



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



IMPROVING LAND MANAGEMENT BY INTRODUCING THE ACHIEVEMENTS GAINED THROUGH PILOT PROJECTS

CASE STUDY OF DIRECTORATE FOR AGRICULTURAL LAND, REPUBLIC OF SERBIA

DRAGANA GODJEVAC OBRADOVIĆ

Directorate for Agricultural Land, Ministry of Agriculture, Forestry and Water Management,
Republic of Serbia

dragana.godjevac@minpolj.gov.rs

**Paper prepared for presentation at the
“2018 WORLD BANK CONFERENCE ON LAND AND POVERTY”
The World Bank - Washington DC, March 19-23, 2018**

Copyright 2018 by author(s). All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Abstract

The Serbian Ministry of Agriculture, Forestry and Water Management (MAFWM) in particular its Directorate for Agricultural Lands (DAL) was supported from 2013-2015 by the project “Rural Development – Effective Land Management”. The project was funded by the European Union, the German Government and by MAEP, implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

The goal of this project was to support the rural development policy through the efficient management of state and private owned agricultural land. For achieving this it was important to strengthen administrative structures and capacity building within the DAL and in selected pilot municipalities which were the main beneficiaries of this project.

The project objective is to build up rural development in Serbia through an effective management of agricultural land. It facilitates the implementation of the land consolidation schemes as well the measures to reduce abandoned agricultural land. The project contributes to the development and implementation of the land policy programmes and appropriate legal regulations concerning agricultural land. A major part of the project is related to the establishment of an information system on agricultural land.

This paper presents the major achievements and experiences we gained through pilot projects and how we are applying that knowledge to scale up to the national level.

Key Words: management of agricultural land, state-owned agricultural land, land management, Serbia



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Background

Within the framework of the activities on improving the management of agricultural land at the level of local self-governments (municipalities) in the Republic of Serbia, the Ministry of Agriculture, Forestry and Water Management (MAFWM) and Directorate for Agricultural Land (DAL) and the German Organization for International Cooperation (GIZ) are implementing the project Strengthening Municipal Land Management in Serbia.

Time frame of the first phase of the project was from 2013 to 2015. GIZ has started with the implementation of the project Rural Development: Effective Land Management. The project was financed by the European Union as well as by the German Federal Ministry for Economic Cooperation and Development. The objective is to support overall objectives of rural development policy through an effective management of agricultural land.

In the ongoing project phase, 2016 to 2018, the focus is on further improvement of human and institutional capacities in the field of rural development.

The Project contributed to the development and implementation of land policy programs and appropriate legal regulations concerning agricultural land.

The project addresses framework conditions for effective management of agricultural land through four activity fields:

- **Improved legal and administrative framework** according to EU best practice,
- **Improved management and monitoring procedures for state owned agricultural land** (including **IT infrastructure**),
- **Land consolidation** and
- **Combating abandonment of agricultural land**

The project objective is to build up rural development in Serbia through an effective management of agricultural land. It facilitates the implementation of the land consolidation schemes as well the measures to reduce abandoned agricultural land. The project contributes to the development and implementation of



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



the land policy programs and appropriate legal regulations concerning agricultural land. A major part of the project is related to the establishment of an information system on agricultural land.

The goal of this project was to support the rural development policy through the efficient management of state and private owned agricultural land. For achieving this it was important to strengthen administrative structures and capacity building within the DAL and in selected pilot municipalities which were the main beneficiaries of this project.

General data

The Republic of Serbia has **5.06 million hectares of agricultural land** or 65.21% of the territory of the Republic of Serbia (7,759 km²).

The dominant part of the agricultural land is used in the form of arable land (3.3 million hectares or 65%), while **about 7% per year is not used** (it is in the form of fallow or untilled soil). Beside the areas that are left fallow, significant part of meadows and pastures are not used because of inaccessibility or infestation or due to economic unprofitability (Agriculture, 2014).

Serbia has fairly high number of hectares of arable land per capita, but this does not show that Serbian agriculture land is highly productive. At the same time, having agriculture as one of the main economic activities in Serbia (strategically), this agricultural land should be preserved, transformed into more productive areas for more intensive, higher value productions, as well as kept and protected as valuable resource for further development (production of higher value products, organic production etc.).

Institutional and legal framework

Legal basis for agricultural land planning, protection, regulation and use is the Law on Agricultural Land (LAL), which was adopted in 2006, consolidated and amended in 2009, 2015 and 2017. This Law represents the basis for creation of all measures targeting agricultural land policy and agricultural management.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



DAL is a body within the Ministry of Agriculture, Forestry and Water Management established by the above mentioned Law.

DAL is an administrative body responsible for: management of agricultural land in state ownership; establishment and management of the Information system of agricultural land of the Republic of Serbia; allocation of funds for construction works related to agricultural land management; monitoring of implementation of the annual programs of protection, development and use of agricultural land; international cooperation in the area of protection, development and use of agricultural land; performing other tasks related to planning, protection, development and use of agricultural land.

IT System

The project of establishing agricultural information system aims to support rural development through the promotion of land management at the national and local levels. Special attention has been paid to improving the procedures for managing, monitoring and controlling state-owned agricultural land.

The establishment of an information system on agricultural land started three years ago, and the first users who tested the information system were pilot municipalities. In the meantime, the IT system has been upgraded and adapted to new legal solutions, intensively worked out over the past year and now serves as a final product. Further enhancements of IT system shall be done with new applications.

Use of IT System in Land Administration Service Delivery in Good, Cheap, Fast and Equitable way

The existence of accurate and up-to-date information on agricultural land is one of the basic prerequisites for the efficient management of agricultural land and the starting point in making land policy decisions. The information system for agricultural land management of the Republic of Serbia is mostly based on the data of the Directorate for Agricultural Land and the Republic Geodetic Authority (RGA). It uses the GIS platform, with the support of an alphanumeric database.

DAL, in cooperation with the GIZ and the German Government, developed a web application for the development of an annual program for the protection, arrangement and use of agricultural land (GIS application), which means that municipalities do not have desktop software, no additional maintenance costs, because approaching the application by internet. The IT system for the management of state-owned agricultural land was designed to cover the procedures for leasing state owned agricultural land. The



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



system has a modular structure and was being built step by step. It is scalable, which means that new or adjusted working procedures can be integrated at any time in the future. Everything that municipalities are working on, is automatically visible to DAL - no more waiting and sending by mail of the annual program, hundreds of pages of hardcopy real estate documents (administrative procedure is accelerated). The best thing, application is completely free for municipalities.

The quality of the IT system depends on the quality of data it includes and produces. The Agricultural Land Management Information System includes data from different sources. Official data on agricultural land parcels come from Geodetic Authority (alphanumeric and spatial data), data about existing leasing contracts are from Directorate, and data from the field come from cities and municipalities (actual situation in the field). Availability of data from the Geodetic Authority with a clearly defined format, content and timeframe of data exchange was a prerequisite for the good functioning of the system. Directorate and Geodetic Authority signed a Memorandum of Understanding on 2016 (MoU) regarding data delivery. This MoU covered all the data at Geodetic Authority necessary to run the IT-solution of the Directorate:

- Alphanumeric data from the real estate cadastre (.mdb format);
- digital cadastral map data supplied in gdb format (geodatabase)
- digital Orthophotos (epoch 2007-2010 and epoch 2011-2013) was delivered in tiff / twf format for each municipality separately, and mosaic was made and imported into the application
- Data of the Register of Spatial Units delivered in gdb format (geodatabase)
- Satellite images (epoch 2015-2016) - delivered as a WMS service
- Digital terrain model - delivered in the form of shp files with spatial determinations
- Access to the ArcGIS Map service for spatial data of the cadastral parcels, buildings and addresses for all the municipalities of the Republic of Serbia(Geodetic Authority, 2015)

One of the biggest problem users from municipalities were facing was the difference between official records about parcels and the situation in the field. The new structure of the database enabled improvement and updating of cadastral data. The IT system produces reports with the list of parcels that need updating (with the current information from the field). The Directorate sends those reports to Geodetic Authority, where they change official records accordingly.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Activities:

- Assistance of DAL to the municipalities in the preparation of the Annual Program for the protection, arrangement and use of agricultural land;
- Development of the InZem (database) application which communicates with Localis (GIS)- adding necessary tools for the development of programs, decisions and contracts, out-of-court settlements, rightfulness of service, investments, monitoring of lease payments, etc.;
- Improvement of data exchange with the RGA;
- Cooperation with experts in the development of IT systems;
- Correction of data received from the RGA, which does not correspond to the actual situation in the field;
- Creation of the Annual Program through the IT system;
- Training of staff in municipalities.

Goals:

- Efficient management of state-owned agricultural land;
- Increase of the area of agricultural land in state ownership;
- Increase of land for leasing and investments;
- Increase in rental income from agricultural land
- Creating conditions for farmers to get state-owned agricultural land in a more transparent, faster and simple way
- All necessary data in one place (Digital Orthophotos, Digital Cadastre Plan, Register for Agricultural Land ...)
- The process of making the annual program unified, the same for all municipality, the data organized equally in one place, and as such can be compared and further analyzed, which was not the case so far;
- Reduced possibility of minimal error, by clicking on the parcel you get all the necessary data on it;
- There is no possibility to hide any m² when creating an annual program

The implementation of IT- solution is not a simple acquisition and installation of the software. It does not happen in a year or two. It is a constant progressing activity for all stakeholders involved in the process. Successful implementation is not just about getting state of the art technology. It is more about willingness of the end users to use it, and to accept the change new system will bring both on organizational and individual level. The future owners and users need to be involved from the very beginning of the system development and take the responsibility for it.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Not everyone will start using it at the same time. More advanced users will accept it immediately, and then again there will be those trying to resist it. The important thing is to have a strategy how to include everyone, and work on it. Continuous and permanent education of the users is one way to do it. Therefore, a training system should be in place and available for all the users.

System is as good as the information it produces. The quality of the information will depend on the quality of data that is put into the system. Cleaning of data is the part of the implementation process, and users should be aware of it and willing to invest resources into it. Data exchange between the Geodetic Office and Directorate has to be regulated and secure.

Maintenance of the system is another important part of successful implementation. It will enable continuous system functioning, its further improvement and scaling up (Katja Grbić, Svetlana Bačanić, 2017).

In the upcoming period, training of the local municipal staff will be intensified and continued. A part of local governments (about 30%) is ready to do the lease of land through IT system in 2018, and we expect the same for the other municipalities in next two years. It is important to eliminate all obstacles, enabling to establish unique information system on agricultural land of the Republic of Serbia, which will significantly help in efficient management of agricultural land as a resource of strategic importance.

Land Consolidation

The new rural development concept treats land consolidation as a complex project which, among other things, aims at continual renewal and promotion of the rural community. Successfully implemented land consolidation leads to overall upgrading of agriculture, increase in productivity, efficiency and competitiveness of the entire agricultural sector. It also leads to a better planning and land management, creates new jobs in agricultural regions, facilitating the flow of private and public investments into this field, contributes to promotion of the environment protection and enables efficient natural resources management.

Selecting a community should be done for those where the chances of success are reasonably high.

Methodology for evaluation of municipalities took into account all relevant accessible information, and following 8 selection criteria were used in this particular case:



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



1. Strong support from local authorities
2. Strong willingness by community members to participate in the pilot project
3. Updated land registry and cadastre maps
4. The existence of fragmented, scattered parcels with potential for consolidation and enlargement
5. Developed agricultural production and established marketing channels
6. A relatively small number of absentee landowners
7. Suitability of the area proposed for land consolidation
8. Potential link to other development projects(Stevan Marošán, Maja Trajković, 2013)

Lessons learned:

-Investments in land consolidation, although expensive, have a high return / benefit rate.

Throughout Europe, land consolidation has proven to be one of the main ways to improve the income of the rural population. The advantages of such legally regulated state intervention can be improved conditions of production and labor in agriculture, higher tax revenues, increased market value of merged estates, improved ownership relations, better rural infrastructure and precise asset registers and cadastral maps. These benefits were also anticipated and expected when the seven pilot projects started.

-In a modern approach to land consolidation, all relevant stakeholders need to be fully involved, with a highly developed and continuous flow of information throughout the process.

Consolidation, as a far-reaching sovereign state intervention, affects the transformation of appropriate landscapes, the re-structuring of the field structure, as well as the preliminary impact of ownership; it is necessary to implement it with full transparency, close involvement of those affected by it, equal treatment of all clients / stakeholders, application of the rule of law principle, and with a high degree of professionalism and responsibility with the competent authorities.

-All relevant stakeholders are convinced in favor of the consolidation process in their municipality.

Although the interviewed groups play different roles and are partially subordinate to each other, there is a wider agreement between the different groups in terms of strategic, legislative and operational issues. Land owners, farmers, as well as representatives of local self-government, are convinced of the great advantages and benefits of the land consolidation process in their municipality. Despite some unsatisfactory experiences they had during the project, and the frustration they occasionally exposed, they are eager to continue with the activities of the land consolidation.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



-Consolidation projects include complex technical and administrative procedures that require a high degree of professionalism and cooperation among all stakeholders.

It is recognized that all actors came to the project with a high degree of involvement and high expectations. Nevertheless, certain groups of stakeholders have identified some disadvantages during the process of land consolidation. Issues that have led to the greatest number of subsequent disappointments among stakeholder groups are primarily related to:

1. Lack of legal regulations and appropriate administrative rules,
2. Insufficient knowledge and sometimes insufficient professionalism of the Commission for land consolidation and local self-government,
3. Unclear responsibilities of the actors in terms of organizational issues,
4. Insufficient and inaccurate information provided to land owners and farmers within the area of land consolidation.

-Confidence and commitment of stakeholders in land consolidation should be constantly developed and encouraged throughout the process.

All relevant actors from the very beginning have been fully engaged, and they started working with the best intentions. However, during the project, enthusiasm sometimes fell due to different circumstances, and in some cases even disappointments, complaints and, ultimately, frustration.

-The Board of Participants, introduced as a newness, was recognized as an indispensable source of "knowledge of local circumstances" and "local people's opinions" in decisions made by the Commission for land consolidation.

The Board of the participants, established in each of the projects of the consolidation, mostly performed well its role. The Board functioned best in three projects (Negotin, Paracin and Žitorađa). In addition, stakeholders in these pilots understood that the established Board was part of a modern approach to preserving participation and transparency in such a complex process. However, there is a serious need to improve their activities in other pilot projects and future consolidation processes in order to establish a "culture of communication" between stakeholders in land consolidation.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



-The Commission for land consolidation has been recognized as the only competent authority with the full right to regulate all matters of land consolidation, and which functions as a team with specific tasks for all its members.

The Commission for land consolidation, as the competent body, is responsible for conducting the entire land consolidation procedure, and it must legally and factually regulate all issues related to the land consolidation. This should also apply to cases of unsatisfactory implementation of shrinkage, leveling and construction works, as well as if the principle of land consolidation of "compensation in the land of the same value" is violated. The role of the Commission should definitely be enhanced and members should act - in the opinion of the Board and participants - as much as possible as a team / team. In addition, it is necessary that the roles and duties of all stakeholders in the consolidation are determined by law, and clarified in the rules. It is necessary that the monetary compensation is adequately regulated.

-The main project of land consolidation with the included Plan of common and public facilities with the accompanying Landscape Development Plan, which is determined and adopted by the Commission for land consolidation, should become the only legally relevant document that determines the nature and extent of the measures being implemented.

It is necessary that all measures of land consolidation and implementation activities have a legal basis. This legal basis is given in the "Main Project", which determines and regulates certain issues. There is no room for other interventions, activities, or decisions driven from outside.

-The environmental impact assessment should become an integral part of any land consolidation process. It should be regulated by law.

Environmental conservation is a standard across Europe. Pilot projects have shown that this approach is accepted and easy to establish through appropriate stakeholder preparation. At the same time, there is a wider understanding of this approach in the public.

-The constant and complete exchange of information is necessary for successful and efficient implementation of the consolidation.

All actors, especially participants and Boards, expressed their request to continuously receive satisfactory information on the status of the project. This shows that participants want to be able to get a real stake in the process and want to be involved in all segments of the process. People want to understand what is happening in the project and what follows as a next step. They also noted that they want their individual



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



issues and concerns treated seriously and with respect. They also expect the competent authority for land consolidation to be permanently accessible, and that their representatives must be able to give advice to farmers / owners and vice versa.

-It is necessary to respect the right of private property during the entire land consolidation procedure, and every procedure conducted on private plots should be officially announced to the owners via the Commission for land consolidation.

Participants have a natural sense of what is in line with the rule of law, and what is the opposite. They do not accept that a contractor starts shredding work or construction work in their field without a formal administrative order that allows such use of another's right to immovable property. They complain that when new parcels are received and accepted, due to the comments of third parties, they are changed without any communication with them. They do not accept that they have to leave the old pitches and take on new ones while the plan is still in dispute. This practice has been applied during pilot projects, and it is necessary to fundamentally change in formal legislative regulations

-All actors, in particular the public administration and external performers must be extremely professional, efficient and their responsibilities must be subject to monitoring and control by the participants.

Citizens today require a high degree of professionalism of competent authorities and public administration. They expect the competent body to fulfill its tasks and duties efficiently and fully in accordance with the law. Organizational issues, unclear responsibilities and deadlines are generally unacceptable. This also applies in the procedures of consolidation. These requests were also mentioned by the representatives of external performers. They experienced, in some pilot projects, unsatisfactory work flow, incomplete information and uncoordinated data transfer in operation. The technical specifications for the procurement of the works for which they were engaged were not in accordance with the actual situation, and the contractors complained about the intervention of "external experts"; as well as that the responsibilities in those situations were not clear. These issues were mostly reported in cases where the commission for land consolidation was not a proactive administrative body; in some cases, the impression was that the members of the commission were overburdened and insufficiently experienced to solve complex and mutually related issues. Coordination of the implementation of works was often not appropriate by the administration.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



-A program of education and training for all stakeholders in the process of land consolidation is necessary, and this program should continue throughout the duration of the project.

In order to achieve full professionalism during the implementation of complex projects of land consolidation, training for the members of the Commission for Commissariat should not consist of only one workshop with a professor from the university. These projects require solid theoretical and practical education, as well as capacity building for "soft skills" (such as communication skills, presentation skills, and moderation and mediation techniques). In addition, such a training program should be preserved as a knowledge base for future projects, in order to avoid the loss of collective experience after completion of the project. In the opinion of the consultant, it is necessary that the knowledge and experience gained in the project of land consolidation be made available to the following projects. Only such an approach can gradually achieve real professionalism in the work of the competent body for land consolidation.

-Issues of financing and provision of funds for the project of land consolidation should be clarified and officially confirmed before the start. The certificate should include the determination of available funds annually.

Financial issues are a material basis for the successful implementation of the consolidation process. The occurrence of financial problems during the proceedings leads to regular delays in the process, additional burden on the participants and is the cause of the disappointment of landowners and mistrust in the responsibility of the public administration. "Permanent appropriation" is the appropriate budgetary instrument for providing the financial resources necessary at an annual level and should be applied to land consolidation. In addition, the compensation for the commission for land consolidation must be satisfactory and cover the real efforts that members have to invest.

-Special attention should be paid when engaging contractors to public procurement and subsequent contracting procedures. Contracts must accurately describe the duties of the contractor and the employer.

A clear description of the works and expected results, the precise determination of the scope of works, and the deadlines for delivery of results and contractual penalties in case of violation should become an integral part of each contract. Only the commission for land consolidation is responsible for this data. Standards for all works by external contractors should be developed in order to promote mutual understanding between the employer and the contractor, as well as to speed up the public procurement and contracting process.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



-Institutional and organizational setting of the competent body for consolidation requires the upgrading of operational units at the regional level and the central operational and administrative unit at the national level.

Numerous problems, shortcomings and inefficiencies within the current administrative environment for land consolidation in Serbia require a fundamental improvement, whereby land consolidation will play a key role in the future development of rural areas. In the opinion of the consultants, the identified problems and inefficiencies in the preparation and implementation of the consolidation in Serbia (determined by international consultants and local population in municipalities and villages) can be solved only if the competent body for land consolidation is established as a permanent state body. The forthcoming challenges of the social and economic development of rural areas in Serbia require a departure from the "ad hoc model of the commission" and a transition to a strategically applicable state institution (this has already been done in most European countries during the last century, in Germany in 1920).

It is possible to imagine two organizational models:

1. Establishment of several specific competent authorities for land consolidation (with an institutional setting in the form of an independent "state body" with sovereign tasks), distributed throughout the territory of the country, subordinated to a central operational body that functions as supervisory control and an administrative unit for all issues of land consolidation at the national level (as a unit derived from the competent ministry) and with the final legal supervision carried out by the ministry. Operational units would employ persons educated and experienced in the field of land consolidation and with the necessary administrative capacities for efficient implementation of the expected works.
2. Establishment of an additional department within the Republic Geodetic Authority (RGZ) with local agencies (in addition to their original task of working on state gauge and cadastre of real estate) that function as "competent body for land consolidation"; these additional departments, both in local agencies and in the headquarters in Belgrade, would be subordinated to the appropriate unit in the MAFWM with final legal control over the issues of land consolidation.

Regarding the advantages and disadvantages of the above mentioned models and with regard to the current circumstances within the public administration in Serbia, model 2 is considered as an appropriate approach for the professionalization of the institutional setting in matters of land consolidation;



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



The same organizational model has been applied for many years in various German countries (Joachim Thomas, Tamara Živković, Anica Milenković, Lidija Đorđević, 2015).

Benefits:

The support of land consolidation in Serbia has high mid and long term returns. Benefits from land consolidation programs are updated land cadasters, better infrastructure, better rural living and working environment, increased property market values resulting in increased investments, employment etc.

Key features of modernization are ensuring principles of good governance (e.g. transparency, accountability, participation).

Benefits of Land Consolidation:

A. For the land owners:

- More efficiency in agricultural processing -infrastructure improvements and land productivity;
- Increase in the value of land for bigger parcels;
- Increased income from land lease;
- Increase of registered agriculture households;
- Better utilization due to cleaning of the land;
- More intensive crops;
- Better accessibility - less dispersed parcels (financial and environmental impact, time saving);
- Household investments in plants, new cultures, as well as in agriculture machinery and constructions, storages;
- Social aspect - Increase of number of rural families, new marriages and expand of families.

B. For the municipalities:

- New and better infrastructure – roads, channels, flood prevention facilities, wind protection belts etc.;
- Improved Environmental protection, decreased pollution;
- Sport courts, multipurpose fields;
- Land for Community and public needs;
- Increase of personal investments of various kinds;
- Increased revenues as domino effect;



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



C. For the State:

- Increased income from land lease;
- Increase of registered agriculture households;
- More utilized agriculture land;
- More efficient agriculture;

Results and recommendations

As a result of having finalized pilot implementation of land consolidation (LC) in 7 pilot municipalities, 3 bylaws on modernized land consolidation procedures were drafted and handed over for adoption to DAL:

- Rulebook on the land consolidation procedure
- Rulebook on the contents of the technical documentation for the execution of geodetic technical works in land consolidation
- Rulebook on voluntary grouping of land ;

Regarding the foreseen future development in rural areas in Serbia, the following recommendations were given:

- Transition from the existing land consolidation practice that includes the Commission for land consolidation to the state-level leading approach,
- Strengthening the role of the Board of Participants of the consolidation,
- The drafting of the Consolidation Strategy as an integral part and in accordance with the Agricultural Development Strategy of Serbia,
- the development of land consolidation as a tool for parcel forming in order to solve future conflicts related to the use of land,
- Simplification of procedures for planning and issuing permits for common facilities,
- Intensification of the bottom-upward-oriented process and communication processes as measures for rural development,
- Introduction of procedures for assessment of environmental impacts in the land consolidation procedures (Joachim Thomas, Lorenz E. Riegler, Tamara Živković, 2014).



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Use of experiences in Pilot Municipalities in Land Consolidation for future activities of Land Administration Service Delivery in Good, Cheap, Fast and Equitable way

Activities:

-Improving the role of the Commission for land consolidation

The commission for land consolidation is the relevant authority in the process of land consolidation.

-Establishing a compulsory Board of Participants

The Board of Participants is an indispensable representative for common issues and carries out important consulting and monitoring tasks.

-Facilitating administrative actors in the issues of land consolidation to run awareness campaigns and inform them

The competent ministry, the local self-government unit and the commission for land consolidation should be professionally supported in promoting the modern approach to land consolidation in Serbia.

-Determining the scope and manner of cooperation of the local self-government and the competent body for consolidation in the phase of implementation of the project of land consolidation

Existing vague relationships between actors should be eliminated through appropriate administrative regulations and training modules.

-Changing the land use valuation methodology

The traditional method of assessing the value of land in Serbia proved insufficient to meet the legal requirements regarding the supply

-Establishment of a Plan of Joint and Public Buildings with the accompanying Landscape Development Plan as a key document for all measures being implemented in the field

Such a legal regulation would clarify the situation for all representatives of public interest in the process of planning common and public buildings in the land consolidation.

-Establishment of the adoption of the Plan for Joint and Public Buildings as a "Building Permit" in accordance with the Law on Planning and Construction

This legal regulation should eliminate the conflict in Serbian planning legislation.

-Introduction of mandatory Environmental Impact Assessment in the process of land consolidation

It is necessary as a European standard.

-Leaving the sub-commission institution in the process of land consolidation

Sub-commissions are ineffective and no longer necessary.

-Introduction of the objectives of the project of consolidation and the principles of consolidation into law



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Such basic rules should be regulated by state law.

-Radical changes in the starting phase and the preparation of the work of the consolidation

The preparatory phase needs to be changed from the "top to bottom" approach to bottom-to-bottom access

-Changing the purposes and contents of the Program of Land Consolidation

The existing form of the Land Consolidation Program is not in accordance with its legal purpose; this form and its traditional application have appeared as a problem.

-Establishing a budget instrument to guarantee a secure financial base throughout the course of the project
A corresponding budgetary instrument already exists in Serbia; it only needs to be provided for the purpose of consolidation.

-Introduction of the "Temporary Settlement" procedure in accordance with the principles of the rule of law

This instrument is necessary for the purpose of legal certainty in the implementation of "temporary introductions" and is standard in terms of the rule of law principle.

-Introduction of the "Preliminary instruction on the possession and use of land" so that the implementation works prior to the Main Project of the consolidation were feasible

This instrument is indispensable for legal certainty in the implementation of construction works and in shrinking fields and is standard in terms of the rule of law.

-Introduction of the "Decision on the consolidation" and "Final statements" as an administrative act of the competent body for land consolidation

The conditions for initiating the consolidation, as well as for determining the conditions for completion of the land consolidation, are issues for the competent body for land consolidation.

-Determining the course of the appeal

This is currently missing in the LAL.

-Determining the controlling control in matters of land consolidation

This is currently missing in the LAL.

-Development of standards for geodetic engineering and construction works

Relevant administrative rules are missing.

- Establishment of a modern organized competent body for land consolidation

This proposal is aimed at modernizing the institutional setting of the competent body for land consolidation.

-Drafting and adoption of a separate Law on Consolidation



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



This proposal is aimed at modernizing the legal framework for land consolidation (moving from a sectoral approach to an integrated approach to rural development).

-The compensation for the Commission for land consolidation should be appropriately regulated with regard to the local requirements that are required to be met by Commission members

The currently available fee for Members of the Commission does not cover the effort required by Commission members to change current administrative practice and calculate funds in "gross amount" (and not as now, to "net amount")

Abandoned land

The reasons for abandonment of land are multidimensional: natural constraints, land degradation, socio-economic factors, demographic structure, and institutional framework. Also, major environmental concern is the fire risk associated with abandoned land. Land abandonment is linked with the wider issue of rural depopulation.

There are undefined areas of abandoned agricultural land both in state and private property and also the lack of legal basis for effective response.

Even in arable landscapes with a long history of human intervention, environmental problems have accelerated in the last few decades. The effects of these changes are usually externalized, having a greater impact for society as a whole than for the farms on which they take place.

Five main problems are identified linked to the abandonment of agricultural land, namely:

- (1) reduction of landscape heterogeneity and promotion of vegetation homogenization, often associated with increased fire frequency,
- (2) soil erosion and desertification,
- (3) reduction of water stocks,
- (4) biodiversity loss and reduced population of adapted species and
- (5) loss of cultural and aesthetic values.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



The abandonment of agricultural land may also have a variety of positive consequences and raise opportunities, including re-vegetation and forest plantations, water retention and soil recovery along with nutrient cycling, and an increase in biodiversity. As for the problems identified in relation to land abandonment, their consequences are not equally relevant in all parts of the world (Jose M. Rey Benayas, Ana Martins, Jose M. Nicolau, Jennifer J. Schulz, 2007).

The implementation of government policies of subsidies for environmental services that encourage society to conciliate agricultural use and nature conservation is recommended. The land that becomes 'surplus' with respect to food production requirements may have a balancing effect on the production of other ecosystem services, for example through extensification.

There is a need for a strategic arrangement of managed and natural ecosystems, so the services of natural ecosystems are available across landscape mosaic. To stop land abandonment due to socio-economic pressure, farmers that use traditional and extensive practices should be rewarded for their role in maintaining such land use schemes. These exploitation systems would also preserve important cultural and aesthetic values that offer possibilities for the development of rural tourism. Rural tourism may revive rural landscapes that have suffered from agricultural abandonment and provide income for local populations, thus helping to maintain their cultural traditions. Generalizations in the field of land abandonment – especially when they are made on a global level – are difficult.

The decision about more (artificially or naturally) reforested areas on the one hand, and the maintenance of traditional agro-silvo-pastoral land uses on the other should always be made on the basis of local or regional studies. Subsidy systems in developed countries have focused on both agro-environmental services and forest regeneration though subsidizing the abandonment of marginal agricultural areas. (Jose M. Rey Benayas, Ana Martins, Jose M. Nicolau, Jennifer J. Schulz, 2007).

Use of experiences in Pilot Municipalities in Combating Abandonment of Agricultural Land for future activities of Land Administration Service Delivery in Good, Cheap, Fast and Equitable way

The volume of abandoned agricultural land in seven pilot municipalities was based on the data on unprocessed agricultural land from the Agricultural Inventory 2012 (Republic Institute for Statistics). Considering the data obtained through preliminary research and information gathered by interviewing



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



representatives of local self-governments, we have made a list of risk factors that affect the abandonment of agricultural land. According to a recent study of larger volumes, abandoned land has been identified mostly in depopulation areas, where the density of population is extremely low, where the income from agriculture is low and where the land market is underdeveloped. In the group of selected criteria / indicators, we added new ones related to the quality and availability of public services and services. We carried out statistical analysis in order to first determine which of the indicators most correlates with the rates of abandoned agricultural land in the seven observed municipalities, and second, to group the settlements of these municipalities into clusters based on the selected factors (indicators) that could serve in explaining the different degree of vulnerability to abandonment of agricultural land, according to the main cause or causes.

As expected, the areas with the highest percentage of abandoned agricultural land and the highest vulnerability are mountainous areas in the municipalities of Knjaževac, Svrlijig and Pirot (a special area of Stara Planina), where the number of inhabitants has been rapidly reduced over the past thirty years. In this group of settlements, almost half of the agricultural land is abandoned, or not cultivated. Many villages have fewer than 50 inhabitants, and most households make one or two members, mostly older than 65 years. In addition to isolation, in these areas, the poor land structure has been emphasized, i.e. fragmentation of possessions, which is another limiting factor for profitable intensive agricultural production.

However, in areas where the percentage of abandoned agricultural land is gradually decreasing, other factors, in addition to the age of the owner and the distance, become significant. In the next identified group of settlements, where abandoned agricultural land constitutes almost a quarter of the total agricultural land, the old population and the low level of economic activities of the population are still present, but the size of the estate is somewhat higher, but with a larger number of separate plots per farm. In these areas, despite difficult local conditions, there is a possibility for modernization of agricultural production, especially through improvement of the land structure.

Abandoned land does not always coincide with economic disadvantages or demographic problems. In the third group of settlements, the main reason for limiting the distribution of abandoned land may be the presence of additional, alternative profitable activities that may be related to agriculture, food processing, or other activities such as tourism, wood processing, etc. The average value of abandoned land in this group is one fifth of the total agricultural densities, with fluctuations within the group itself, which is conditioned by the quality of the land, the distance from the municipal center and important traffic routes, the configuration of the terrain or the passivity of the owner. In some areas, a significant number of



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



unregistered agricultural holdings, for example, in Žitorađa, 2100 unregistered farms occupy about 6000 ha of often fertile land. The status of uninhabited / abandoned land reflects the current lack of interest of owners for dealing with agriculture, high administrative costs of registration, unresolved property-legal relations and the fact that many owners no longer live near their property (Andrew Cartwright, Vilma Daugaline, Marija Drobnjaković, 2014).

Activities:

- Determination of areas of abandoned land by the Republic Agricultural Inspection and municipalities;
- Adoption of the prepared bylaw;
- Possible changing of tax regulations and imposing a higher tax on abandoned land;
- Cultivation of abandoned land through free of charge leasing of state agricultural land;
- Increase of amount of agricultural land under agricultural production by use of abandoned land for biomass and organic production.

Land leasing can be a complementary measure of support for the modernization of agricultural holdings and an increase in the total arable land. One of suggestions is to group fewer private parcels with more attractive plots when renting land. Regardless of whether the lease was carried out by a municipality or a third body, such a procedure requires intermediaries, mediators, to secure licenses from the plots owners themselves, in order to find interested buyers and make agreements between them.

Conclusion

Throughout the project the significant results are made as follows:

-IT infrastructure for agricultural land: The IT system has been upgraded and adapted to new legal solutions, and now serves as a final product. Further enhancements of IT system shall be done with new applications. The new structure of the database enabled improvement and updating of cadastral data. In the upcoming period, training of the local municipal staff will be intensified and continued. A part of local governments is already doing the lease of land through IT system in 2018, and we expect the same for the other municipalities in next two years. It is important to enable the establishing of unique



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



information system on agricultural land of the Republic of Serbia, which will significantly help in efficient management of agricultural land as a resource of strategic importance.

-Land consolidation: In accordance with the experiences in the completed land consolidations and the ones that are in progress, the 3 Bylaws prepared for adoption cleared the definition of the principle and the criteria for determining the territory, defining the obligations of certain bodies and made certain changes in the conduction of the Commission. The content of technical documentation for the execution of geodetic and technical works in the land consolidation follows in detail the definition of technical documentation, their complete content and each phase of the land consolidation, making the consolidation process more efficient and uniform. Also, by defining exact reasons for acting and with specified conditions, Commission for voluntary grouping, participation of local self-government units and other changes of the policy should be improved. Expected effects of completed land consolidation are updated land cadasters, better infrastructure, improved rural living and working environment, increased property market values resulting in increased investments, higher employment etc., all that ensuring principles of good governance.

-Combating abandonment of agricultural land: By determining exact of areas of abandoned land and with soon adoption of the prepared Bylaw it is expected the raised interest for cultivation of abandoned land through free of charge leasing of state agricultural land for biomass and organic production. Support of complementary measures leads to increasing amount of arable land.

Consequently, the project objective to improve the rural development in Serbia through effective management of state and private owned agricultural land should be achieved in mid period.

It is also very important to exchange all the experiences and lessons learned with expert networks through coaching, study tours, internships, and attending of seminars or conferences. The transfer of knowledge is important and a complex issue.

Also, major purpose of a pilot projects is to serve as an example for subsequent projects. This project is certainly a good example.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



Following the experience gained from the lessons learned through the project, this acquired knowledge is a firm basis for further progress.



Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 19-23, 2018



References

Agriculture, M. (2014). *Strategy of agriculture and rural development of Republic of Serbia 2014-2024*. Belgrade: Ministry of Agriculture, Forestry and Water Management.

Andrew Cartwright, Vilma Daugaline, Marija Drobnjaković. (2014). *Report on Abandoned Land in Serbia*. Belgrade: GIZ, Project Rural Development: Effective Land Management.

Geodetic Authority, D. (2015). Memorandum of Understanding regarding the cooperation on Project "Rural Development: Effective Land Management". Belgrade.

Joachim Thomas, Lorenz E. Riegler, Tamara Živković. (2014). *Assessment of the legal framework for agricultural land in the Republic of Serbia and capacity of competent institutions*. Belgrade: GIZ, Project Rural Development: Effective Land Management.

Joachim Thomas, Tamara Živković, Anica Milenković, Lidija Đorđević. (2015). *ANALYSIS AND LEARNED LESSONS from seven pilot projects of land consolidation in Serbia*. Belgrade: GIZ, Project Rural Development: Effective Land Management.

Jose M. Rey Benayas, Ana Martins, Jose M. Nicolau, Jennifer J. Schulz. (2007). Abandonment of agricultural land: an overview of drivers and consequences. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources 2007 2, No. 057*.

Katja Grbić, Svetlana Bačanin. (2017). Delivering land administration services at scale'', Katja Grbić, Svetlana Bačanin, . *World bank conference on land poverty 2017*. Washington DC: The World Bank.

Stevan Marošán, Maja Trajković. (2013). *SELECTION OF MUNICIPALITIES FOR THE PILOT LAND CONSOLIDATION PROJECTS IN SERBIA*. Belgrade: GIZ, Project Rural Development: Effective Land Management.