Banks and Impact Assessment. Prague. Czech Republic. 22–26 June 2008. [http://www.fao.org/fileadmin/user\\_upload/Europe/documents/Events\\_2008/Land2008/Diaz.pdf](http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2008/Land2008/Diaz.pdf), accessed: 24. September 2013.
- Marošán, S., Miličević D., Đokić V., Šoškić M. (2014). Value framework for evaluation of land banks/funds. *Geodetski vestnik*, 58 (3): 568–577. DOI: 10.15292/geodetski-vestnik.2014.03.568-577
- Fernández, C. Z. (2010). Land bank of Galicia (Spain): main success points and difficulties after 3 years of working. Prague Workshop on Land Tenure & Land Consolidation – Land Banking and Public Land Management. 21–24 June 2010. [http://www.fao.org/fileadmin/user\\_upload/Europe/documents/Events\\_2010/Prague2010/BanTeGal\\_en.pdf](http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2010/Prague2010/BanTeGal_en.pdf), accessed: 12. October 2013.
- Kreese, S., Dells, K., Arim, H. E. (2004). The Role of Land Banks/Land Funds in the Privatization Process. Land Banking/Land Funds as an Instrument for Improved Land Management for CEEC and CIS. Tonder. Denmark. 17–20 March 2004. [http://www.fao.org/fileadmin/user\\_upload/Europe/documents/Events\\_2004/Land2004/Germany\\_BVVG\\_paper.pdf](http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2004/Land2004/Germany_BVVG_paper.pdf), accessed: 24. September 2013.
- Marošán, S. (2013). A framework for the evaluation of land consolidation systems. Doctoral Dissertation. Belgrade: Faculty of Civil Engineering.
- Sebestyén, R. (2004). The National Land Fund. Land Banking/Land Funds as an Instrument for Improved Land Management for CEEC and CIS. Tonder. Denmark. 17–20 March 2004. [http://www.fao.org/fileadmin/user\\_upload/Europe/documents/Events\\_2004/Land2004/Hungary\\_paper.pdf](http://www.fao.org/fileadmin/user_upload/Europe/documents/Events_2004/Land2004/Hungary_paper.pdf), accessed: 24. September 2013.
- Zakon o poljoprivrednom zemljištu (= Agricultural Land Act). Official Gazette of The Republic of Serbia, no 62/2006. Belgrade: Government of the Republic of Serbia.

**Dr. Stevan Marošán, Uni. Grad. Eng. of Geod.**  
University of Belgrade, Faculty of Civil Engineering  
Department of Geodesy and Geoinformatics,  
Bulevar kralja Aleksandra 73, 11 000 Belgrade  
e-mail: marosan@grf.bg.ac.rs

**Dragana Miličević, Msc of Geod.**  
University of Belgrade, Faculty of Civil Engineering  
Department of Geodesy and Geoinformatics,  
Bulevar kralja Aleksandra 73, 11 000 Belgrade  
e-mail: dmilicevic@grf.bg.ac.rs

**Prof. dr Vladan Đokić, Uni. Grad. Eng. of Arch.**  
University of Belgrade, Faculty of Architecture,  
Bulevar kralja Aleksandra 73, 11 000 Belgrade  
e-mail: vdjokic@arh.bg.ac.rs

**Assistant mr. Mladen Šoškić, Uni. Grad. Eng. of Geod.**  
University of Belgrade, Faculty of Civil Engineering  
Department of Geodesy and Geoinformatics,  
Bulevar kralja Aleksandra 73, 11 000 Belgrade  
e-mail: mladens@grf.bg.ac.rs