#### IMPROVEMENT OF REAL PROPERTY STRUCTURE IN LATVIA

Velta Parsova\*, Ilze Jankava\*, Anita Sidelska\*

\*Latvia University of Agriculture, Liela street 2, Jelgava, LV-3001, Latvia E-mail: <a href="mailto:velta@parsova.lv">velta@parsova.lv</a>, <a href="mailto:ilzejan@inbox.lv">ilzejan@inbox.lv</a>, <a href="mailto:anitta.sidelska@latvenergo.lv">anita.sidelska@latvenergo.lv</a>

#### Abstract

As a result of land reform and various transactions in Latvia there was created a fragmented real property structure. If land fragmentation in other countries occurred in long period of time, in Latvia it was established in frame of land reform, which restored ownership rights to former landowners or their heirs, as well as land was assigned as ownership to other persons. During transition from planned economy to market economy there was obtained an ownership structure, which in the aspect of production efficiency is not competitive in market situation. An effective tool to reduce land fragmentation can be used land consolidation, land reallotment and other instruments. Elimination of land fragmentation can to facilitate use of the land according to the spatial development plans, which determines perspective land use. There is a lack of legislation in Latvia that determines implementation of land consolidation process. Therefore improvement of ownership structure should be one of the stages of land use planning.

Keywords: land consolidation, land fragmentation, land parcel, land property, monolythic plot

#### 1. INTRODUCTION

Land fragmentation is the problem in almost all European countries, and Latvia is not an exception. It is common in rural areas and in some cases it is a problem in urban areas, too. Implementing land reform in Latvia has been created fragmented land ownership structure, which significantly complicates the use of land. The distance between land parcels in some cases makes more than ten kilometers. Wherewith efficiency of land use is significantly reduced by higher transport, land cultivation and harvesting costs. Complicated shape of land parcels requires different treatment.

The aim defined in ground rules of land policy is to create the best possible conditions for land use and its sustainability. Facilitation the development of territory use is one of the most important responsibilities of local government because it is one of the ways, how to facilitate economic development and to rationalize land use at the same time ensuring its higher productivity. Free land market and public sector can not guarantee the appropriate development of efficient land use, so in this process necessary to involve both of personal and public initiative.

Land consolidation can be one of the most effective means of reducing of land fragmentation. To realize formation of rational real property structure and adopting new legislative acts, in the future land consolidation will be integral part of land administration. However, it is clear - investment of enormous resources for long period of time will be necessary for the correction of failures in land use and further ensuring of sustainable land use.

### 2. MATERIAL AND METHOD

In previous years the main emphasis in land management was the land reform, while the land consolidation concept is rather rarely used and even for describing an experience in other countries. Until now in Latvia has not been implemented any land consolidation project, because it was supposed that the best consolidator is a free market. However, as it shows information, small-size land parcels are not competitive in modern farming situation.

In some places as separate process or as part of land consolidation process is going to be implemented land reallocation. In the land reallocation an important actor is the state, because mostly it is an initiative of the state and land reallocation occurs when the State decides to redevelop an area for the benefit of the wider community. Besides statutory land reallocation, there

is also voluntary reallocation. This is a fairly popular tool nowadays, which can be particularly successful if the number of participants is not too large (Van Den Brink, 2004).

From the above mentioned is made conclusion that for the prevention of land fragmentation till now have been used different solutions. It is necessary to look for different suitable instruments for the reducing of land fragmentation, applied for Latvian case and conditions.

As a tool for facilitation of territory use development and reduction of land fragmentation on the territory of local municipality authors offer a complex of measures for the reorganisation of land properties, which have to be realised as long-term activity. These measures are focused on reduction or elimination of disadvantages of land reform, real property formation transactions.

This package of measures provides development of Thematic spatial plan as a basis for reorganisation of real property structure for whole territory of local municipality or part of it. Thematic spatial plan is observed as one of the spatial planning documents, which is intended as a plan to be developed on the cartographic base of Cadastre map. The main objective of Thematic spatial plan is to provide compliance of real properties to planned perspective land use.

One of the first tasks before development of Thematic spatial plan is to evaluate territories where is necessary to improve the structure of real properties in accordance with their intended purposes and to determine territories where is necessary to form monolytic land plot and formation of monolytic land plot is a priority. Land consolidation is necessary not 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 positive side. For instance for ecological, scenic and recreational quality, some degree of fragmentation is preferable (Van Dijk, 2004).

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

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

- territory of monolythic land plot have to be formed in compact shape, preferably without interareas:
- inter-areas are acceptable only as meadows or forests, or if the residential building is located in the village;
- boundaries of monolythic land plot preferable to allocate along with natural features rivers, streams, large ditches, state and municipal roads;
- boundary along rivers, streams and large ditches have to be allocated midline;
- boundaries along roads usually are allocated on road edge;
- in open areas, particularly in the fields, boundaries of monolythic land plot have to make straight lines without fractures, their turning angles have to be close to 90° in order to to form fields suitable for mechanized management;
- external boundary of monolythic 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.

Designing monolythic land plots following priorities have to be taken into account:

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

Preference always have landowners who use their land according to planned perspective land use. In these cases the perspective monolythic land plot have to be developed near farmstead.

# 3. RESULTS AND DISCUSSIONS

The structure of land properties after land reform. Main objective of land reform was the reorganisation of legal, social and economic relationships concerning the land implementing land reform. However, a property structure established in Latvia, do not comply with the effective land use and land development requirements. There often were situations when three or more heirs applied for restitution of ownership rights, if the land belonged to one former owner. There were requests from former owners to allocate land parcel boundaries exactly in the historic place and shape (Dambite, Parsova, 2010). The result is the fragmentation - many scattered land parcels (UNECE/HBP/140, 2005). As a result the land properties have been created, where use of the land is complicated for its intended purposes, as well as persons owned only land without buildings and other means of production are not able to manage the land. Often activities of landowners were not relevant to agriculture and therefore they did not have adequate knowledge and skills in land use.

One of the indicators characterising the structure of land properties, is average acreage of land parcels. According to the data of State Land Service, the average area of land parcel owned by natural persons in rural area 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.

The number of land properties, area of which exceed 10 ha, makes more than 60% of the total number of land properties. During the last 10 years this trend shows an increment of small-size properties. Thereby it can be concluded that free land market is not the most effective land consolidation tool.

Analysis of Cadastral map shows that land parcels of one land property are located as inter-areas, often wide apart (Figure 1).

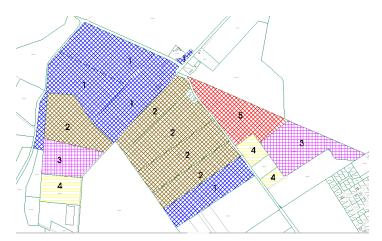


Figure 1. Territorial location of land parcels included in composition of land properties

Table 1 shows breakdown of land properties in compliance with the number of land parcels included in composition of land property (on 01.01.2012).

Majority of real properties (90%) in rural area consist of one or two land parcels. However, large numbers of land properties consist of three and more land parcels.

Location of land parcels and their size does not cover all requirements of rational and efficient land use. Mentioned examples and information confirm that real property structure is a problem. Solution of it cannot be delegated just to the free market, but enforcement of administrative and financial instruments is necessary.

Table 1. Land parcels included in composition of land properties in rural area

Number of land parcels in one land	Number of land properties	% of total number of land
property		properties
1	394599	75
2	76837	15
3	28008	5
4	11594	5
5	5389	1
6-10	5931	1
11-20	1180	-
21-100	411	-
>100	8	-

Land use planning and property structure. In 2008 the Government of Republic of Latvia approved Land Policy Guidelines where the objective of land policy is stated to ensure the sustainable use of land as a unique natural resource. Looking to the land as a resource and its use, one of the preconditions for land use sustainability is the spatial planning, including the development of land use plans at the municipal level. Local governments have one of the main roles in realisation of land policy and land management. Performing planning of territory development, local governments to a great extent make influence to use of the land owned by natural and legal persons located in specific administrative territory. They perform land monitoring as well as ensure a land management owned by local government and reserve land.

Facilitation of development of territory utilisation, including land consolidation, is the most important responsibility of local government because it is one of the ways to promote economic development on territory of local municipality and to improve and rationalise land use achieving higher its return and providing the land for public purposes. To ensure in the spatial plan provided 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 establishes requirements for size of land parcels, their location, compactness, etc.

In the areas where the primary use is agriculture, fragmentation of the land from the aspect of land use for landowners causes inconveniences to a high degree and exactly in the agricultural territories fragmentation of the land is most common. Land fragmentation encumbers the organization of agricultural activities and increases the cost of production.

Land property structure has essential importance in urban areas, too. For example, the spatial plan determines to develop erection of industrial park, but in this territory are located a large number of small-size land properties. It is clear that in this case within this territory any development projects may be realised only in case if the use of land properties will meet purposes for which this territory is intended to be developed.

Instruments for improvement of property structure. Land consolidation is relatively financially and time-consuming process. Expenses of land consolidation projects are high because it include an expenses not only for the land surveying and development of project, but also expenses related to improvement of rural infrastructure taking into account the new situation concerning shape and areas of newly formed land parcels. Land consolidation results to a great extent depend on financial resources to support this process. The land consolidation projects can be realised if this process is financially supported by the state or using other means. In the frame of Rural Development Programme 2007-2013 of EU support for the activities of land consolidation were envisaged. There are some countries where land consolidation is partly financed by EU funds (Lithuania) or other

donors (Armenia), and some countries (Finland, Sweden) where land consolidation is partly financed by the state. In Latvia financial support as instrument for improvement of ownership structure has been assigned neither by the state, nor by other funds. Wherewith 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.

One of the most well-known instruments to prevent land fragmentation 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 basic farming (UNECE/HBP/140, 2005). In order to ensure sustainable development of the territory and realisation of planned territory use it is necessary to establish an appropriate land property structure. Land use development plan establishes requirements for property structure - size of land parcels, their location, compactness, etc.

Implementation of Thematic spatial plan and formation of monolythic land plots have to be realised gradually. On the first stage is necessary to recognize the main land parcel, which will serve as base for formation of monolithic land plot. On the next stage external boundary of monolythic land plot – which land parcels will be incorporated into perspective monolythic land plot. External boundary of monolithic land plot have to be designed taking into account existing infrastructure, drainage systems and other natural elements of the situation. One of the objectives of formation of monolythic land plot is to design land parcel with compact territory and area, which comply with intended purpose and use of which is limited by natural and artificial obstacles as little as possible (Figure 2).

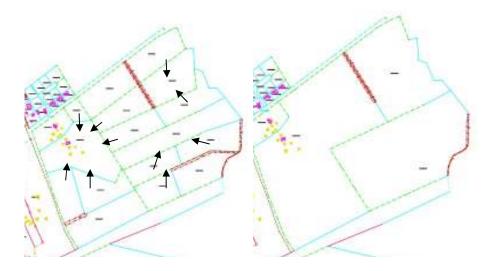


Figure 2. Land use before and after realisation of thematic spatial plan

Instruments for the implementation of thematic spatial plan and formation of monolythic land plots are based on voluntary land transactions or voluntary land exchange. If the subject of main land parcel fails to agree on voluntary land transaction, in this case confirming Thematic spatial plan could be established pre-emption or redemption rights, as well as priority to lease the land included in monolythic land plot.

Essential part of spatial development planning process is involvement of the public in it. Landowners have the rights and possibilities to participate in the planning process. Development of Thematic spatial plans is component of territorial planning process, wherewith involvement of landowners in formation of monolithic land plots is very important.

#### 4. CONCLUSIONS

The aim defined in ground rules of land policy is to create possible best conditions for land use and its sustainability. However, it is clear - for correction of failures in land use and further ensuring of sustainable land use the investment of long period of time will be necessary. Thematic spatial plan, as well as realisation of all spatial planning documents is long-term activity.

Consolidated land properties, which correspond to the intended purpose defined in spatial plan and what forms monolithic land plot 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:

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

Improvement of property structure may be realised by decreasing of land fragmentation, but it is also important to prevent its further spread, especially in areas where land fragmentation has significant impact on efficiency of land use. To limit further land fragmentation in areas, which are recognized as agricultural areas of national importance, the regulations of Government has limited subdivision of land parcels. For instance, if land parcel is located in agricultural area of national importance and the main economic activity of which is agriculture, is not permitted to form land parcels which size is less than 10 ha. Exceptions are the cases where is subdivided land parcel necessary for maintenance of farmstead. Remaining part of land parcel if its size is less than 10 ha, have to be joined to neighbouring land parcel.

## 5. REFERENCES

- Dambite D, Parsova V (2010) Arbitration of Land Boundary Disputes in Rural Area of Latvia. In: Proceedings of the International Scientific Conference "Baltic Surveying 2010", Kaunas, pp 79 84.
- Паршова В, Капостиньш Э (2012) Возможные решения уменьшения раздробленности земли в Латвии. В кн: Материалы научно методической конференции по вопросам землеустройства "Baltic Surveying 2012", Тарту, 52 57с.
- United Nations ECE/HBP/140 (2005) Land administration in the UNECE region. Development trends and main principles. UNECE, New York and Geneva.
- Van Den Brink A (2004) Land Consolidation and the Emergence of the Metropolitan Landscape. In: FIG Commission 7, Annual Meeting 2004, Symposium on Modern Land Consolidation, Clermont-Ferrand, <a href="http://www.fig.net/commission7/france">http://www.fig.net/commission7/france</a> 2004/papers symp/ts 03 vandenbrink.pdf.
- Van Dijk T (2004) Land consolidation as Central Europe's panacea reassessed. In: FIG Commission 7, Annual Meeting 2004, Symposium on Modern Land Consolidation, Clermont-Ferrand, <a href="http://www.fig.net/commission7/france-2004/papers-symp/ts-01\_vandijk.pdf">http://www.fig.net/commission7/france-2004/papers-symp/ts-01\_vandijk.pdf</a>.