

# PROGRESSION ROUTE OF LAND CONSOLIDATION IN LATVIA

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## Abstract

The main reason of land fragmentation in Latvia was the restitution of ownership rights to former landowners or their heirs, as well as the land acquisition by other persons in the process of the land reform. As a result the ownership structure was obtained which is not competitive in the aspect of production efficiency. Different instruments as land consolidation, land reallocation and others can be applied for the reduction of land fragmentation. The reduction of land fragmentation should play an essential role in the use of the land corresponding to the spatial development plans which determines perspective land use. Therefore the improvement of the ownership structure should be one of the stages of land use planning.

Key words: land fragmentation, land consolidation, cadastre information system, land use, spatial plan

## Introduction

Land fragmentation is a problem in almost all European countries. The implementation of the land reform in Latvia resulted in fragmented land ownership structure, significantly complicating the use of the land. It is a common problem in rural areas and in some cases in urban areas, too. The distance between land parcels might reach more than ten kilometres. Therefore efficiency of land use is significantly reduced by higher transportation, land cultivation and harvesting costs. The complicated shape of land parcels requires different treatment (Lemmens, 2010). The land market and the public sector are not able to guarantee the appropriate development of efficient land use, as well as solve the consolidation of the fragmented land.

One of the main principles of the Land Policy is to create the best possible conditions for land use and its sustainability. The promotion of the development of territory use is one of the most important responsibilities of the local government because it is one of the ways how to facilitate economic development and to improve land use ensuring its higher productivity. Land consolidation can be one of the most effective means of reducing land fragmentation. In the future land consolidation will become an integral part of land administration to implement the formation of rational real property structure and to adopt new legislative acts accordingly. In the process of solving the problem of land fragmentation it is necessary to involve both personal and public initiative (Lisec, Sevatal, 2012).

The land consolidation concept is rather rarely used in Latvia even for describing the experience in other countries. Until now no land consolidation projects have been implemented in Latvia because it was supposed that the best consolidator is the land market. However, small-size land parcels are not competitive in modern farming situation.

Land reallocation is going to be implemented in some places as a separate process or as part of the land consolidation process. As regards land reallocation, the state is an important actor. Mostly it is the initiative of the government therefore land reallocation occurs when the government decides to redevelop certain areas for the benefit of a wider community. Besides statutory land reallocation, there is also voluntary reallocation. It is a fairly popular tool nowadays which can be particularly successful if the number of participants is not too large (Munro-Faure, Palmer, 2012).

From the above mentioned the conclusion can be made that until now different solutions have been used for the prevention of land fragmentation. It is necessary to identify different suitable instruments for the reduction of land fragmentation to be applied in the case of Latvia and its conditions.

As land consolidation issues have not received sufficient attention in Latvia yet, there is an urgent need to do research, develop respective legislative acts and methodology, as well as incorporate land consolidation in the pattern of land policy.

## Methodology of research and materials

The study was carried out on the basis of the results of the land reform. Statistical data of the Cadastre information system of State Land Service and other sources were used for describing land stock and results of the land reform. Generally, the ratio (percentage) of area registered in the Cadastre in relation to the total area of a municipality as measurement of the land reform success was used. The ratio of the land registered in the Cadastre and returned to former owners or their heirs, other physical and legal persons, the state authorities and municipalities in the frame of the land reform was used.

As a tool for the facilitation of territory use development and the reduction of land fragmentation on the territory of the local municipality, the authors offer a package of measures for the reorganisation of land properties which has to be realised as a long-term activity. These measures are focused on the reduction or elimination of disadvantages of the land reform, real property formation and transactions. This package of measures provides development of the thematic spatial plan as a basis for reorganisation of real property structure of the whole territory of the local municipality or a part of it. The thematic spatial plan is observed as one of the spatial planning documents intended as a plan to be developed on a cartographic base of the Cadastre map. The main objective of the thematic spatial plan is to provide compliance of real properties with the planned land use.

One of the first tasks before developing the thematic spatial plan is to evaluate the territories where there is a necessity to improve the structure of real properties in accordance with their intended purpose and to determine territories where there is a necessity to form monolithic land plots, and where the formation of monolithic land plots is a priority. Land consolidation is not necessary everywhere and not all types of land use require transformation of real properties. There are some places where it even could be prohibited because land fragmentation has not only negative but also a positive side. For instance, some degree of fragmentation is preferable for ecological, scenic and recreational quality (Williamson, Enemark, 2010).

In most cases the thematic spatial plan will be developed for certain agricultural territories having high level of fragmentation of agricultural land, int.al. inter-areas. However, the authors hold the view that the development of such plans is applicable in the cases when fragmentation of real properties exists in territories for industrial construction, business (commercial), forestry and other areas. It means that the thematic spatial plan can be developed both for agricultural territories and for territories of other intended purposes.

The development of the thematic spatial plan for the reduction of land fragmentation provides a framework for the formation of monolithic land plots. A perspective monolithic land plot is a land parcel or a set of land parcels owned by a person together with land parcels owned by other persons, having a common external boundary. So the perspective monolithic land plot may consist of several land parcels (or parts of land parcels) owned by different persons. The perspective monolithic land plot may also contain land parcels of leased land. In the planning process it is necessary to carry out the analysis of perspective use of the territory, existing buildings and infrastructure, drainage systems, etc. (Parsova, Jankava, 2012) The formation of monolithic land plots is based on the information about land parcel boundaries therefore the following principles have to be taken into account:

- The territory of monolithic land plots has to be formed in a compact shape, preferably without inter-areas;
- inter-areas are acceptable only as meadows or forests, or if a residential building is located in the village;
- boundaries of monolithic land plots are preferable to allocate along natural features - rivers, streams, large ditches, as well as state and municipal roads;
- boundaries along rivers, streams and large ditches have to be allocated midline;
- boundaries along roads usually are allocated on the road edge;
- in open areas, particularly in the fields, boundaries of monolithic land plots have to make straight lines without fractures, their turning angles have to be close to  $90^{\circ}$  in order to form fields suitable for mechanized management;
- an external boundary of a monolithic land plot may not correspond with surveyed or allocated boundaries of land parcels, but, if that is possible, existing boundaries should be taken into account.

The following priorities have to be taken into account when designing monolithic land plots:

- Priority 1 – a landowner lives in the building located on the land parcel and uses the land according to planned perspective land use;
- Priority 2 – a landowner does not live in the building located on the land parcel but uses the land according to planned perspective land use.

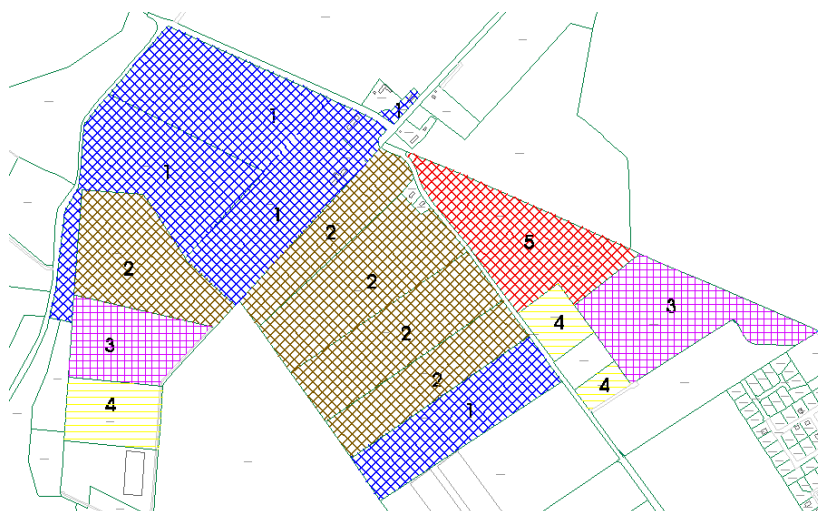
A landowner using the land according to planned perspective land use always has priority. In such a case the perspective monolithic land plot has to be developed near the farmstead.

The object of the research is land stock of Latvia and the structure of real properties created as a result of the land reform.

## Discussions and results

**Characteristics of the structure of land properties after the land reform.** The land reform was one of the first steps of the agrarian reform after the restoration of independence. The objective of the land reform was to reorganise the legal, social and economic relationships of land property and land use through its gradual privatisation (Zemes reforma – atslēga..., 2012). However, in spite of the objectives of the land reform in Latvia, the property structure established in Latvia does not comply with effective land use and land development requirements. Fragmentation often is the result of the system of inheritance where the land is divided among heirs resulting in many parcels of land (Parsova, Gurskiene, 2012). During the land reform former owners and their heirs, as well as other persons could apply for acquisition of the land in ownership. If the land belonged to one former owner often three or more heirs applied for restitution of ownership rights. In such cases the land was divided into the corresponding parts and assigned for ownership.

After more than 50 years of the Soviet period, the situation in land use had changed substantially. The former boundaries remained neither in the documents and nor in the terrain. During the land reform former owners frequently requested the restoration of land ownership, land use and boundary allocation according to the rules before the year of 1940 despite the current situation in land use (Dambite, Parsova, 2010). As a result the land properties were created where it was complicated to use the land for its intended purposes, sometimes persons owned only the land without buildings and other means of production on it thus being unable to manage the land (Sudoniene, Atkocevičiene, 2011). In some cases the previous activities of land owners have not been relevant to agriculture. The analysis of the Cadastral map shows that land parcels of one land property were located as inter-areas, often wide apart (Jansone, 2008) (Figure 1).



**Fig. 1.** Territorial location of land parcels included in composition of land properties

Table 1 shows the breakdown of land properties in compliance with the number of land parcels included in the composition of land property.

The majority of real properties (90%) in rural areas consist of one or two land parcels. However, large numbers of land properties consist of three and more land parcels. The location of land parcels and their size do not satisfy all requirements of rational and efficient land use. The mentioned examples and information confirm that real property structure is a problem. Its solution cannot be delegated just to the free market; the enforcement of administrative and financial instruments is necessary.

**Table 1**

Land parcels included in composition of land properties in rural areas (on 01.12.2013)

| Number of land parcels in one land property | Number of land properties | % of total number of land properties |
|---|---------------------------|--------------------------------------|
| 1   | 394,599                   | 75                                   |
| 2   | 76,837                    | 15                                   |
| 3   | 28,008                    | 5                                    |
| 4   | 11,594                    | 5                                    |

|        |       |   |
|--------|-------|---|
| 5      | 5,389 | 1 |
| 6-10   | 5,931 | 1 |
| 11-20  | 1,180 | - |
| 21-100 | 411   | - |
| >100   | 8     | - |

One of the indicators characterising the structure of land properties, is average acreage of land parcels. According to the data of the Cadastre information system, the average area of a land parcel owned by natural persons in rural areas is 7.47 ha, int.al. agricultural land - 4.52 ha. Land parcels owned by legal persons are slightly larger – the average area is 14.33 ha, int.al. agricultural land - 8.44 ha (Platonova, Setkovska, 2011) (Table 2).

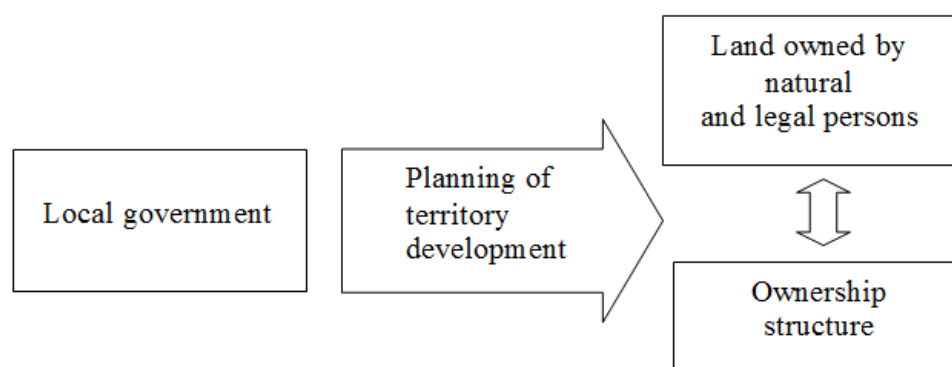
**Table 2**

Average area of land parcels

|   | Average area of  |                                  |
|---|------------------|----------------------------------|
|   | land parcels, ha | agricultural land per parcel, ha |
| In ownership and use of natural persons | 7.47             | 4.52                             |
| In ownership and use of legal persons   | 14.33            | 8.44                             |

The analysis of the data of the Central Statistical Bureau in 2007 with regard to the structure of land properties showed that its average area was 25.5 ha, int.al. agricultural land - 17.0 ha. In comparison with 2001, the average area of land properties had increased approximately by 4 ha. However, the number of land properties, the area of which exceeded 10 ha, made more than 60% of the total number of land properties. During last 10 years this trend shows an increment of small-size properties. Analyzing this information in connection with the information on the average size of land parcels, it can be concluded that the location of land parcels and their size does not cover all requirements of rational and efficient land use and protection.

**Land use planning and property structure.** In 2008 the government of Latvia approved Land Policy Guidelines which state that the objective of land policy is to ensure the sustainable use of land as a unique natural resource. Concerning the land as a resource and its use, one of the preconditions for land use sustainability is spatial planning, including the development of land use plans at the municipal level. Local governments play one of the main roles in realisation of land policy and land management. Planning of territory development by local governments influences the use of the land owned by natural and legal persons located in the particular administrative territory to a great extent. They perform land monitoring as well as ensure land management of the land owned by the local government and the reserve land. Facilitation of development of territory utilisation, including land consolidation, is the most important responsibility of the local government because it is one of the ways to promote economic development on territory of the local municipality and to improve and rationalise land use achieving its higher efficiency and providing more land for public purposes. To ensure sustainable territory development and realisation of planned land use, it is necessary to establish an appropriate structure of land properties. The plan of territory development sets requirements for the size of land parcels, their location, compactness, etc. (Figure 2).



**Fig. 2.** The role of local government in land management.

The spatial plan is a planning document which identifies possibilities, directions and limitations of the development of the local municipality and prospective land utilisation, including the development of all kind of construction, inter alia construction of transport and utility infrastructure. These plans are relatively detailed. They reflect the present and planned (permitted) utilisation of the territory and the restrictions on the utilisation of such a territory; besides, planned use in long-term (12 years) perspective for each land parcel is determined. The spatial plan is approved by the binding regulations of the local government and it is the legal basis on which the decision regarding the use of each specific land property is made (Paršova, Kāpostiņš, Giluča, 2012).

Land fragmentation from the aspect of land use causes significant inconvenience in the areas where the primary use is agriculture; in fact, land fragmentation is most commonly encountered exactly in agricultural territories. Land fragmentation encumbers the organization of agricultural activities and increases the cost of production (Paršova, Kāpostiņš, 2012).

Land property structure has an essential importance in urban areas, too. For example, the spatial plan envisages the construction of an industrial park, but a large number of small-size land properties are located in this territory. In such a case any development projects may be realised only if the use of land properties agrees with the plans for this territory.

**Tools for reducing land fragmentation.** With regard to activities designed to reduce land fragmentation, the following three questions should be answered: *whether, when and how?* The question “*whether*” has been discussed in the text above describing the results of the land reform and ownership structure, *int.al.*, the size of land parcels and farms. The situation can be characterised not only by the size of land property. Land consolidation is an integral part of rural development, however, it has often been neglected. During last twenty years the situation in different parts of Latvia has changed substantially, and indications of degradation of socio-economic environment in rural areas can be observed. If, at the beginning of the land reform, prospective landowners were full of enthusiasm, the market economy disappointed many of them and not all of them were able to survive in the competition. As a result, people moved from rural regions and territories to cities and towns, or even migrated to other countries. Therefore relatively large land areas are abandoned. The data show that in 2010-2011 approximately 16% of agricultural land was not used and gradually became overgrown. This is another factor providing the answer to the question why we have to look for solutions.

We have to answer the question “*how*”. The answer to this question will give an answer to the question “*when*”. From the above mentioned the conclusion can be made that different solutions have been used for the prevention of land fragmentation up to now. But there is a question, whether traditional solutions that work well and are implemented in one country, are automatically transferable to any other country hoping that these solutions will be applicable and effective there. However, it is clear that each country has its own characteristics and differences from other countries circumstances and traditions, as well as the framework of real estate legislation. Therefore, as regards the case of Latvia, it is necessary to look for different suitable instruments for the reducing land fragmentation.

The world practice shows that a range of different tools are used to prevent land fragmentation. One of the most well known instruments is land consolidation. In general, land consolidation is a set of procedures that enhance the quality of life and encourage non-agriculture activities as well as improve the efficiency of traditional farming. In previous years the main emphasis in land management was on the land reform, while the land consolidation concept was rather rarely used even for describing the experience of other countries. The situation in Latvia differs from that in some regions of Central and Eastern Europe where land fragmentation characterizes farms consisting of up to 15 small land units, some less than one hectare in size. Property structure in rural areas can be described as uneconomic farming.

**Limitation of further land fragmentation.** Improvement of the property structure may be realised by decreasing land fragmentation, at least by preventing its further spread, especially in the areas where land fragmentation has a significant impact on the efficiency of land-use. To improve the situation, in 2010 the development of the Law on Land Management was started aimed to promote sustainable land administration providing efficient and effective monitoring of the use and protection of the land. To achieve these objectives, restrictions were imposed on further land fragmentation, as well as the transformation of agricultural land into non-agricultural land on the territory recognized as agricultural area of national importance or where the value of the land quality is more than 50 points (Baumane, 2009). For instance, if a land parcel is located in an agricultural area of national importance and its main economic activity is agriculture, it is not permitted to form land parcels with the size less than 10

ha. There are exceptions, for example, a land parcel has a farmstead. The remaining part of a land parcel, if its size is less than 10 ha, has to be joined to the neighbouring land parcel.

Restrictions of land fragmentation also are envisaged in ongoing physical planning process by adoption of the regulations on land use and construction by the local municipality, as well as mandatory binding regulations for all property owners. In addition, the Cabinet of Ministers in nearest future will adopt “General regulations on physical planning, land use and construction” for municipalities in order to introduce a common practice of limitations of land fragmentation. This document will define that the minimum area of a newly formed land parcel in rural areas is 2 hectares. It means that local municipalities will have the right to set a higher minimum area of a newly formed land parcel in order to limit further land fragmentation. The above mentioned is related to the measures of restricting further fragmentation of the land in areas where it is not desirable. On the other hand, land fragmentation features not only a negative side but also a positive side. For instance, some degree of fragmentation is preferable for ecological, scenic and recreational purposes (Parsova, Kapostins, 2011).

**Perspective of land consolidation.** What should be done in the area, where territory development plans envisage, for example, agricultural production, but the land property structure is completely inappropriate for it? To solve such situations, the project of the Law on Land Management includes a general framework for land consolidation. Land consolidation is defined as the set of measures which include rearrangement of land parcel boundaries and respective ownership rights, as well as leasehold. The above mentioned project states that the land consolidation process should be based on the following principles:

- principle of voluntary participation - land owners participate in land consolidation process voluntarily;
- principle of effectiveness and profitability – properties, created in land consolidation process, guarantee more efficient and rational use of land and increases improvement of environment;
- principle of equivalence – exchange of land parcels, involved in land consolidation process take place taking into consideration proportionality of real property value;
- principle of fairness - for ensuring of land consolidation process the land can be expropriated on contractual basis and for fair compensation;
- principle of respecting of public interest – individual interests are balanced with public interest in land consolidation process as much as possible;
- principle of participation and openness - land consolidation process provides participation of people and harmonizes interests of landowners and society.

**Procedure for land consolidation.** Considering the above mentioned that one of the principles of land consolidation is voluntary participation, results greatly depend on involvement of landowners and their activity. The authors consider that, before starting the land consolidation process, it is necessary to carry out a survey among landowners. Landowners’ viewpoints are very important in the current situation to clarify reasons of inefficient use of land, intentions of landowners in conservation of their ownership or dealings with the land, motivating factors regarding participating in land consolidation process or in avoiding it. The authors consider that the survey of landowners might also serve as a promotion activity of land consolidation and information of landowners. The previous experience shows that knowledge and information regarding land consolidation is very insufficient.

The project of the Law on Land Management provides that land consolidation may be initiated by:

- at least two landowners whose land is located in particular administrative territory;
- the state authority or state enterprise, if land consolidation is necessary for development of objects of national interest;
- a local municipality at request of more than a half of landowners or on its own initiative.

The local municipality evaluates local spatial planning documents and other circumstances and makes either a positive or a negative decision on the development of land consolidation project.

However, in order to evaluate documents and make an informed decision on the development of land consolidation project or its rejection, the authors consider that the development of the thematic spatial plan as a basis for reorganisation of real property structure for the whole territory of the local municipality or a part of it is necessary as one stage of spatial planning. The thematic spatial plan is one of the spatial planning documents intended to be developed on the cartographic base of the Cadastre map. The main objective of the thematic spatial plan is to provide compliance of real properties with the planned perspective land use because land consolidation is not necessary everywhere and not all types of land use require transformation of real properties; the elimination of

land fragmentation is not an end in itself. It has to go hand in hand with the spatial planning. The thematic spatial plan can be developed both for agricultural and territories of other intended purposes. The local municipality prepares conditions or terms of reference during the decision making process taking into account land consolidation financial issues and if existing spatial planning documents set achievable goals. At the same time document should describe all the properties within the affected area, including important environmental areas such sites of scientific interest.

Land consolidation process is provided by the local municipality within its competence, and the State Land Service carries out methodological management of land consolidation process.

**Land consolidation financing.** Land consolidation is relatively expensive and time-consuming process. Expenses of land consolidation projects are high including not only the land surveying and project development costs, but also expenses related to improvement of rural infrastructure taking into account the new situation concerning the shape and areas of newly formed land parcels. Land consolidation results to a great extent depend on financial resources to support this process. During the last decade frequent debates took place regarding the questions: who is responsible for what and who is going to finance land consolidation. According to the practice of other countries, land consolidation projects can be realised if this process is financially supported by the state or using other means. In the frame of the Rural Development Programme 2007-2013 the EU support for the activities of land consolidation were envisaged. There are some countries where land consolidation is partly financed by the EU funds (Lithuania) or other donors (Armenia). There are countries (Finland, Sweden) where land consolidation is partly financed by the state. But how to deal with the issue of land consolidation in the circumstances where the state does not have necessary resources? So far, in Latvia financial support as an instrument for improvement of ownership structure has been assigned neither by the state nor by other funds. Wherewith it is necessary to look for different facilities for reducing land fragmentation, which would not be too complicated, too lengthy and would be usable for conditions of Latvia, specially keeping in mind that the success in one country does not guarantee the success in another.

If the state or local municipalities cannot directly support implementation of the land consolidation process in form of grants, one of the options could be involvement of landowners in land consolidation measures using indirect support tools, for example, exemptions from duties and taxes, which are payable for transfer of ownership. In Latvia real property deals require payments of the state fee of 2% of higher value - cadastral value or transaction price. Another options could be exemption of landowners from the property tax for 3 - 5 years after the completion of land consolidation process. Such initiatives could create a friendly climate for introduction of land consolidation process.

### **Conclusions and proposals**

The aim defined in the land policy is to create best possible conditions for land use and its sustainability. However, it is clear that the long time period will be necessary for correction of failures in land use and further ensuring of sustainable land use. The improvement of the land property should be conducted in close interface with the spatial planning development and land administration process. Land consolidation could be considered as one of the instruments of the implementation of spatial planning. Consolidated land properties corresponding to the intended purpose defined in the spatial plan and property structure appropriate to planned land use can be successfully used for realisation of production-oriented projects and increase of production efficiency.

Results and benefits of real property consolidation can be formulated as follows:

- property consolidation reduces and eliminates disadvantages of the land reform, real property formation, real property transactions, and fragmentation of real property structure;
- development and realisation of thematic spatial plans can ensure the compliance of real properties with requirements of rational and efficient land use and create circumstances for the best possible land use and sustainability forming the basis for regional development;
- property consolidation establishes the frame for more effective support for the purchase of land for Latvian farmers and promotes reduction of unused territories.

The results of land consolidation, to great extent, are dependent on cooperation of many institutions, but the determinant factor is interest of landowners and their ability to see the benefits of land consolidation. Therefore it is important to develop appropriate financial instruments facilitating this process.



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