

Does land consolidation fit everywhere?

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

SUMMARY

If land fragmentation in other countries occurred in long period of time, for example, the land within the family was divided between several heirs, then the main reason of land fragmentation in Latvia was land reform, which restituted ownership rights to former land owners or their heirs, as well as land was assigned as ownership to other persons. During transition from planned economy to market economy we have obtained an ownership structure, which in the aspect of production efficiency is not competitive in market situation. For the reduction of land fragmentation can be applied different instruments like land consolidation land reallocation and other. Elimination of land fragmentation is not end in itself, but it have to facilitate use of the land according to the spatial development plans, which determines perspective land use. Thereby the improvement of ownership structure should be one of the stages of land use planning.

SUMMARY (in Latvian)

Ja citās valstīs zemes fragmentācija radās daudzu gadu laikā, piemēram, dzimtas ietvaros to sadalot vairākiem mantiniekiem, tad Latvijā galvenais zemes fragmentācijas cēlonis bija zemes reforma, kuras rezultātā zemes tika atgriezta īpašumā bijušajiem zemes īpašniekiem vai to mantiniekiem, kā arī zeme tika piešķirta īpašumā citām personām. Pārejot no plānveida ekonomikas uz tirgus ekonomiku esam ieguvuši īpašumu struktūru, kas tirgus apstākļos nav konkurētspējīga no ražošanas efektivitātes viedokļa.

Zemes fragmentācijas samazināšanai var tikt piemēroti dažādi instrumenti - zemes konsolidācija, zemes pārdalīšana un citi. Zemes fragmentācijas likvidēšanai nav jābūt pašmērķim, bet tam ir jāveicina zemes izmantošana atbilstoši teritorijas attīstības plānojumam, kurā tiek noteikta zemes perspektīvā izmantošana. Līdz ar to zeme īpašumu struktūras pilnveidošanai jābūt, kā vienam no zemes izmantošanas un teritorijas attīstības plānošanas etapiem.

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1. INTRODUCTION

We live in an imperfect world where neither free market nor public sector in itself can guarantee the appropriate development of efficient land use, so in this process necessary to involve both of personal and public initiative. Land fragmentation is the problem in almost all European countries, and Latvia is not an exception. This problem can be applied to both the rural areas and in some cases it is a problem in urban areas. Consequently, it is as relevant to the question of how to solve the problem of land fragmentation.

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. 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 - 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. THE STRUCTURE OF LAND PROPERTIES AFTER LAND REFORM

Land reform was one of the first steps in Latvia 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. However, in spite of the objectives of land reform in Latvia is established a property structure which do not comply with the effective land use and land development requirements.

Fragmentation often is the result of a system of inheritance where the land is divided between heirs, resulting either many scattered parcels of land (UNECE/HBP/140, 2005). During the land reform both former owners and their heirs, and other persons could apply for acquisition of the land in ownership. There often were situations when three or more heirs applied for restitution of ownership rights, if the land belonged to one former owner. In such cases the land was divided in corresponding parts and assigned for ownership.

Land consolidation was realized in Soviet period too, when land was owned exclusively by the state. Carrying out the land amelioration was formed large continuous blocks of arable land. If in this territory were located farmsteads, in most cases they were demolished and people moved to the villages.

Since nationalization of private properties, the situation after more than 50 years the situation in land use had changed substantially. Former boundaries are not remained in the documents and in the terrain. You must either extract the old property with its historical borders from the present complex, or provide a similar unit or if the owners so prefers, compensate him the value of land (Larsson, 1997). During the land reform frequently were requests from former owners for the restoration of land ownership, land use and boundary allocation exactly in the

historic range as that were before 1940 despite the current situation in land use (Dambite, Parsova, 2010). 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 cannot be able to manage the land. Often there were cases that previous activities of landowners were not relevant to agriculture and therefore they did not have adequate knowledge and skills in land use (Fig.1).



Fig.1. Shape of land parcels in Ozolnieki municipality

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.

	Number of land parcels	Total area, ha	Area of agricultural land, ha	Average area of land parcels, ha	Average area of agricultural land per parcel, ha
In ownership and use of natural persons	425694	3179541	1922572	7,47	4,52
In ownership and use of legal persons	35832	513376	302395	14,33	8.44

Fig.2. Average area of land parcels. Source: State Land Service of the Republic of Latvia

Analyse of the structure of land properties according to their average area, data of Central Statistical Bureau in 2007 showed that average is 25.5 ha, int.al. agricultural land - 17.0 ha. In comparison with 2001, average area of land properties has increased approximately by 4 ha. However, the number of land properties, area of which exceed 10 ha, makes more than 60% of the total number of land properties. During 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.

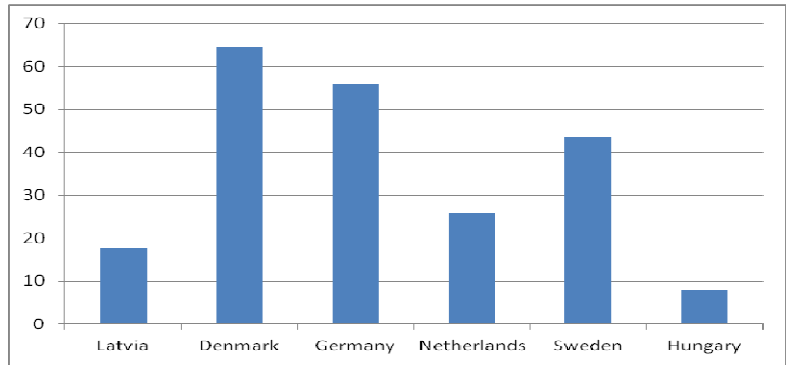


Fig.3. Comparison of average area of agricultural land. Source: Eurostat

Analysis of data of Cadastral information system shows that land parcels of one land property are located as inter-areas, often wide apart. Fig.4 shows breakdown of land properties in compliance with the number of land parcels included in composition of land property. 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.

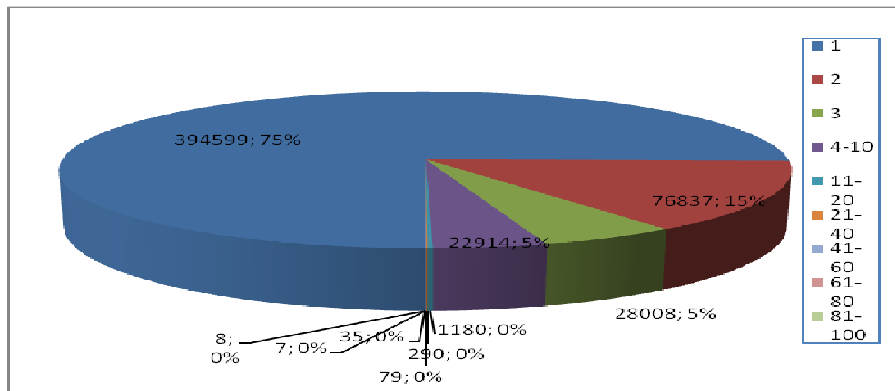


Fig.4. Number of land parcels included in composition of land properties

Looking to this information in connection with the information on average size of land parcels, can be concluded that location of land parcels and their size does not cover all requirements of rational and efficient land use and protection. As an example is shown a farm, total area of which is 123.3 ha, but what consists from several land parcels. The distance between them is more than 20 km (Fig.4).

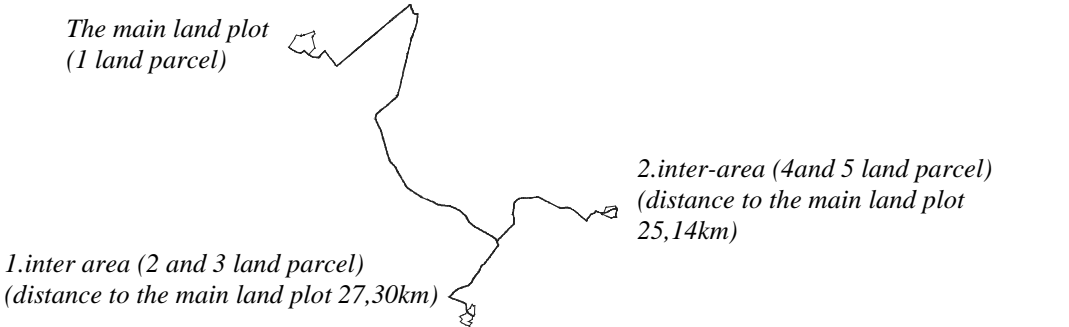


Fig. 5. Scheme of territorial location of the farm (D.Platonova, 2011)

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.

3. 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 on 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.

The key role of spatial planning is to promote a more rational arrangement of activities and to reconcile competing policy goals (Economic Commission for Europe, 2008). Spatial plan is the planning document where are identified possibilities, directions and limitations of the development of local municipality and perspective land utilisation, including development of all kind of construction, inter alia the 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 territory, and planned use in long-term (12 years) perspective for every land parcel is determined. The local government spatial plan is approved as binding rules and has the power of legislative act what is a base for the decision about use of specific land property.

Local governments have one of the main roles in realisation of land policy and land management (Fig.6). 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.

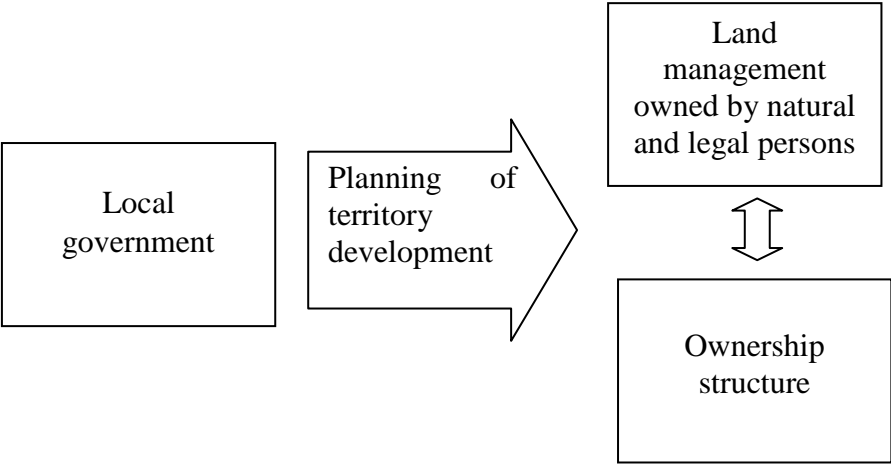


Fig.6. The role of local government in land management

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 land properties structure. It can be said that 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. Example (Fig.1) shows, that in the local municipality Ozolnieki where land is suitable for agricultural use and spatial plan prescribes to use it for mentioned purpose, the structure of land properties – size and shape of land parcels - is completely inappropriate. 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.

4. INSTRUMENTS FOR IMPROVEMENT OF PROPERTY STRUCTURE

4.1. Land consolidation financing

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. During the last decade occurred frequent debates about questions: who is responsible for what and who is going to finance land consolidation. As shows the practice of other countries, in any case 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). 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 circumstances where it does not have necessary resources? So far, 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, specially keeping in mind that success in one country does not guarantee success in another.

4.2. Tools for reducing land fragmentation.

In different countries are used different tools 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 basic farming (UNECE/HBP/140, 2005). 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 (A. 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. But there rises a question, whether the traditional solutions that work well and are implemented in one country, are automatically transferable to any other country in the hope that this solutions will be applicable and will be effective. However, it is clear that each country has its own characteristic and different from other countries circumstances and traditions, different framework real estate legislation. What means that is necessary to look for different suitable instruments for the reducing of land fragmentation, applied for Latvian case and conditions.

With regard to action with the objective to reduce land fragmentation, need to be answered: whether, when and how (T. Van Dijk, 2004). To the question “whether” - more or less has been answered in previous chapters, describing the results of land reform and an ownership structure, int.al. area of land parcels and farms. The situation can be characterised not only by the area of land property. Rural development goes hand in hand with land consolidation, but has often been neglected until problems become endemic (R.Bullard, 2007). Twenty years after restoration of independence a situation in the different parts of Latvia has changed substantially, and is observed the indications of degradation of socio-economic environment in rural areas. If initially, at the beginning of land reform, prospective landowners were full of enthusiasm, the market economy disappointed many of them and not all are able to overcome a competition. As a result, people are moving from rural regions and territories to cities and towns, or even to other countries. Thereby relatively large land areas are abandoned. Data show that in 2010-2011 approximately 16% of agricultural land is not used and gradually become overgrown. This is another factor providing an answer to the question why we have to look for solutions.

We have to answer the question “how”. Having the answer to this question will be clear an answer to the question “when”.

As already mentioned, 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.

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 monolythic land plot and formation of monolythic 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 (T.Van Dijk, 2004).

Studying opportunities of regional development and considering decrease of number of population in rural area, is necessary to facilitate not only agricultural activities, but also other types of entrepreneurship creating new work places. This again confirms that elimination of land fragmentation is not end in itself. It has to go hand in hand with the spatial planning.

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-areativness. However authors is in opinion that the development of such plans is applicable in cases when fragmentation of real properties exist 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.

4.3. Planning of monolythic land plot

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 also is based on information about land parcel boundaries; information about the land what received payments of agricultural support.

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.

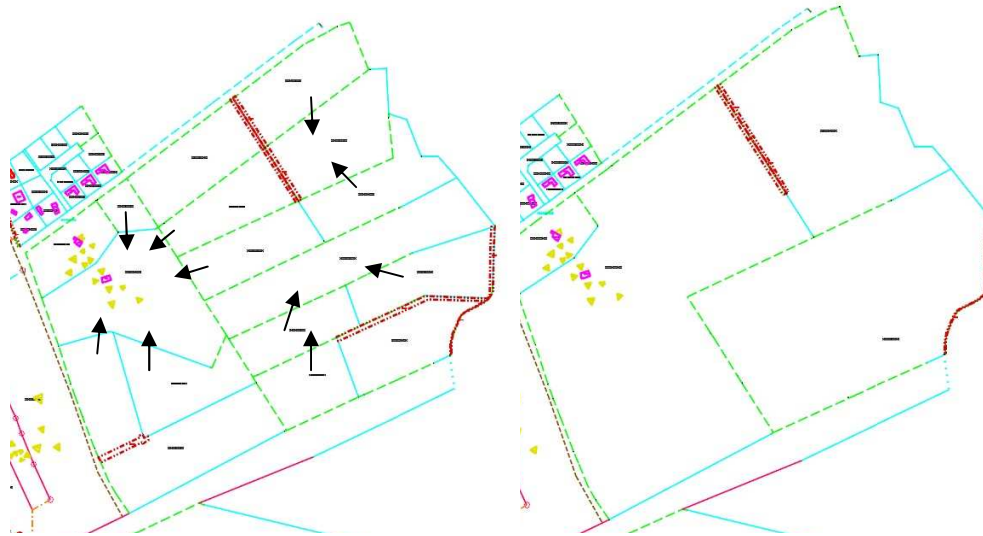


Fig.7. Land use before and after realisation of thematic spatial plan

One of the objectives of formation of monolithic 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 (Fig.6.).

Instruments for the implementation of thematic spatial plan and formation of monolithic 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 monolithic 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.

5. 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 follow:

- Property 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 plot 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.

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BIOGRAPHICAL NOTES

Edvīns Kapostīņš is a head of the Land Policy Division of the Ministry of Environment Protection and Regional Development. He graduated as a surveyor from the Department of Land Use Planning at the Faculty of Rural Engineering of the Latvia Agriculture Academy in 1988. He got a Master's degree in Land Management at the Royal Institute of Technology in Stockholm in 2000. He has professional experience in land administration and land management. He was the leader of working group for the development of Land Policy Guidelines and the Concept of the Land Management Law and is the co-author of Land Management Law. He was a member of UNECE Working Party of Land Administration (WPLA) Bureau from 2001 to 2003.

Velta Parsova since 2001 is associate professor at the Department of Land Management and Geodesy of Latvia University of Agriculture. She graduated as a surveyor from the Department of Land Use Planning at the Faculty of Rural Engineering of the Latvia Agriculture Academy in 1972. From the 1991 till 2010 she worked as senior expert on cadastre in the State Land Service of Latvia, too, and has been involved in the development of real property registration system from the very beginning. She is the author of many publications on real property registration, cadastre and land reform related topics. Her teaching and research is concerned with real property formation, registration and cadastre.

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