



Rural development and challenges establishing sustainable land use in Eastern European countries

Giedrius Pašakarnis^a, David Morley^b, Vida Malienė^{a,*}

^a School of the Built Environment, Liverpool John Moores University, Byrom Street, Liverpool L3 3AF, UK

^b Formerly of the School of the Built Environment, Liverpool John Moores University, Byrom Street, Liverpool L3 3AF, UK

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ABSTRACT

The European Union Rural Development Policy (RDP) for the period 2007–2013 seeks to establish a coherent and sustainable framework for the future of Europe's rural areas and is closely related to the improvement of living conditions in the countryside involving aspects of housing, the environment, infrastructure, communication, employment possibilities, land management, etc. Such interventions are very welcome in many Central and Eastern European countries where land reform after the collapse of the Soviet regime has resulted in a worrying drift towards rural depopulation. It is expected that the land consolidation (LC) process will not only allow solutions to the structural problems of rural land but could also create viable rural areas through improvements to rural services and infrastructure, and incentives for economic diversification, etc. Permanent and fluent communication between private and public interest groups is a most important aspect of achieving the stated objectives of land consolidation. However, this presently takes the form of a monologue rather than a dialogue in many Central and Eastern European countries. Today, and after the period of the currency of EU RDP 2007–2013, it is necessary to investigate the attitude and expectations of the interested parties if further degradation is to be avoided and the attractiveness of rural areas through LC projects is to be enhanced. The case study introduced in this paper, based on quantitative and qualitative surveys done with related key groups in Lithuania, reveals the main problems and offers possible solutions which should be reflected in the legislation to avoid the future degradation of rural areas.

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Introduction

With over half of the population in the 25 Member States of the European Union (EU) living in rural areas that cover 90% of the territory, rural development is critically important. Farming and forestry remain heavily dependent on the use and management of land and natural resources in the EU's rural areas, and play a significant role as a platform for economic diversification of rural communities (European Communities Commission, 2007).

Often rural areas are treated as mendicant cases because of the prevalence within them of socio-economic problems, underestimating their potential as core economic assets. That is why appropriate attention has to be paid to these areas. The most acute problems are felt in Central and Eastern European Countries (CEEC) where the restitution of private ownership rights has been almost completed (Vidican, 2009; Pašakarnis and Malienė, 2010). Land ownership issues are recognized as a substantial problem in the

sustainable development of rural areas as revealed by the two following phenomena: firstly, landholdings tend mainly to be small, fragmented and highly dispersed around the neighbourhood of the farms, and secondly, the abandonment of the land is becoming a serious and growing trend that is accelerated by the retirement of the older generation of farmers and by the significant migration of young people to urban areas (van Dijk, 2003; Sikor et al., 2009). It is clearly noticeable that more and more arable land is left unused or is poorly cultivated. Many plots lie fallow as rural areas of CEE countries have suffered particularly badly during the current economic crisis which increased migration, and froze rural homestead development, etc. Increasingly, plots of land which are located away from populated areas are becoming overgrown. Grubbström (2011) has noticed that such degraded landscapes raise the stress levels between neighbours and negatively affect rural tourism. Emigrants who have agreed to sell their land to active land owners lose their emotional connection to it (van Dijk, 2007). All of this hampers the viability of rural areas and acts as a brake upon the development of both private and social capital.

A fundamentally different approach to rural development is required. An increasing number of voices are calling for an approach

* Corresponding author.

E-mail address: V.Malienė@ljamu.ac.uk (V. Malienė).

wherein the countryside is no longer seen narrowly as a factory for producing food, but as providing a multitude of functions including recreation, work and living places, aesthetic and environmental services, water management and purification, as well as ecological stability (Beckmann and Dissing, 2004). Land development approaches are not able to stop entirely the migration and further marginalisation of agricultural regions. A combination of different tools such as land banking, land consolidation, formation of larger units by cooperation, land re-allotment, and the promotion of other land uses should help regions find a new balance between commercial farming, nature and landscape preservation (van Dijk and Kopeva, 2006; van der Jagt et al., 2007).

Rural Development Policy (RDP) seeks to establish a coherent and sustainable framework for the future of Europe's rural areas (European Communities Commission, 2007) and is closely related to the improvement of living conditions in the countryside by impacting on the housing environment, infrastructure, communications, employment possibilities, land management, etc. (Backman, 2002; Malienė and Malys, 2009). A pleasing living and working environment is needed to attract enterprises to economically attractive regions; this is one of Europe's core objectives in the global framework (van der Jagt et al., 2007; Malienė et al., 2008; Mulliner and Malienė, 2011). The European Council emphasises the economic, environmental, and social elements of sustainability which were set in EU RDP for the period of 2007–2013 through three following themes (European Communities Commission, 2007):

- improving the competitiveness of the agricultural and forestry sector;
- improving the environment and the countryside;
- improving the quality of life in rural areas and encouraging diversification of the rural economy (Council Regulation (EC) No 1698/2005).

It was expected that the land consolidation process would resolve not only the structural problems of rural land but could also create economically viable rural areas through improvements to rural services and infrastructure, incentives for diversification, etc. (Pašakarnis and Malienė, 2009, 2010). In many Western European countries land consolidation is an integral part of a broader rural development process which includes community renewal (Thomas, 2006). In the EU member states it is often implemented with EU co-financing under the national rural development programme.

Ossko and Sonnenberg (2002) argue that land consolidation will be the most important procedure in Central Europe in the near future if it can enable the creation of an economic agricultural property structure and properly functioning rural land markets.

If further rural degradation is to be avoided after the expiry of EU RDP 2007–2013, and if the attractiveness of rural areas through LC projects is to be enhanced, then the attitudes and expectations of the interested parties need to be investigated. The authors of this paper investigated the situation in Lithuania as a case study and provide findings, which could be used as guidance in other CEE countries. This paper will proceed to present the investigation which centred upon:

1. A qualitative survey with private land owners participating in the LC project implemented in 2005–2008, and
2. A quantitative survey with representatives from local government (municipalities) in the year 2010.

Based on revealed attitudes and expectations, the authors of this paper provide suggestions for possible solutions, which could serve as guidelines for policy makers, land management office specialists

initiating new projects based on the needs of land owners, local municipalities, communities interested in LC projects, and other interested parties.

The evolution of land consolidation in Lithuania during the decade 2000–2010

Over the past 19 years Lithuania has been in the process of restoring ownership rights in land, forests, water bodies, residential houses, and commercial buildings. Three methods were applied to the restoration of land ownership rights to the former owners – in kind, in equivalent, and by compensation. The restitution process is now coming to an end (more than 95% has been restored in rural areas), but watchfully observed it appears that this process is never to end as strong governance is still missing.

Now more and more it can be perceived that even after the land reform the resultant land holding structure is inefficient because of its fragmentation, and that this situation has led to a rise in the number of abandoned plots. State land is also very scattered and spread chaotically, which in turn hampers its sale and its effective usage. There is also Free State land – land not privatized during the land reform which has been left to the State. Such plots are often of poor quality and therefore not very attractive. It is expected that Free State land will be privatized during land consolidation projects.

Lithuania's rural areas cover more than 97% of country's territory and are home to 33% of people (LIAE, 2011b). In recent years, the average size of farms has slightly increased from 10.4 ha (2003) to 15.0 ha (2010) (Statistics Lithuania, 2011). However, at the same time, the amount of abandoned land has increased from 400 to 900 thousands of hectares. This land is used neither as an economic nor as an agro environmental resource, which reduces the country's agricultural development, hinders the land resource management, undermines the country's image. Land consolidation is one of measures seen by Lithuanian government to form viable agricultural holdings (LIAE, 2011a).

Land consolidation in Lithuania started from the year 2000 with pilot land consolidation projects carried out with the support of experts from Denmark representing the Food and Agriculture Organization (FAO) of the United Nations. The first stage of the LC project was focused on formulating the legislation and improving farm structures (Hartvigsen, 2006). The second stage of the project was launched after one year and was focused on sustainable rural development. Immediately after this, a draft LC legislation model (originally created during the first wave of pilot projects) was improved by integrated rural development measures, and this, the 2004 LC legislation model, remained valid until 2010. The continued involvement of international land consolidation experts would be appreciated today not only to assure transparent use of EU financial support, but also for decision support.

In 2005–2008 the first 14 land consolidation projects in four counties (Telšiai, Marijampolė, Panevėžys and Tauragė) started on a “learning-by-doing” basis in an area of 4827 ha with the participation of 388 land owners and an aggregate total of 731 plots (see Table 1).

Financing of these projects (their organisation, preparation and implementation) was covered under the Lithuanian Single Programming Document for the period of 2004–2006 (with support from The European Agricultural Guidance and Guarantee Fund Guidance section), under the IV priority “Rural development and fishery”, measure 4 “Promoting the adaptation of rural areas”, sub-measure “Land re-parcelling”. These 14 LC projects (amounting to €753,000) were financed by the European Union (71%), and from the National budget (29%). For the land owners this process was totally free of charge. Land consolidation projects are implemented

Table 1
Fundamental facts about the first 14 LC projects.

Project/total area (ha)	Total No. of land owners	Total No. of plots before LC	Total No. of plots after LC
Telšiai county, LCP I/670 ha	44	115	67
Telšiai county, LCP II/638 ha	55	111	81
Telšiai county, LCP III/362 ha	29	52	40
Telšiai county, LCP IV/341 ha	20	46	33
Telšiai county, LCP V/136 ha	11	23	17
Marijampolė county, LCP I/607 ha	31	57	41
Marijampolė county, LCP II/482 ha	74	101	82
Marijampolė county, LCP III/199 ha	9	8	8
Marijampolė county, LCP IV/192 ha	28	40	24
Panevėžys county, LCP I/397 ha	22	57	41
Panevėžys county, LCP II/270 ha	18	26	17
Panevėžys county, LCP III/192 ha	21	31	39
Tauragė county, LCP I/208 ha	14	38	10
Tauragė county, LCP II/133 ha	12	26	9
Total	388	731	509

only on voluntary basis in areas where the clarification of land ownership rights has been almost finished (~99% completed).

These first land consolidation projects started as a result of local land management departments' explanatory work (in 2005) persuading the bigger active land owners to participate. Unfortunately, even today the lack of awareness from land owners is still very much an issue. Bigger and more active land owners having plots spread over the affected area quickly got the idea and wanted to participate. Local land management departments were projecting a post-project vision of life after the LC project had been completed with a new local road network (with hard surfacing), repaired drainage systems, the possibility of adding Free State land adjacent to their plots, etc. However, not all of these improvements have been implemented. On the other hand the process has been the trigger for smaller land owners to have their holdings measured and formally delineated which in itself has raised the land value.

Land owners from these first 14 projects presented common problems (identified through questionnaires) to the governors of the affected counties who then attempted to resolve them through land consolidation. Typically, this involved enlarging farm holdings, improving farm structure, compacting farms, improving the local road network, reducing distances between cultivated plots, creating a territorial base for infrastructure improvement, and identifying the areas where land improvement is necessary (mainly repair of drainage).

As the "owners" of the Free State Land (prior to July 2010 when their offices were abolished), the county governors were potentially able to resolve such problems through land consolidation and through a process of cadastral measurement which gave the plots within the "ownership" clearly defined boundaries. However, shortly after the consolidation started, it became apparent that the law would not allow for State Land to be involved in the process. For this reason these first land consolidation projects fell far short of the initial ambitions for them. In the main, the projects were focused only on how to enlarge farm holdings and create a convenient local road network (which has yet to be started). The National Land Service under the Ministry of Agriculture affirmed that after the implementation of the land consolidation project, land owners and the local community would have priority in receiving external funding from other structural EU funds in order to fulfil planned improvements, i.e. renovation of drainage systems, building of local road networks, etc. At the moment the situation with the local (field) roads is critical as farmers are driving with no regard to neighbouring boundaries even though the road network is set out in the land reform plans (Pašakarnis and Malienė, 2011).

Soon after implementing these first 14 LC projects, problems in governmental sector were identified. Strong governance is still missing in Lithuania. The National Land Service (NLS) under the Ministry of Agriculture is doing a lot to promote land management processes through LC and is trying to fill in a huge information gap that is still a major reason for LC being slackly implemented. Many politicians are also not in favour of LC as they think that this land management instrument is destroying family farms and creating huge agricultural enterprises with the accompanying spectre of rich foreign farmers buying out the newly created freeholds. There are further reservations concerning the transparency of the transfer of State land into the private sector during the course of a LC project.

Within Lithuania there is still a lack of land management expertise and the older generations are still affected by the memory of the Soviet regime when collective farms were the model for agriculture. That is why the idea persists that land consolidation is going to create large collective style farms again.

Moreover, during the final stage of the project it appeared that notaries and the State Enterprise "Centre of Registers" had insufficient expertise to deal with complex LC exchange agreements. Each land owner has an agreement "book" consisting of hundreds of papers, where all the data of all the parties to the project is documented. These misunderstandings only occur because an approved full-rate LC methodology is missing in Lithuania.

The implementation stage of these projects covered only the preparation of land consolidation project plans and cadastral measurements. That is why there are presently no successful projects with all measures of sustainability fulfilled which could be presented as an example to parties interested in future project initiation. The initiation of new land consolidation projects was suspended as it became clear that many changes were required to bring forward legislation to establish a State Land Fund whose main priority was to be a strong and active player in the LC process. On 12 August 2010 these changes were made and the State Land Fund was established reorganizing the main land reform actor – the State Land Survey Institute. The consolidation projects undertaken during Rural Development Programme (RDP) period of 2007–2013 will be initiated by this entity. As Ayten et al. (2008) states, land consolidation consists of a set of works in which many institutions must work together, each having regard to the activities of the others. For this reason, communication and coordination between the institutions is of paramount importance if authorization chaos is to be avoided and the projects are to continue along a healthy path.

The financing of the next round of land consolidation projects is anticipated in the Lithuanian Rural Development Programme for 2007–2013.¹

In Lithuania the total support for LC during period of 2007–2013 is estimated to be €16,160,000 financed from the EU (75%) and the national budget (25%), with a maximum support of €400,000 per project. It is expected that by 2013 the average size of farm in Lithuania will double; where 108,000 ha of land in the minimum number of land consolidation projects (i.e. 40 projects) will be consolidated. These figures present quite a big challenge due to a very short time scale involved.

Research methodology

Public and private synergy is very important when seeking to achieve better long-term results in rural areas. When seeking common objectives in rural areas, land owners through local

¹ Lithuanian Rural Development Programme for 2007–2013. AXIS I "Improving the competitiveness of the agricultural and forestry sector" Measure 7 "Infrastructure related to the development and adaptation of agriculture and forestry". Sub-measure 2 "Land consolidation".

communities should ally with local government. Results achieved during LC are the best partnership indicator of how communication between land owners and municipality is working in practise.

van den Brink (2009) states, that development planning is based on coalitions between public and private parties and on innovative financial arrangements. It makes use of urban–rural relations, instead of focusing on rural and urban areas separately. It is also about public–private partnership, i.e. creating alignments between land use functions, interests, professional disciplines and financial arrangements. In other words, it is a co-production between public and private actors, interest organisations, advisors, designers and users.

It is difficult to admit, but in many CEECs local government is weak. Communication and partnership between municipalities and local communities (land owners) is inefficient. It is necessary to strengthen this missing part as effective communication is crucial.

Local government has to understand what rural development objectives could reasonably be stated during land consolidation and how they can be achieved. Seeking the best possible results for public and private, local government could even support the realization of objectives that it was unable to implement using support from LC.

Case study described in this paper is based on quantitative and qualitative surveys involving relevant key groups (land owners and municipalities) in Lithuania mainly focusing on social and economic measures of land consolidation. The key objective of the survey was aimed to establish awareness of sustainable rural development and benefits of land consolidation amongst key groups.

To identify land owners' changes of attitude and the fulfilment of their expectations from the LC process, during 2006–2008, face-to-face interviews based on a fixed questionnaire were conducted with participants in LC projects in Telšiai county (Telšiai county LCP II), Mažeikiai district, parts of Židikai and Ukriņai cadastral areas (see the project territory highlighted on the map). The survey was focused upon the private land owners' attitude at stages:

1. Before starting the LC project, and
2. After the LC project was implemented.

KML GoogleEarth map

Questions were mainly focused on the social and economic benefits of the project as the awareness of environmental measures during project implementation among the land owners was very low. From 46 private land owners, 32 participated in this survey. The average age of land owner participating in this survey was 55 years (mode = 41, oldest = 85, youngest = 30).

The project was implemented in a 638 ha area, where 46 private land owners and one trustee of State land were participating. A total of 111 plots covered the project, 104 of which were private. The target was to achieve an average plot size in excess of the 6 ha which existed at the start of the project. The biggest plot in the project was 39 ha, the smallest 0.11 ha. Most farmers or agricultural companies grow oil seed rape to supply a nearby bio-fuel factory. The project area was not densely populated, containing only seven homesteads in total. The cost estimated by the National Paying Agency for the implementation of this project was €99,829 (€156/ha) and the project implementation duration was approved at 21 months.

After the LC project had been implemented, the number of private plots was reduced from 104 to only 74 (see Table 2).

This rearrangement effect was achieved as a result of the close cooperation between the professional surveyors and the property owners. Working together, the surveyors and the owners managed to increase the average plot size from 6 ha to 8 ha. Before consolidation the largest plot was 39 ha; after LC project implementation this value has risen to 61 ha. The true benefit of this type of exercise

Table 2
Land consolidation project effect.

	1 plot per owner	2 plots per owner	3 plots per owner	4 plots per owner	≥5 plots per owner
Before LC	26	11	4	3	2
After LC	31	9	4	1	1

may be illustrated by the experience of one particular farmer whose 24 plots dispersed over the entire area covered by the project was consolidated down to eight plots at its conclusion.

In an effort to evaluate local government understanding regarding this powerful land management instrument, the authors of this paper prepared and circulated an anonymous questionnaire for the municipalities of Lithuania.

In Lithuania there are 60 municipalities, of which 53 are district municipalities. In December 2010 using Bristol Online Surveys (an internet based questionnaire solution) a questionnaire for specialists dealing with rural areas from district municipalities was launched in order to find out more about their attitude to LC. For this survey specialists from "agriculture departments"² or "architecture departments"³ were chosen as they were in direct touch with rural dwellers regarding the grant and implementation of rural development permits.

The duties of these departments lie in managing the implementation of the district's master plan and the collection and collation of the associated data requirements. The survey was distributed to the GIS specialists within the departments on the grounds that they were the custodians of the regional database and was closely concerned with the regional development strategy. The survey invited responses to questions concerning do they understand what it is possible to reach using LC in their district, the extent of LC in their districts, the availability and accessibility of information about LC schemes, the perception of such schemes, and rural development progress in general within their districts.

Responses were received from 42 of the 53 district municipalities. Reasons for non-response included a stated lack of knowledge about LC issues or simply that the matter did not affect their regions which were more than half covered in forests.

Results and discussion

Interviews that were conducted in 2006–2008 with 32 private land owners who had participated in the LC process from its outset revealed that only three of them (active land owners having many plots in the affected area) had any knowledge of incentives on offer whilst the balance did not get to learn of them before 2005. Their reasons for engaging with the consolidation process stemmed from a long course of persuasion from local land managers – "a top-down" approach. Land owners having only a single plot, especially those who were living far away from project area had no motive to participate in the consolidation process, as they had nothing to consolidate. The reason why they nevertheless still participated was because they were promised that their cadastral (geodetic) measurements would be done for free; such a service normally costs approximately €350/ha. As the market price per hectare of land was about €1200 at the time, this was sufficient incentive to trigger participation by private land owners.

To identify changes in participants' attitudes towards the LC project, the questionnaire was administered on a before-and-after basis, i.e. in 2006 and 2008 (see Fig. 1). The questionnaire was focused on the social and economic benefits of LC including, e.g.

² Žemės ūkio skyrius.

³ Architektūros skyrius.

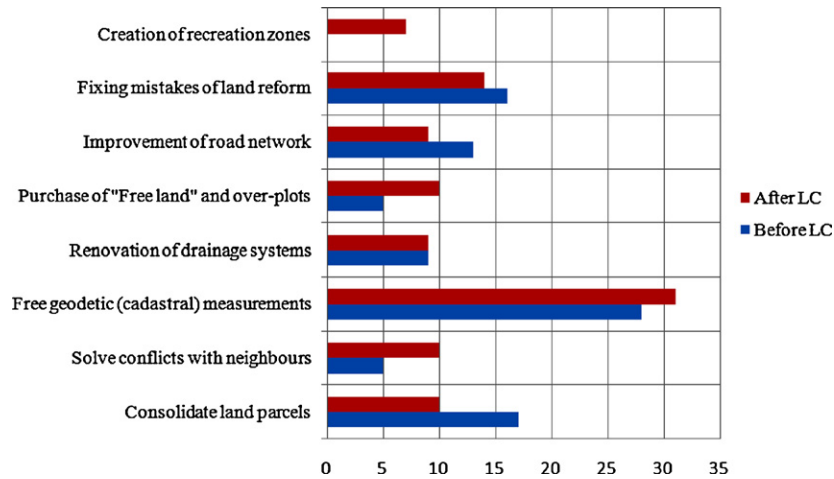


Fig. 1. Changes in land owners' attitudes to the LC project.

leisure, connectivity, diverse employment opportunities, efficiency of agriculture, improvement of existing drainage systems and other utilities. It quickly became apparent that the main motive for participation before the project commenced was the prospect of “free geodetic (cadastral) measurements”, and indeed this remained the case after project completion. Fig. 1 also reveals that the weakest expectation from the project lay in the “creation of recreational zones”. Land owners in the affected areas had few thoughts about alternative land uses when they could derive an assured income from growing rape seed which they could sell to the nearby bio-fuel factory.

In an attempt to clarify the impact of the LC project upon the behaviour of land owners over the next 5 years, further questions were asked of them in regard to the anticipated development of their businesses. Five possible scenarios were offered for the next 5 years and landowners were invited to select the one which they thought best reflected their own prospects. The results are given in Table 3.

And finally, land owners were asked to evaluate the project's efficiency, focusing on how it was organized and how the main goals were achieved. The rating marks were from 1 (very bad) to 10 (very successful). The results are shown in Fig. 2. None of the land owners gave rating marks of less than 5.

The lowest rating (5) was given by the three private landowners who already knew about LC before the project commenced and clearly compared unfavourably the actual outcomes with the advertised outcomes. They were disappointed that the project implementation did not go as far as actually renovating drainage systems, building new roads, installing new electricity lines, etc. The rating of 5 was their way of saying that only half of their expectations had been met. The highest mark (10) was given by land owners having one plot in the scheme and whose main concern was to access the free geodetic survey.

The average rating (8.47) suggested that for most participants the project lived up to expectation. However, when these

expectations are low, the project cannot be sustained which suggests that a necessary pre condition for success is that the participants are brought to a full understanding and acceptance of what it is possible to achieve through land consolidation.

Before a project is initiated, the authors of this article recommend that a zoning map of the selected area be prepared, together with guidelines which could serve as a business plan for the affected rural occupants. Following such a business plan would ensure the timely distribution of EU support for EU RDP 2007–2013 measures. The plans would also be of use to land owners, the LC project implementation team and support administrators.

As land consolidation is not a new term in Lithuania, one of the first things that the authors wished to establish was the extent to which specialists within the municipalities had knowledge of any LC projects in their districts which had been implemented during 2000–2008. Of the 42 specialists who were asked, 17 answered that they did not know, 19 answered that they had no such projects, and the remaining 6 responded positively. Separate questions were provided for these 6 respondents asking them to answer whether or not project solutions (drainage renovation, road construction, etc.) were implemented using other EU structural funds or from the municipal budget. To this additional question three specialists responded negatively and other three answered that they do not know.

The Municipality representatives were asked whether they knew enough about Land Consolidation and its aims and objectives to be able to present it to a typical farmer of their district. Only three representatives answered that they did not feel sufficiently knowledgeable to be able to make such a presentation, 31 thought that

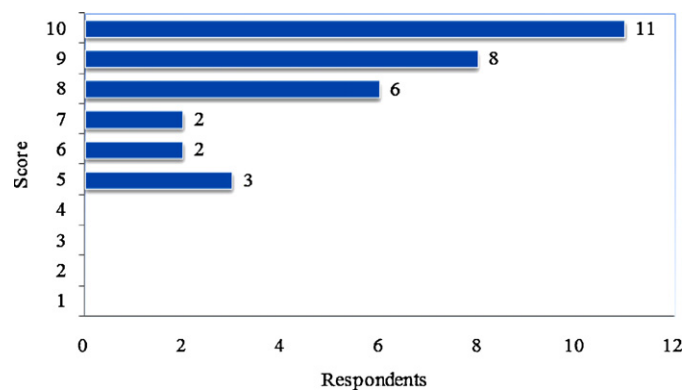


Fig. 2. LC project evaluation provided by private land owners.

Table 3
Future perspectives influenced by LC.

Future perspectives for 5 years provided by land owners	# of land owners
to expand their farms	4
to sell their land in the near future	4
to rent all their land	3
to use their land further without any investments to expansion	10
do not know	11

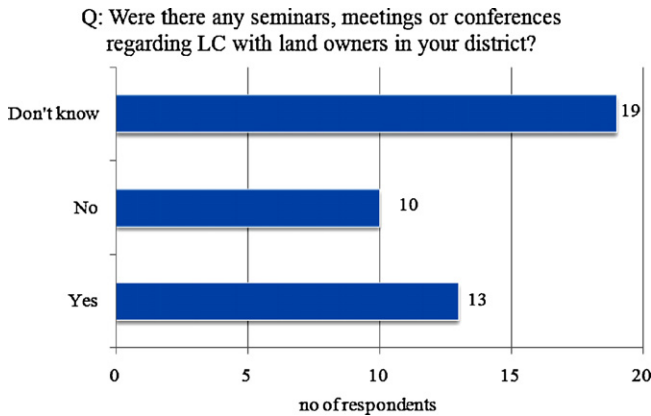


Fig. 3. Accessibility to information about LC in district.

they knew enough, and the remaining eight were fully confident in their expertise.

The specialists chosen for this survey are in continuous communication with land owners, giving suggestions and permits for development. For this reason they have to be regional beacons providing as much information as possible and directing land owners towards land consolidation. Only two respondents replied that they had been asked by citizens in their districts to provide more information about land consolidation. One specialist was asked about land consolidation by 25 land owners, and the other by five land owners. The main reason why land owners were asking about land consolidation was that they had heard about the free geodetic measurement. This suggests that the land owners have very narrow view of land consolidation.

The next phase of questioning focussed upon the degree to which professional staffs within the municipalities were aware of the need to make LC information available to potentially interested parties within their district. The most effective way to spread information about land consolidation and its objectives is through live seminars and meetings with key groups.

Survey participants were asked how information about land consolidation is managed in their district municipality (see Figs. 3 and 4).

These figures show that it is necessary to launch an effective public awareness campaign involving as many of the interested parties as possible and presenting to them the many advantages that can flow from the adoption of the LC packages. The primary platform for such a campaign should be through the public media (press, TV and radio), followed by the District municipality offices where land owners and local communities could find all the necessary information. Having advisors within the municipal offices that

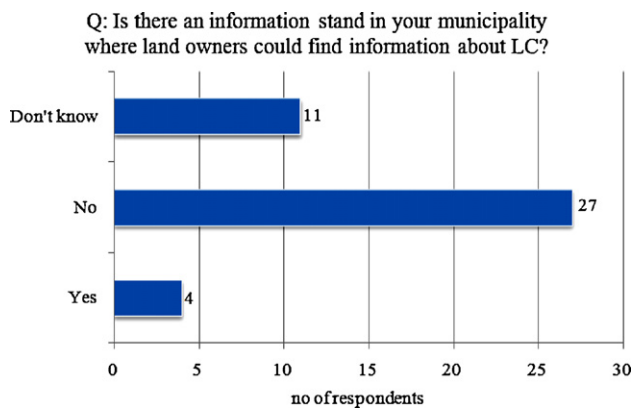


Fig. 4. Accessibility to information about LC in municipality offices.

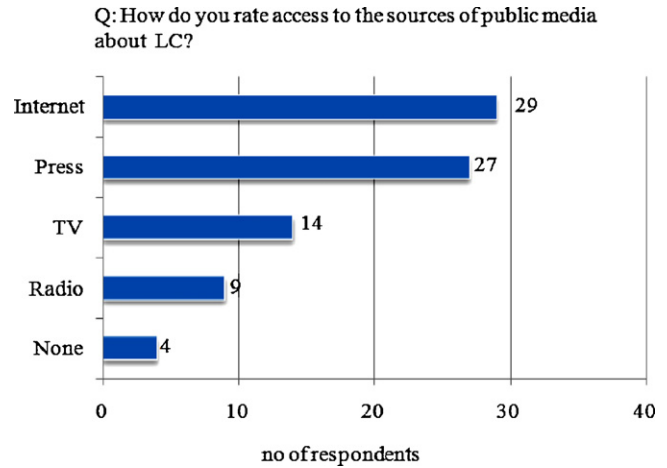


Fig. 5. Public media sources of information about LC accessed by respondents.

are competent to offer detailed assistance at the local level would complete the information loop.

Municipality specialists were asked to specify all possible variants of the sources of mass media where information about LC was found. The responses revealed that the highest rating was given to the Internet (29), followed by the Press (27), Television (14) and Radio (9). Four respondents had not come across any information at all in the public media (see Fig. 5).

The above pattern of responses flags up the need to use the Press more actively, given that the older generation rarely use the Internet.

The next stage of questioning concentrated on the extent to which the municipality professionals appreciate the rural development progress in their district. Every district is distinctive as the municipalities near major cities feel pressure from urban development, whilst the outermost districts feel more able to cherish the landscape. To evaluate the pressure of LC demand from farmers it was necessary to identify dominant farms within the districts. Enquiries yielded the following results (Table 4).

Land abandonment is identified in almost in all CEE countries as a very important issue. From these survey results it is possible to conclude that land abandonment for local government is not a problem as expected. Twenty-seven respondents stated that there is a relatively small amount of abandoned land plots, twelve said that there is a considerable amount, two said that almost all land is used, and one did not know exact situation. Participants were asked to identify the main reasons why they thought land abandonment occurs in their district. In addition to the reasons given in Fig. 6, under "Other problems" respondents suggested that land may be left fallow by city-dwelling owners who were holding it as an investment against the time when prices had risen sufficiently to justify a disposal.

The main indicator of rural viability and vibrancy is the growth of population. Unfortunately this is simply not happening as younger people migrate to the cities leaving the countryside to be dominated by a cohort of increasingly aged farmers.

The professionals were asked about the role of Local Action Groups (LAG) in their municipalities under the LEADER+ initiative

Table 4
Dominating farm sizes.

Size of farm	Value (ha)	Number of respondents
Small	<10	21
Medium	10–50	18
Large	>50	3

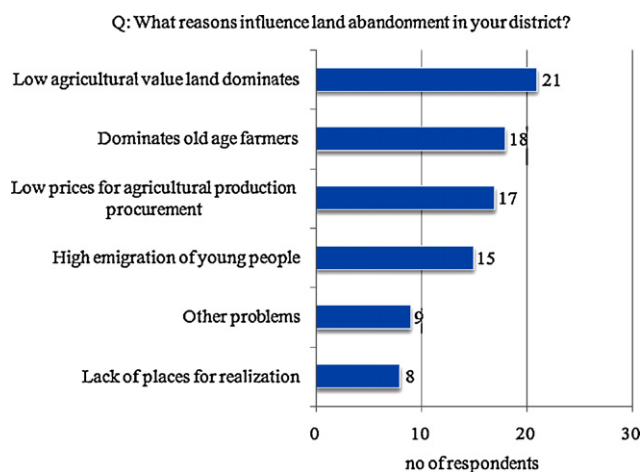


Fig. 6. Reasons given for land abandonment.

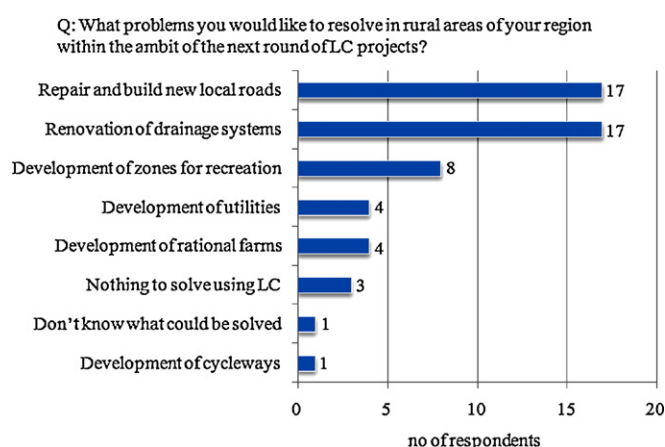


Fig. 7. Infrastructural and agricultural issues to be solved through LC.

to assist rural communities to implement a strategy of the development in their areas. Twenty-six respondents answered that they have a Local Action Group which is active in this respect in that they are trying to minimise the difference urban and rural areas. Eight answered, that they did not have a Local Action Group, and the final eight answered that they did not know what a LAG was.

And finally, it was very important to find out the attitude to land consolidation of the municipality specialists and whether they appreciated LC as a tool for complex development. Respondents were asked to indicate what problems they would like to resolve in rural areas of their regions within the ambit of the next round of LC projects (see Fig. 7).

These answers reflect the preoccupation that rural dwellers have with infrastructural problems (bad drainage systems, local roads condition) as relayed through the specialists. Through partnership, the ambitions of both the municipalities (for infrastructure improvements), and the rural dwellers (for agricultural improvements) could both be realised.

The findings of this paper are that there is still quite a wide gap between aspiration and actuality as the public and private sectors do not formulate common objectives in seeking to avoid the future degradation of rural areas.

Conclusions

Given the success that programmes of land consolidation have had over the years in Western Europe in resolving the structural problems of rural areas, it was only natural that their introduction

into the Lithuanian situation would be accompanied by a very high expectation of success.

The authors of this paper would stress that countries such as Lithuania, having had little practice in dealing with land consolidation would have benefited from the establishment of a steering group comprised of WE experts to carefully monitor and evaluate the implementation of coming EU RDP 2014–2020 period.

The reality has, however, fallen short of this expectation. The fundamental reason for this appears to have been a lack of congruence between the objectives of the primary parties involved in the process. Whilst the private land owners were inclined to concentrate upon the short term gains such as free cadastral surveys, their public representatives were more focussed upon longer term infrastructure development. Clearly progress is conditional upon all parties agreeing mutually advantageous objectives and then pursuing them single-mindedly into the longer term.

Another very basic problem which the research identifies is the lack of knowledge and understanding of the programme amongst the affected parties. Until this matter is resolved, it is difficult to envisage mutually compatible policies emerging which, if adopted and implemented, would deliver a sustainable flow of benefits to the public and private sectors.

There is a critical need for a strategic public awareness programme which could not only provide a “bank” of expertise to the public and private sectors, but could also disseminate best practice information (know-how) from successfully implemented projects of land consolidation from within Lithuania and beyond.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.landusepol.2012.05.011>.

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