LAND GOVERNANCE FOR DEVELOPMENT IN CENTRAL AND EASTERN EUROPE: LAND FRAGMENTATION AND LAND CONSOLIDATION AS PART OF SUSTAINABLE DEVELOPMENT GOALS

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Abstract
Most transition countries in Central and Eastern Europe (CEE) face enormous challenges in developing a viable land structure, requiring a set of measures which is unprecedented in its scale and intensity to speed up this process. Analysis of policy initiatives in CEE countries illustrates that options for solving fragmentation and small scale of farms have concentrated on particular instruments like land consolidation and land banking. From discussions in the expert network LANDNET it can be concluded that land governance in CEE countries has scope for better coherence and more balanced and focused use of various instruments. Land governance should be developed as a comprehensive framework of mutually supportive instruments for development. Framing of land fragmentation as part of the Sustainable Development Goals (SDGs) is believed to be a useful way to come to more specific policies in CEE countries and other regions of the world.

Key Words:
Central and Eastern Europe, land consolidation, land fragmentation, land governance, land tenure, SDGs
1. Introduction

Most transition countries in Central and Eastern Europe (CEE) face enormous challenges in developing a viable farm structure. Due to land reforms with restitution of land rights lost during collectivization in the decades after World War II and/or distribution of state agricultural land to the rural population in physical parcels, widespread land fragmentation is present which has been a point of attention and debate over the last 15 years. This paper aims to contribute to the discussion on efficient policies and strategies in the CEE region (see Figure 1).

![Figure 1: The 25 countries in Central and Eastern Europe](image)

Section 2 describes briefly the magnitude of land fragmentation as well as trends in farm size and structural development. Land fragmentation in the context of this paper is seen as the situation common to most countries in the CEE region with many very small (less than 3 ha) farms, usually divided in a number of small and scattered land parcels that are either fully providing subsistence or partly with weak market connection. Fragmented farms struggle to achieve economic viability while the division into various small parcels hampers economic performance. In specific agro-ecological zones, fragmentation however provides opportunities for crop diversification and risk reduction.

Section 3 reasons that proper land market functioning is a pre-condition for dealing with fragmentation but is often not sufficient to adapt properly to socio-economic and environmental demands from society. It provides an overview of the main instruments that have been introduced in the CEE region and draws preliminary conclusions on the effectiveness of the measures being introduced. The paper draws upon exchange of experiences and discussions on options for more effective dealing with land fragmentation and small farm size in the LANDNET. This network was established with support of FAO after a first international event on land fragmentation in Central and Eastern Europe, held in Munich in 2002.
Section 4 proposes options to set up more efficient and comprehensive policies to deal with land fragmentation. It discusses a model of mutually supportive measures that either stimulate, guide or complement the land market. Linking such models to the 2030 Agenda for Sustainable Development is considered a good option to integrate more firmly land tenure and land market development into national strategies. Land fragmentation and small average holding and farm sizes are fundamental structural problems hampering agriculture and rural development in many CEE countries. This needs to be properly addressed to achieve the full impact of many other development goals, including the Sustainable Development Goals. Elements proposed are proper analysis, target setting and design of measures that improve and develop land tenure in line with the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT).

Section 5 proposes future steps to ensure awareness of the importance of land tenure and land market development as structural element of development among national governments and international representations in the region like the European Union and World Bank. Firm investments and pilot actions in setting up appropriate strategies, are needed besides intensive exchange among experts and capacity building.
2  The context of small scale fragmented farms in CEE countries

2.1  Farm structures in Central and Eastern Europe

Land reforms with restitution of land rights to former owners and/or distribution of state agricultural land to the rural population in physical parcels, have led to widespread land fragmentation in Central and Eastern Europe (CEE). Several attempts have been undertaken to measure the level of fragmentation in a certain area. Parameters used include 1) size of the holding, 2) the number of parcels, 3) the size of the parcels, 4) the size distribution of the parcels and 5) the spatial distribution of the parcels and the 6) shape characteristics of the parcels (King and Burton, 1982). In more recent work land ownership and land use have been distinguished. While ownership is fragmented, the use may be consolidated through lease agreements leading to larger and more regular fields (Van Dijk, 2003). In this context, land fragmentation has three dimensions:

- small parcels, often with irregular shape and scattered,
- small properties (in the sense of total amount of land owned by one person / family), and
- small farms (in the sense of total amount of land managed by one farm).

All three may appear simultaneously and have different consequences in terms of agricultural performance and land use dynamics. Table 1 shows the level of fragmentation of ownership in the different CEE countries versus the level of fragmentation of land used by one farm. The table clearly shows that problems of fragmented ownership in countries like Czech Republic and Slovakia in practice are solved by an active land lease market.
<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Level of fragmentation of ownership in agricultural land</th>
<th>Level of fragmentation of land use in agricultural land</th>
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<td>Balkan countries except former Yugoslavia</td>
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<td>Azerbaijan</td>
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*Table 1: Current level of ownership and land use fragmentation in the 25 study countries. Source: Hartvigsen, M. (2013b), p. 339.*

Armenia may serve as an example of a country where land is fragmented in all three dimensions of plots per farm, ownership size and farm size (see Box 1).

**Box 1 – Land fragmentation in Armenia**

The privatization of land was based on principles of a balance of i) historical justice (give back what was lost through restitution) and ii) consideration of equality (equal distribution to the rural population) (Swinnen and Mathijs, 1997). The process transformed 860 collective and state farms into about 337,900 peasant farms. The average size of the newly formed farms is about 1.2 to 1.4 hectares, which usually is fragmented into 2 to 4 parcels and the distances between parcels sometimes exceed 10 to 15 kilometers (Muradyan 2007). Figure 2 shows that the average farm size in this category did not improve significantly while fragmentation was maintained. In 2014,
in total 345,875 farms had an average size of 1.48 ha with some regional differentiation (Agricultural Census of the Republic of Armenia 2014). Figure 2 shows that 89% of the farms are below 3 ha, using 51% of the land. Figure 3 illustrates that almost half of the holdings have three or more plots.

Armenia has a fluctuating agricultural land market with annual turnover ranging from 1.15 to 2.04% between 2009 and 2016 with an average of about 1.6% turnover annually (State Committee of the Real Property Cadastre, June 2017). This is considered to be low, taking into account the small farm size at present and comparing it with rates in Western Europe (Ciaian et al., 2012). Procedures for property transfer and registration are fairly smooth with reasonable fees and processing time (Egiashvili, 2016). No other policy instruments are in place to stimulate the turnover of land or land use (e.g. land banking, retirement schemes, property transfer tax exemptions). In some cases pre-emption rights are granted e.g. for leaseholders (Van Holst, 2017).
2.2 Impact of small fragmented farms

A number of studies indicate that land fragmentation has a significant negative effect on the level of farm productivity. Di Falco, Penov, Aleksiev and Van Rensburg (2010) list a number of publications that report that land fragmentation increases production costs and leads to inefficiency. The uptake and efficiency of technology may be hampered and farmers are discouraged to adopt innovations and new technologies. Land fragmentation is also contributing to land abandonment in a number of CEE countries including Bosnia and Herzegovina, FYR of Macedonia and Armenia. The scattered land leads to inefficiency. ‘Fragmented fields are difficult to cultivate, it is difficult to use machines; space is lost along field boundaries and there are problems with development and management of irrigation systems’ (Di Falco et al, 2010). Various studies have focused on developing indices to assess the level of fragmentation. A recent model (Demetriou et al, 2013) integrates geographical information systems with a multi-attribute decision making method to produce a ‘global land fragmentation index’. It takes into account the spatial distribution of the parcels, the size of parcels, the shape of parcels, the accessibility of parcels and the type of ownership (e.g. the issue of shared ownership). A study in France (Latruffe and Piet, 2014) has tested empirically the effect of land fragmentation on the performance of farms. Using several performance indicators (production costs, yields, revenue, profitability, technical and scale efficiency) the general finding of the analysis was a negative impact of land fragmentation on farm performance. However, the authors do ‘not advocate a ‘blind’ reduction of farm fragmentation through large scale and systematic consolidation programmes’. The authors state the ‘necessity of balancing the private and societal gains of land fragmentation reduction’.

Advantages of having different plots have also been presented based on an investigation of the role of land fragmentation on farm productivity and agrobiodiversity in the Plovdiv region of Bulgaria (Di Falco et al, 2010). Findings indicate that farm biodiversity is positively correlated with farm profitability. The results show that farms that grow a wide range of different crops and varieties perform better, when compared to those that do not with economic benefits due to crop diversification. A variety of crop species matched different agro-ecological conditions that occur within the plots. The potential of crop diversification and risk reduction certainly is to be kept in mind when addressing land fragmentation.

FAO has worked on land fragmentation in the CEE area since the beginning of this century. A comparative study by FAO (Rembold, 2003) on the effects of land fragmentation in Bulgaria and Romania makes the link between fragmentation of farms and the small size of the farm itself. Already at this time it was concluded that fragmentation in CEE is not just related to the number of plots but also to the size of the farms. The study states that in Bulgaria ‘farms of less than 1 ha in area comprise 85 percent of all individual farms and 26 percent of agricultural land. The farmers in this group produce mainly for subsistence and are commonly engaged in part-time farming. The second cohort, with 13 percent of farmers, holds 26 percent of farm land, with farm sizes ranging from 1 to 5 ha. These farms are considered to be marginal, providing only subsistence with little market participation. The third group, less than 1 percent, consists of farms ranging in size from 5 to 10 ha and occupies only 7 percent of the private farm area. The smallest group of farmers, representing only 0.2 percent, owns more than 10 ha each and cultivates more than 41 percent of agricultural land, although predominantly via leasehold agreements.’

The issue of land fragmentation is not only an issue of inefficient farm management but also a problem of small non-competitive farm sizes. Both the comparative study on the impact of land fragmentation (Rembold, 2003) and the International Symposium on Land Fragmentation and Land Consolidation in CEE countries in Munich in 2002 concluded that consolidation and reallocation of plots and parcels are needed. Such intervention was proposed to go beyond land administration systems and to ‘include questions besides agriculture’. Land consolidation practices in Czech Republic, started in the early nineties, served as an example how to deal with reallocation of parcels in combination with the implementation of so-called “common facilities”, like anti-erosion measures, construction and maintenance of field and access roads.’ This integrated approach serves both rational land management and increased ecological stability of the landscape. Acknowledging that such approach would be needed but not be
sufficient, it was proposed to follow ‘a comprehensive rural development strategy that focuses on rural infrastructure to create off-farm rural employment opportunities, reduce labour mobility costs, increase education and skills in combination with measures regarding land consolidation and better land management, and finally improve the functioning of land markets, in particular the rental markets’ (Rembold 2003).

Awareness is growing that options should not be limited to land consolidation. It is clear that the current situation provides a serious risk for the agricultural sector in CEE countries, which jeopardizes the impact of any support to the sector. While Western European countries could organically adapt and support the sector to changing market conditions since the 1950s, the situation in the CEE region requires a set of measures which is unprecedented in its scale and intensity to speed up this process.
3 Developing land markets and introduction of land consolidation and other “adjustment” instruments in CEE

3.1 The limitations of agricultural land markets

As already shown in the comparative study by FAO (Rembold, 2003), the ongoing debate in the context of land fragmentation is about the question whether land market forces will solve the issue or whether a comprehensive strategy with a more guided approach as described in 2.2, is needed. From a market point of view, land markets being lease or sales markets are supposed to cope in a ‘natural way’ with inefficiencies of the farm structure. Land transactions among economic actors will occur when the land use is not efficient. The transaction corrects the inefficiency. However, agricultural land markets are not normal markets in the sense that they are neither free nor perfect markets. Land, unlike other commodities that can be bought and sold, is immovable. From a legal perspective, only the rights can be bought and sold. This makes the land market in a way a ‘derived market’. The value of the transaction does not solely depend on the intrinsic value of the good but also depends on future options and constraints influenced by many other issues. Moreover, evolving of land structures does not depend solely on cost efficiency. While an economist may view land as a commodity, the landowner may not view it from an economic perspective but rather as cultural heritage (Dale and Baldwin, 2000). In rural areas, a strong emotional attachment to land is often the case, which counts particularly in the context of past coercive approaches towards land in a number of CEE countries. In addition, special characteristics of rural land markets produce highly segmented markets depending to a large extent on local offer and demand. Market functioning depends as well on transaction cost and bureaucratic load. And last but not least, markets are far from transparent with little information on prices and weakly developed real estate services in rural areas.

Although a complete overview of the functioning of land markets and annual turnover of land is not easily available, it is clear that variation exists between the countries. Such variation is depending on several factors. A study from 2012 (Ciaian et al, 2012) illustrates that the average annual share of agricultural land in EU member states transferred between 1992 and 2007 lies in a range from 0.2% to 4%. Older EU member states like Netherlands, Great Britain and Ireland have an annual share from 3-4% while France and Germany have a share between 0.5 and 1%. Difference may be caused by lease practices since both Germany and France have a high percentage of the area under formal mid to longer-term lease. The same variation exists in the newer member states. Czech Republic has a very low annual percentage (0.2-0.3%) of sales transactions while land leasing is almost 90% (Swinnen and Vranken, 2009). The level of sales transactions in Lithuania is relatively high (3%) with other countries like Bulgaria (2.5%), Romania (1.5%) and Poland (0.9%) in between the two extremes.

Looking at the example of strongly fragmented Armenia in section 2.2, it can be concluded that the average annual share of transactions of 1.6% in the period 2009-2016 is not a major deviation from figures in the EU. It is however low considered that lease in general is limited and mostly in the form of short term informal lease. Deeper analysis would be needed to assess whether the low mobility of agricultural land is caused by informal institutions (for instance strong attachment to land, informal dividing of land), regulatory frameworks (e.g. high transaction costs) or others (e.g. access to credit and possibility of mortgages on land). It can however be concluded that even if mobility would increase to 2-3% turnover annually, the transition of Armenian farms would take at least 50 years to double the current average farm size. Indeed the inability of “normal” land sales or lease markets to correct fragmentation requires various mutually supportive instruments taking into account the broader policy context of rural development.

3.2 Land governance for development

Analysis of policy initiatives in CEE countries illustrates that options for solving fragmentation and small scale of farms have concentrated on particular instruments like land consolidation and (to a lesser extent) land banking. To
provide evidence for this statement the work of the LANDNET has been used. LANDNET is the expert network initiated and supported by FAO (see Box 2).

Box 2 - LANDNET: Networking to deal with land fragmentation

Since 2002, the FAO Regional Office for Europe and Central Asia has been organizing annual workshops to discuss instruments like land consolidation, land banking and land market development. A first meeting of this network took place in Munich in 2002 to discuss land fragmentation issues in CEE countries. Over the years this was followed up by a series of 18 regional workshops to exchange experiences and to discuss progress, usually attracting between 60 to 100 people from 25 to 30 countries. Although originally focused on CEE countries, the network now attracts as well a firm group of experts from EU member states and Central Asia. It is well connected to ongoing developments related to land as the network includes international and national experts of ongoing technical assistance and twinning projects supported by EU, FAO, World Bank and countries providing bilateral support (e.g. Denmark, Germany, Netherlands, Sweden). Professionals involved represent the governments, the private sector, NGOs and academia. Since 2010, the network is known as LANDNET. A LANDNET Board supports the FAO regional office in preparing workshops, monitoring of land related policies in Europe and defining future activities of the LANDNET.

The aim of the LANDNET is to stimulate proper and timely responses to (changing) needs of society regarding land use and land tenure in rural and peri-urban areas. By various activities as studies, collection and exchange of knowledge and experiences, innovation of institutional frameworks and approaches is stimulated.

The scope is the broad set of institutional requirements needed to facilitate, guide and complement rural land markets. This concerns both the ‘hard side’ of regulatory / legal frameworks for market functioning like laws of land ownership, leasing and turn-over, and the ‘soft side’ like promotional measures, mediation and solving of land use conflicts. Moreover, it includes the range of public and public/private interventions to adjust the use and/or the ownership structure of land to the current economic, environmental and social reality. Interventions often take place as integrated territorial development projects serving different objectives at local, regional and national level, including instruments like land exchange, land consolidation (voluntary or majority-based) and land banking. Approaches are ‘people-oriented’ in the sense that they and carefully planned and implemented, and contain sufficient opportunity for recourse.

LANDNET activities are based on the principles laid down in the “Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security” (VGGT) and are supporting the implementation of the 2030 Agenda and achieving the Sustainable Development Goals (LANDNET, n.d.).

Although no deep or comprehensive analysis has taken place of land governance developments in the CEE region, it is fairly safe to state that developments in the LANDNET are an important indication of ongoing developments in the region. Analysis of workshop programmes and over 300 presentations during the last 15 years show that the focus of the network has the following main characteristics:

- Initial and continuous focus on land consolidation
- Land banking as a second important focus
- Broadening towards rural land market functioning since 2012
- Incidental attention for other instruments like land taxation, land leasing, pre-emption rights
- Relatively little exchange about legal frameworks

Experiences with land consolidation and land banking are discussed in the following sections.
3.3 Addressing land fragmentation and small farm sizes by land consolidation instruments

Out of 25 countries in Central and Eastern Europe, so far 21 countries have introduced land consolidation from the 1990s and onwards (Hartvigsen, 2015a). The following five minimum requirements are to be in place before a national programme is prepared and operational; i) land consolidation, as a land management instrument, is embedded in the overall land policy of the country, ii) a legal framework for land consolidation has been adopted, iii) a lead public agency for land consolidation has been established, iv) secure funding on an annual basis allows the lead agency to plan activities for at least two to three years ahead and v) technical and administrative capacity has been developed to implement land consolidation projects in the field and to manage the programme. When analyzing against these five minimum requirements, it is found that currently eight CEE countries have ongoing national land consolidation programmes. The current status of the introduction of land consolidation in Central and Eastern Europe is illustrated in figure 4. Two of these, Poland and Slovenia, already had a long tradition for land consolidation at the beginning of transition in 1990. In Poland, the first land consolidation law was adopted in 1923 and in Slovenia a law was adopted in 1957. In three countries (Czech Republic, Slovakia and Eastern Germany), land consolidation instruments and programmes were established in the early 1990s together with the launch of land reform.

![Figure 4: Status of the introduction of land consolidation instruments in Central and Eastern Europe (February 2018).](image-url)
The driving factors behind the introduction of land consolidation in the eight countries can be divided into two categories. In Poland, Slovenia, Lithuania, Serbia and FYR Macedonia, land consolidation was mainly introduced as an instrument to address the structural problems in agriculture with fragmentation of both landownership and land use and small average sizes of agricultural holdings and farms, and thus as a tool to improve productivity and competitiveness of farms. In the Czech Republic, Slovakia and also to some extent in Eastern Germany, land consolidation has not been focused on improving the land use conditions but instead has focused more on addressing the fragmentation of land ownership integrated with the land reform process and the building up of land administration systems (i.e. cadastre and land registration). Hence, in the Czech Republic, half the budget of land consolidation projects is spent on land surveying and improving land registration (Kaulich, 2013). In these three countries, an additional driving factor has been the wish to establish a land management tool for improving nature, environment and landscape as well as local agricultural and rural development needs, e.g. new field roads and access to parcels that were left without road access after the land reform.

In Lithuania, a land consolidation programme was launched in 2006 after land reform with restitution to former owners was almost finalized (see Box 3). Finally, in Serbia a land consolidation programme was re-established in 2007 after modernization of the land consolidation instrument applied during the Yugoslavia era.

**Box 3 - Voluntary land consolidation in Lithuania**

In Lithuania, collective farms were dismantled after independence in 1991. Land was restituted to former owners in a long process leading to average farm size of 5.3 ha and an average of 1.8 parcel per farm (Hartvigsen, 2013a). In the period 2000-2010, Lithuania received through different projects international assistance to implement land consolidation pilot projects, to build up the legal framework, to develop impact assessment methods, to set up a land fund and to build up a national land consolidation strategy.

Lithuania has a voluntary form of land consolidation with a minimum required participation of five land owners representing at least 100 ha.

Land consolidation measures were mainstreamed as part of the EU funded Rural Development Programme 2004-2006, in which 13 projects were implemented involving 4,800 ha and almost 400 owners. In the programming period 2017-2013, in total 39 projects were carried out, involving 46,000 ha and 4,500 land owners. The programme was extended in the period 2014-2020 with currently eight projects in preparation involving 10,000 ha and 1,360 land owners. All costs related to the land consolidation procedures are subsidized with 75-85% coming from EU Rural Development Funds and 15-25% coming from national funds. Total investments (implemented and planned) is EUR 12.5 million (Daugaliene, 2016).

In addition to the eight programme countries, 13 of the 25 CEE countries have since the beginning of transition in 1990 introduced land consolidation instruments but are not yet having an operational land consolidation programme (figure 4). The driving factor behind introduction of land consolidation in these countries has mainly been land fragmentation and small farm and holdings sizes and the recognition among decision makers of the importance of these structural problems in agriculture. The typical introduction of land consolidation instruments in CEE has been through international technical assistance projects funded by donors and international organizations. In total, more than 50 international technical assistance projects from the middle of the 1990s and onwards have supported the introduction of land consolidation instruments in CEE. Projects have usually included the implementation of land consolidation pilot projects. In total, pilots have been implemented or are under implementation in 16 of the countries of which 12 belong to the group of countries not yet with a programme and four to the group of countries already with ongoing programmes. FAO has played a key role in the introduction of land consolidation in CEE through the preparation of policy guidelines, implementation of field projects in ten countries in the region so far.
It can be observed that the biggest remaining challenges in countries that are coming close to having operational national land consolidation programmes, such as Kosovo, Croatia, Bulgaria and Latvia, are to build up technical and administrative capacity to implement land consolidation projects in the field and to manage the programmes as well as to secure funding for the programme. The road from the first pilot to an operational land consolidation programme is often not straightforward (see Box 4 - FYR of Macedonia). Several CEE countries have experienced how political support can emerge and vanish again over night, e.g. after elections. The need for further international technical assistance over the years has been moving from support to the first pilots to supporting the preparation of national programmes. Finally, four of the CEE countries so far have had little or no experience with introduction of land consolidation.

Box 4 - Majority based land consolidation in FYR of Macedonia

From 2009 onwards, the first steps were made to explore land issues and to build up a land consolidation strategy, which was adopted in 2012. In 2013, the Parliament has adopted the Law on Consolidation of Agricultural Land as a legal basis for carrying out the land consolidation projects. The law provides procedures for two types of land consolidation, being 1) majority-based land consolidation with legally defined rules for decision making and 2) voluntary land consolidation. Five by-laws were prepared during the first half of 2014. In 2015/2016 (with FAO assistance), the law was tested in two pilot areas (one with voluntary approach in Konce and one with majority based approach in Egri). In Egri pilot, several versions of the re-allotment plan have been discussed with project participants in a participatory/iterative way as a basis for the final plan. According to the plan, the number of parcels will go down from 876 to 232 (around a factor 4). New land parcels will have more rational shapes and they are better accessible. The plan foresees in additional construction of access roads to parcels and improvement of drainage in part of the area. More than 85% of the participants agree on the plan.

Besides being confirmed on the general principles while implementing majority based land consolidation, the main conclusion is that the law failed the test. Legislation is now being amended through the ongoing FAO project, “MAINLAND”, funded by EU IPA funds. Main lessons learnt are:

- majority based land consolidation works well in a more or less homogeneous area in terms of production capacity
- land consolidation and infrastructure development is a powerful combination triggering participation
- a proper balance between a general law and more detailed by-laws is needed to ensure sufficient legal protection at one hand and flexibility at the other hand
- procedures for decision making should be fine-tuned carefully to ensure participation and project ownership while taking into account the institutional capacity
- specific effort is needed to deal with unsolved inheritance cases and distant owners (e.g. co-owners that have emigrated)
- securing other rights related to land (e.g. lease rights, mortgage, usufruct) requires that land consolidation legislation is supported by amendments or exemptions in several other laws

Parallel to amending the law the ongoing project supports mainstreaming of the land consolidation programme (design and implementation of projects), technical assistance and further capacity building during the period 2017-2020 (Mainstreaming, n.d.).

3.4 The failure of Land banks and land funds in Central and Eastern Europe

Land banks and land funds play an important role in an active land policy in several Western European countries among others Netherlands, France, Spain (Galicia), Portugal and Denmark. Land banking in this paper is defined as: “the intermediate process of buying, selling or leasing of land, by a public or public-private institution in order to
increase land mobility, to facilitate the rural land market in general and to pursue public policy targets related to sustainable rural land use in particular”. Approaches vary in different countries but active land banks and land funds are both supporting the implementation of land consolidation programmes and projects by increasing land mobility and also in some countries facilitating development of the land markets (Hartvigsen, 2014).

When looking at the development of similar land banks and land funds in CEE countries, the outcome so far is discouraging. Land banks and land funds have largely failed throughout the region, at least as a tool to support land consolidation instruments by making state land available for the re-allotment process and hence increase land mobility (Hartvigsen, 2015). None of the eight CEE countries with ongoing land consolidation programmes support the land consolidation instruments with land banks as it is the case in Western European countries. This is remarkable due to the fact that many countries in the region have a large stock of state land remaining after the finalization of land reform, which represents a unique possibility for improving farm structures through the combination of land consolidation and land banking. Experiences from both land consolidation programmes and pilots in CEE show that land consolidation projects, especially in a voluntary approach, are often hampered by low land mobility as usually few owners of agricultural land are interested in selling their land but very interested in reducing land fragmentation. This, however becomes very difficult when no “free land” is available from a land bank. The failure of land banking is first and foremost a failure in the overall land policy in the countries and a lack of coordination between land consolidation agencies and agencies managing the state agricultural land.

3.5 Other supportive instruments deserving more attention

Land lease markets

Better regulating and stimulating the land lease market can be an alternative for low annual turnover in the sales market and contribute to more equal access to land (e.g. landless people, small farmers, new entrants). A tailored framework can both benefit owners (longer term guarantee of revenues, maintaining land which is not worked anymore but is important from emotional point of view, higher lease prices and better tenure security in case of conflicts) and leaseholders (more stable part of the business, possibility to enlarge the farm without major investments, additional basis for accessing agriculture subsidies and loans and better protection in case of conflicts). Another important issue in this context is that extreme fragmentation including huge degree of co-ownership, blocks proper land market functioning. Nobody wants to buy a parcel of 0.3 ha in the middle of a large field while the parcel even has 15 co-owners that would never be able to agree on selling the land. A well-functioning lease market in such cases could be an alternative to come to bigger production units. As illustrated in figure 5, the importance of leasing varies across Europe. Studies within the EU report a broad variety ranging from 17% in Ireland, 50% in Sweden and more than 60% of share of rented land in the total utilized agricultural area in the case of Hungary and, Bulgaria (Swinnen et al, 2008 and Ciaian et al, 2012). In countries such as Czech Republic it is more than 80% and in Slovakia even more than 90% of agricultural land that is leased and not owned by the user (Swinnen and Vranken, 2009). Lease is also common in some countries outside the EU like Albania with a share of more than 95% (Cunga and Swinnen, 1997). European countries differ in the way and the level of regulation. It should be stressed that most countries that regulate lease also have options for short term lease or renting of land. While acknowledging the need for such short term forms, in this context, mid-term to long term lease arrangements are meant when discussing lease as an alternative for sales markets.
In assessing tenure security of land leasing, the following aspects are important:

- the tenancy duration: quite some countries have set minimum terms of 5-9 years
- the price range: many countries have minimum and/or maximum rental prices set by government agencies (Belgium, France, Greece and the Netherlands).
- right of renewal/inheritance: in several countries (e.g. France) the renewal (e.g. automatic renewal) and inheritance of rental contracts, are regulated
- mechanisms to resolve contract disputes: many countries have land specific bodies either at a local and/or national level, for example, Denmark, France and the Netherlands,
- pre-emption rights: many countries grant first refusal to private and public tenants through a pre-emptive right to buy land when offered for sale (e.g. Belgium, France and Sweden). Some countries extend pre-emptive rights to neighbouring farms or users, as in France, Hungary and Italy.
- lease rights in land consolidation: land consolidation procedures need to respect lease rights when making the reallocation plan either by shifting the right with the parcel of the owner or by establishment of a new lease right. Some countries (e.g. Netherlands) provide additional rights to lease holders in land consolidation (e.g. voting rights on the plan)
- land lease registration: some countries require registration by notaries, special chambers or farmers’ organisations (Italy) to be able to benefit from subsidies (and related to this the level of information / transaction costs)
In addition to establishing a solid land lease framework, a step further has been set in the region of Galicia in Spain by introducing a land bank focused on structural improvement via mediation in lease (see Box 5).

**Box 5 - Mediation in lease by the Galician Land Bank (Spain)**

The Galician Land Bank (Benvido/a ao Banco de Terras, nd.) responds to specific local characteristics and it targets particular population groups (e.g. female entrepreneurs and new entrants). In an overall package to stimulate and guide the land market it:

- focuses on mediating lease rights rather than property rights
- gives guarantees to landowners who enter their land in the land bank about their ownership
- secures the payment of the rent once the plot is leased
- arranges return of the parcel (after the lease term) in at least the same condition as before to the landowner.

The Land Bank of Galicia has a permanent and updated list of all available plots publicly accessible and online available. The list includes basic information on the plots (location, surface, land cover, infrastructure, price etc.) and maps are available as well. It offers standard contracts and referential prices.

So far, analysis of lease frameworks and consideration of options to establish bigger consolidated farms are limited in the CEE countries. Leasing tends to be informal / short term and improved lease frameworks are little considered when dealing with land fragmentation.

**Pre-emption rights**

Establishment of pre-emption rights is one of the options to guide the land market in rural areas. A pre-emption right or ‘right of first refusal’ prevents or restricts the landowner from entering into a land transaction with parties other than those to whom the right is granted until those people / organisations have declined the offer. The pre-emption right can be granted to either private persons such as farmers or to organisations that have the role to guide developments that benefit the interest of the broader society. Examples of pre-emption rights are illustrated in Box 6.
Box 6 - Examples of pre-emption rights related to rural land in Europe

1. Co-owners and lease holders have the first right of buying.

The main aim is protection of rights of co-owners and tenants related to continuity of agricultural purpose.

2. Co-owners, lease holders and neighbours have the first right of buying.

Like in 1, the main aim is protection of rights and continuity/improvement of agricultural production. The addition of neighbours usually is related to intentions to improve the local land structure, for example when farms are small scale and fragmented.

3. Certain (defined) farmers have the first right of buying, followed by a public agency.

The objective of this form is to direct the local land market towards a better structure, to keep land in the hands of farmers and to avoid speculation.

4. A government agency has the first right in land consolidation areas.

In this form, pre-emption rights are used to build up a reserve in a land consolidation area. By using the right, land can be purchased to be allocated to public infrastructure (access roads, drainage/irrigation canals) and to smoothen the process of swapping land.

5. A government agency has the first right for other public objectives.

Pre-emptive rights are used to realize public functions like nature conservation, forestry, preservation of cultural heritage or infrastructure development. Usually this form is used in particular designated areas that are changing the function from agriculture to another function (Van Holst, 2011)

Application of pre-emption rights, in general, is a sensitive issue since it touches the individual interest of the landowner and balances it with the interest of third parties or the society as a whole. A general principle therefore is to limit the use of pre-emptive rights and to create a clear and transparent framework and as little administrative burden as possible. The impact of pre-emptive rights to reduce land fragmentation should not be overestimated as it only regulates parcels offered on the market. To improve farm structures more pro-active instruments such as land consolidation and land banking might be needed. In CEE countries specific application could be considered mainly in support to other instruments and in specific situations that benefit the directly involved;

- granting tenants a pre-emptive right (first refusal) to buy the land they are leasing (in combination with better regulation of lease rights described under 3.4.2)
- pre-emptive rights to neighboring farms
- use of pre-emptive rights in combination with retirement schemes and/or in land consolidation areas
- pre-emptive rights by public authority in case of environmental/social/general interest?

Land taxation

The main types related to land market functioning are land/property sales tax (capital profit tax), purchase (registration) tax and usage/holding (real estate) tax (Swinnen, Caian and d’Arts, 2008). Usually, land sale taxes are devised to discourage land price inflation by absorbing land sale profits. Purchase (registration) tax and usage (real estate) tax affect the behavior of the buyer of agricultural land. Low tax levels of land/property sales tax and
purchase tax may facilitate more mobility but could have side effects of speculation on land by non-agricultural investors. High levels could lower annual turnover of land and lead to (partial) payments in ‘black money’. The usage (real estate tax) may influence the annual turnover of land as landowners are not happy to keep land that provides little or zero income and pay a high annual land tax. However, it is a fine balance because a negative effect could be that smallholders are forced into a situation where they cannot afford to keep their land because of high annual land tax. Inheritance legislation and related tax systems may also have impact on the land market and land fragmentation.

A wide variation on tax levels and tax exemptions is present in Europe (Swinnen, Ciaian, and d’Artis, 2008) while little comparative information on taxes is available for non-EU countries.

Little evidence is available that CEE countries actively pursue tax measures in relation to dealing with land fragmentation. The challenge is to find the right balance preferring positive triggers to stimulate action rather than negative triggers of restriction or penalizing (which are usually difficult to enforce/maintain). The impact of tax measures is mainly supportive to other measures and should not be overestimated.

**Transaction costs**

The level of registration costs and the procedures needed to register can seriously hamper land markets, especially in fragmented situations. Although it affects both the sales and lease markets the highest impact is on sales markets. Other formal or informal mechanisms dealing with land rights will come into place when transactions are too expensive. High registration / transaction costs and complicated procedures automatically leads to informal transactions which again are less secure, leads to conflicts and hamper agricultural and rural development. Land consolidation either voluntary or majority based, can be seriously hampered when overall agreements on a range of transactions is split into individual transactions, all requiring transaction costs and taxes. The power of land reallocation is that the overall agreement is much more than the sum of individual transactions. A proper legal framework treats a land consolidation as one transaction with a simple transaction cost structure.

To create incentives, specific exemptions are to be considered related to the instruments described e.g. exemption of registration costs and property transfer tax in land consolidation or land swapping, exemption of property transfer tax while using of pre-emptive rights for co-owners, leaseholders, neighbors, and thresholds or specific exemptions to avoid fragmentation through inheritance.

**Spatial planning regimes and land markets**

Land use is restricted by spatial planning and regulations. Although in most countries people can freely buy land, the use of land is restricted by spatial planning, both by the use itself and by for example environmental legislation. As stated in section 3.1 the restrictions related to land use lead to segmented markets in which prices for an important part are set by local offer and demand. The price of land depends on the expected profits that can be gained in future. In rural areas with a clear spatial plan and proper enforcement (e.g. avoiding illegal construction) prices will be determined by agricultural economics. Close to urban centers, agricultural land markets can function separate from the urban land market although its functioning may be influenced by the probability of (expected) changes of spatial plans for urban expansion. This attracts speculators, leading to higher prices in urban fringes or lowering of turnover in expectation of better conditions to come. In any case the agricultural land market benefits from clarity, stability and proper enforcement by spatial planning regimes.
3.6 Conclusions

Governments throughout Central and Eastern Europe have in recent two decades mostly recognized the need to address the structural problems in agriculture with land fragmentation and small farm sizes in addition to normal land market functioning. This has led to the formulation of development policies and to the introduction of land management instruments such as land consolidation and land banking. However, turning this recognition into clear objectives and dedicated instruments varies very much between countries. Some countries deal seriously with land fragmentation while the majority does not have strategies and instruments in place. As an overall average picture progress is slow and output is limited.

The following conclusions can be drawn:

1. It can be concluded that performance and (inclusive) development of rural land markets in CEE countries needs more attention in order to transform small-scale fragmented farms into commercial family farms.
2. Countries that are implementing specific programmes like land consolidation and land banking are challenged to reformulate them to reach clearer focus and better coherence in the sense that:
   - Introduction of particular instruments should preferably be proceeded by national strategies with clear objectives and target groups;
   - Land consolidation instruments should be better supported by and coordinated with other instruments like e.g. better management of state/public land, tax measures, clear spatial planning frameworks etc.;
   - Little attention has been paid to lease markets. Better regulating and stimulating the lease market can be an alternative for low annual turnover in the sales market and contribute to more equal access to land (e.g. landless people, smallholders).
4 The Sustainable Development Goals and Land governance for development

4.1 Mainstreaming of land governance in development strategies

As discussed in section 3.3, Governments throughout Central and Eastern Europe increasingly recognize the need to address the structural problems of land fragmentation and small farm sizes. This has led to the introduction of some land management instruments such as land consolidation and land banking. As discussed in section 3, the introduction of land governance instruments is properly mainstreamed in some countries while the majority of countries, especially outside EU, have little or no instruments in place with land is being neglected in strategic policy making.

Setting up coherent policies on land requires a focus on objectives instead of on instruments and it needs disaggregation of the policy objectives towards specific groups. This particularly counts for measures ‘guiding’ and ‘complementing’ the land market in which particular goals are pursued for particular target groups. Although international standards such as the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT) are present, CEE countries miss references and guidelines on how to set up such frameworks and need technical assistance in this field. The EU so far has been reluctant to develop guidelines since land policies are assumed to be national policies in which countries and / or regions can decide themselves what type of farming and farmers to focus on. Recently this led to discussion and the adoption of the European Parliament resolution of 27 April 2017 on ‘The state of play of farmland concentration in the EU: how to facilitate the access to land for farmers’ (European parliament, 2017) with a range of initiatives to harmonize and structure land related policies better. This discussion is relevant for the wider European region since EU policies focused on member states also set the tone for EU neighborhood and enlargement policy.

Meanwhile solutions are being explored to come up with models for agricultural sector growth. For example in Armenia, two interrelated recent studies commissioned by World Bank propose a different way forward. The conclusion is drawn that the ‘sector has not changed substantially in the last 20 years. Growth has been achieved by improving the productivity of small-scale farms that continue to use the semi-subsistence production systems initiated after economic liberalization and land privatization in the late 1990s. Low value cereal and livestock commodities still predominate and Armenia’s known capacity to produce and export high value crop and livestock products has yet to be fully exploited. By focusing on input subsidies for the smallest farms rather than facilitating farm enlargement and building the institutional infrastructure for knowledge transfer, government has preserved this structure rather than driving its transformation’ (Christensen, 2017).

Key element for such growth model is a focus on developing commercial family farms, and farmers willing to invest in modern farming technology and the knowledge needed to use this technology effectively.

Proposed building blocks for such growth model are:

- A broad-based medium term programme to facilitate farm enlargement through the land market, supported by land consolidation, land banking and other measures.
- High levels of public and private investment in knowledge transfer systems for farmers and agri-business.
- Continued government and donor support to develop and strengthen value chains as the basis for increased commercialization of agriculture and increased agricultural exports.

The Food and Agriculture organization of the United Nations (FAO) has as one of four regional priorities in Europe and Central Asia to support sustainable and inclusive growth for farmers and the rural population with emphasis on smallholders and family farms. This support is at regional and country level provided under the programmatic umbrella of the Regional Initiative on Empowering Smallholders and Family Farms for Improved rural Livelihood and Poverty Reduction (Empowering Smallholders, n.d.) The Regional Initiative has two components:
1. Support policy development and innovative practices for increased sustainable agricultural production
2. Support to improvement of rural livelihood and enhanced access to natural resources

For farm enlargement, a comprehensive framework of mutually supportive instruments and measures has been suggested for Armenia, illustrated in figure 6 (Van Holst, 2017).

Figure 6: Potential measures for farm enlargement and consolidation in Armenia (Van Holst, 2017)
As shown in the example from Armenia, land governance could be developed as a comprehensive framework of mutually supportive instruments and measures that:

1. **Stimulate** the sales and lease land markets in rural areas to function as smooth as possible, creating a proper institutional set up with clarity of rights, procedures and low transaction costs. Measures are typically carried out countrywide.

2. **Guide** the land market in a sense that publicly supported goals for land use are reached in an ‘organic’ and transparent way. In addition to general instruments these measures are strongly related to particular areas (e.g. irrigated or other high potential cultivated areas) or target groups (e.g. a certain farm size, female or young entrepreneurs) guiding the market in a certain direction. Particularly land consolidation schemes can when carefully designed give an extra boost to scaling up and restructuring of farms. Planning in land consolidation project areas also serves a purpose of ‘cleaning up’ the land register and mediating to formalize lease arrangements. These are other issues hampering the development of agricultural land markets. By clarifying the situation at the same time security of tenure rights is improved.

3. **Complement** the land market by other measures (e.g. using state land effectively). In many situations, including in Armenia, reorientation of public land management is needed to support the same objective both in and outside of land consolidation project areas.

### 4.2 SDGs and their linkage to land fragmentation

The 2030 Agenda for Sustainable Development contains of 17 goals (SDGs) and 169 targets (Sustainable Development Goals, n.d.).

When looking into the SDGs and the 169 SDG targets, it is clear that several of the targets are relevant to take into consideration when formulating policy to support and address the structural problems in agriculture with land fragmentation and small average farm sizes in many CEE countries. An overview of the most relevant targets is provided in figure 7. It is important to ensure that support to policy formulation addressing the structural problems in agriculture and developing the agricultural land markets take into consideration the individual SDG targets mentioned in figure 7. However, it is just as important to take into consideration that achieving the Sustainable Development Goals is a complex process that will require an integrated approach addressing several issues at the same time.

A total of 232 indicators are currently being developed with a classification into 3 tiers (IAEG-SDGs, 2016). Efforts are being done to lift indicators related to access of land (indicators 1.4.2 and 5.a.1) to ‘tier I’ status to ensure that the indicators will be part of the formal monitoring of the SDGs. By achieving the Tier I status, the indicators on land tenure gain importance increasing the chance of being integrated in national development plans/frameworks. In this process (of “nationalization” of SGDs), countries will set priorities for working and reporting on specific targets and indicators.

The targets related to land access create a sense of urgency particularly relevant in the context of land fragmentation. Achieving of any development goal towards increased production and farm income is in risk of being jeopardized when the basic structures of land ownership and farm size are being neglected. As reasoned in section 3, policies in CEE countries require acknowledgement of the need to (further) secure tenure rights of both men and women and the subsequent measures to improve land tenure security and land structures. Some countries outside the EU (e.g. Serbia and FYR Macedonia) partly recognize this need by having a national land consolidation programme, measures or strategy (refer to section 2). Such land consolidation approaches usually serve multiple objectives and fit well to contribute to the above mentioned SDGs in an integrated approach. However, as concluded in section 3, land consolidation approaches have often been implemented too much stand-
alone without being supported by other supportive measures that remove barriers and stimulate mobility in sales and lease markets. So also land consolidation strategies could benefit from a closer look at the SDG targets and indicators.

<table>
<thead>
<tr>
<th>SDG</th>
<th>SDG Target</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Target 1.4</td>
<td>By 2030, ensure that all men and women have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property.</td>
</tr>
<tr>
<td></td>
<td>Target 1.b</td>
<td>Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies.</td>
</tr>
<tr>
<td>2</td>
<td>Target 2.3</td>
<td>By 2030, double the agricultural productivity and incomes of small-scale food producers.</td>
</tr>
<tr>
<td></td>
<td>Target 2.4</td>
<td>Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change.</td>
</tr>
<tr>
<td>5</td>
<td>Target 5.a</td>
<td>Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property.</td>
</tr>
<tr>
<td></td>
<td>Target 5.b</td>
<td>Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.</td>
</tr>
<tr>
<td>8</td>
<td>Target 8.2</td>
<td>Achieve higher levels of economic productivity through diversification, technological upgrading and innovation.</td>
</tr>
<tr>
<td></td>
<td>Target 8.3</td>
<td>Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises.</td>
</tr>
<tr>
<td>15</td>
<td>Target 15.1</td>
<td>By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.</td>
</tr>
<tr>
<td></td>
<td>Target 15.3</td>
<td>By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.</td>
</tr>
</tbody>
</table>

Figure 7: Most relevant SDG targets when addressing structural problems in agriculture with land fragmentation and small farm sizes.

4.3 SDG indicators on land tenure in CEE context

A closer look to all the indicators of the targets of figure 7 would be relevant in the context of land fragmentation in CEE countries. In this paper we limit ourselves to the indicators of targets 1.4 and 5.a on access to resources since these are believed to be of key importance in linking the SDGs with strategies dealing with land fragmentation.
Indicator 1.4.2: Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure

Indicator 5.a.2: Proportion of countries where the legal framework (including customary law) guarantees women’s equal rights to land ownership and/or control

Addressing the structural problems in agriculture with land fragmentation and small farm sizes, providing access to land and securing legitimate tenure rights is as mentioned a precondition for achieving the SDG targets in figure 7 including Target 2.3 on doubling both the agricultural productivity and incomes of small-scale food producers by 2030. The indicators are:

Indicator 2.3.1: Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size

Indicator 2.3.2: Average income of small-scale food producers, by sex and indigenous status

Securing tenure rights is a condition for the realization of responsible land governance that enables efficient and effective appropriation and use of land, transfer by market functioning, land consolidation or other readjustment approaches, and enhancing the productive use of land.

The five guiding principles of responsible tenure governance from the VGGT serve to understand properly the meaning of ‘secure tenure rights’ of indicators 1.4.2 and 5.a.1. VGGT describe the obligations of States as to:

1. Recognize and respect all legitimate tenure right holders and their rights.
2. Safeguard legitimate tenure rights against threats and infringements.
3. Promote and facilitate the enjoyment of legitimate tenure rights.
4. Provide access to justice to deal with infringements of legitimate tenure rights.
5. Prevent tenure disputes, violent conflicts and corruption.

The five principles basically deal with two different things: 1) securing legitimate tenure rights and 2) enable enjoyment of (the secure) tenure rights. The first is a precondition for development, e.g. related to land market development, while the second is the development itself, e.g. the option to purchase additional land on the local land market. A cross cutting issue throughout the VGGT is that all policies and laws that ensure tenure rights should be non-discriminatory and gender sensitive.

CEE countries meet in varying degrees the above mentioned principles.

In terms of gender equality, women in the CEE region in general represent a minority of registered land owners, although sex-disaggregated data on land registration are not yet available in the region. Even if gender equality in formal sense is secured by general legislation such as for example civil codes or family codes, the limited registration of women as land owners limits de facto women’s enjoyment of their existing ownership rights over land. There is the tendency both by (male) farmers and civil servants to register only one member of the household (usually oldest male) as land owner, which provides a limitation of women’s de facto enjoyment of their existing ownership rights over land.
In general terms emphasis in CEE has been on cadastre systems and land registration as a precondition for smooth and transparent market functioning. Main focus in this work has been on the infrastructure needed while little attention was paid to solving issues like unsolved inheritance, informal agreements not yet registered etc. Some countries meet many of the five principles described in the VGGT (e.g. Czech Republic) while others have a long way to go (e.g. Ukraine). In analyzing the relevance, it is important to note that above mentioned principles as described in the VGGT apply both to sales and lease markets.

Some of the identified issues occurring in higher or lower degree depending on the country, are:

- Not all ownership rights are registered (e.g. less than ¼ of agricultural land parcels in Georgia).
- Registration data on ownership are not up to date due to informal transactions.
- Registration data on ownership are not up to date due to unsolved inheritance cases.
- Frequent occurrence of co-ownership and joint ownership.
- Land not being accepted as collateral for bank loans.
- No direct road access to land parcel (e.g. being part of a larger consolidated plot before restitution).
- Land transaction procedures being too bureaucratic leading to high transaction costs hampering full enjoyment of tenure rights (i.e. limited functionality of agricultural land market).
- Lack of market information like average prices, reference prices.
- Disputes over parcel boundaries or overlapping / mismatches of boundaries as a result of different data origins.
- Barriers in buying / leasing or exchanging with state land.
- Barriers in buying / leasing of land in general (e.g. legislation preventing active use of state land fund to reduce land fragmentation and increase farm sizes).
- Lease regulations being poorly developed leading to tenure insecurity.
- High percentage of informal lease.
- Uneven relations between owners and leaseholders.

All these factors hamper sales and lease market functioning and/or transactions through organised land consolidation approaches. Poor functioning formal land markets lead to informal agreements that are never registered and results in weak tenure rights and increase risk of conflicts and infringements. This hampers solving of land fragmentation and growth of small size subsistence farms to medium size commercial farms thereby preventing modernization and professionalization of farming. Land consolidation is hampered by this but can also be seen as an opportunity since land consolidation has the effect of ‘cleaning up’ the property situation. In an intensive and participatory process other - sometimes long pending - issues like unsolved inheritance cases, overlapping maps, mistakes in land registration, unclear land rights and informal lease, get settled and formalized to achieve the best outcome of the land consolidation process. In this way land consolidation serves as an engine to solve other problems leading to a continued higher level of land mobility after land consolidation and hence to a better functioning agricultural land market. A clear status of the land and larger plots stimulate to invest and land being easier accepted as collateral. Last but not least, contemporary land consolidation is integrated by nature and balances the realization of different potentially conflicting targets of the SDGs such as for example 2.3 (increase food production and farm income) and 15.1 (conservation, restoration and sustainable use of ecosystems).

4.4 Integrating land market development into national strategies

The importance of securing all five guiding principles of VGGT in the framework of the 2030 Agenda for Sustainable Development provides an excellent opportunity to integrate the issue of land market development more firmly into policies on agriculture and rural development in CEE countries. Efforts so far in CEE are contributing in an integrated way to achieving targets as formulated in the SDGs. Approaches however need rethinking and re-
planning since the intensity of operational programmes is often too little and the measures too limited to create meaningful impact.

National and international organisations are therefore recommended to:

- Link clearly the objectives of national development strategies to the SDGs
- Include or strengthen in such strategies sections on farm structures and rural land market development

Such rural land market development sections should not be limited to particular instruments but cover the entire framework that governs land ownership, land lease, land transactions and taxation.
5. Conclusions and the way forward

Land fragmentation in all its dimensions remains widespread throughout Central and Eastern Europe. Although farms sometimes benefit from having several parcels, in general land fragmentation hampers modernization of family farms and proper connection to agricultural markets. This has impact on the individual household and the rural community as a whole. Land markets, even when properly regulated and properly functioning, are often unable to correct the situation. Several measures and instruments are needed to facilitate the land markets to function adequately and to accelerate consolidation and growth of small farms. Analysis of policy initiatives in CEE countries illustrates that options for solving the structural problems of land fragmentation and small scale of farms have concentrated on particular instruments like land consolidation and land banking with varying rates of success. To create more impact, comprehensive frameworks of mutually supportive instruments for rural land development should be developed. The Sustainable Development Goals (SDGs) provide a new incentive and an excellent opportunity to integrate land and farm structure related goals into national development strategies of CEE countries. The SDG indicators 1.4.2 and 5.a.2 dealing with access to land, create a sense of urgency particularly relevant in the context of land fragmentation. Achieving of any development goal towards increased production and farm income is in risk of being jeopardized when the basic structures of land ownership and farm size are being neglected. In this context rural areas in CEE faces several challenges to 1) secure further legitimate tenure rights and 2) to enable the full enjoyment of (the secure) tenure rights. Disaggregation of policy ambitions is needed towards specific groups like small, young and female farmers and landowners to ensure (de facto) enjoyment of their tenure rights. To support the development of proper policy responses, several actions are needed.

Knowledge and awareness raising among policy makers and planners

Improvement of policies and strategies starts with awareness raising about the importance of land tenure and land market development as structural element of development. Both the VGGT and the development and mainstreaming of SDG indicator 1.4.2 on land tenure are relevant opportunities to link to. The FAO Regional Office for Europe and Central Asia and LANDNET are suggested to take the lead in this in the region. Important element of such advocacy is to link international events more closely to farmers’ organisations as they may build up the pressure from the ground. Besides National governments e.g. Ministries of Agriculture more intense dialogues are needed with representations of the EU and the World Bank in the CEE region. Key in such events is to provide clear evidence of stagnating trends supported by proper story telling about real cases on the ground.

Research, analysis and exchange by land governance professionals

A number of issues needs be researched deeper like a comparative study on land lease frameworks with central questions ‘how can lease frameworks be improved in order to consider leased land as an integral and secure part of a farm’s economic model?’ and ‘how can such land lease be promoted as a low-cost alternative for farm enlargement?’. Other subjects are the interrelation between ‘pre-emption rights, land taxes and land mobility’, and ‘efficient ways to deal with joint, co- and absent landowners’.

Exchange between experts should be intensified and become daily practice instead of being concentrated around international events. FAO and LANDNET are considering to start ‘OFF LANDNET’, an Online Forum For LAND Networking in which professionals in a helpdesk setting support each other in assessing policy options, translation into legal frameworks etc. It is suggested to intensify research, analysis and exchange via international projects with clear targets, clear outputs and strict deadlines and well linked to the networks of relevant professionals like FIG, WPLA, LANDNET etc. Joint effort needs to be done to put land on the agenda of major international exchange and innovation programmes like H2020, TAEIEX etc.
Pilots to support SDG linked strategies for land market development

National governments need guidance and support in integrating land market development in their policies and strategies. It is recommended to start a number of ‘Farmland Structure Development (FSD) pilot zones’. These pilots are objective based instead of instrument based. A broad range of services to stimulate and guide the rural land market are offered. Activities included are to clarify titles, reduce co- and joint ownership, formalize lease arrangements, solve unsettled inheritance cases, exchange and consolidate land and to increase farm size by better market functioning and use of public land. Instrumental and legal advice are provided as part of the pilot as well as active mediation and facilitation capacity. In situations where land consolidation is feasible, technical assistance will be provided to develop land consolidation plans. Such pilots include budgets to cover process, registration and transaction costs as well as the technical assistance needed. Experience gained during the pilots will be used to build strategies for mainstreaming FSD Zoning programmes. This mainstreaming includes development of new instruments and proper legislation (e.g. tax and registration waivers in dedicated zones).

International cooperation

Technical assistance and capacity building through international support are needed to develop frameworks for analysis, programming and target setting and to apply these frameworks in the regular cycle of policy making and planning.

Cooperation with World Bank and UN Habitat is suggested to follow closely indicator development and to incorporate in a unified way indicator development in the various strategies. Key in this is a proper description of 'secured land tenure' via BOTH legally recognized documentation AND people's perception of their rights as being safe and tradeable.
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