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FAO experiences with land market development and land management
instruments in Eastern Europe and Central Asia

Abstract

Most countries in Eastern Europe and Central Asia have farm structures characterized by excessive land fragmentation and small average farm sizes. Well-functioning agricultural land markets are a precondition for agricultural and rural development in general. However, agricultural land markets remain weak and still face many constraints in the region. Land management instruments such as land consolidation and land banking in addition to facilitating agricultural development also contribute to land market development. The Food and Agriculture Organization (FAO) of the United Nations is providing technical assistance to the member countries

Morten Hartvigsen – Maxim Gorgan: FAO experiences with land market development and land management instruments in Eastern Europe and Central Asia. *Journal of Agricultural and Environmental Law* ISSN 1788-6171, 2020 Vol. XV No. 29 pp. 85-103, <https://doi.org/10.21029/JAEL.2020.29.85>

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<https://doi.org/10.21029/JAEL.2020.29.85>

in Eastern Europe and Central Asia related to development of agricultural land markets and introduction of land management instruments such as land consolidation and land banking.

Keywords: Land market development, land management instruments, land consolidation, land banking, Eastern Europe and Central Asia.

1. Introduction

The farm structures in most countries in Eastern Europe and Central Asia have changed completely after land reforms were implemented at the beginning of transition in the 1990s. In some countries private ownership to agricultural land was the outcome of land reforms while in most countries in Central Asia farmers have been allocated use rights to the agricultural land that remained in state ownership. Land rights have been formally recorded in land registries and cadastre agencies. This has in most countries provided the basic infrastructure for formal agricultural land markets to function.

In section 2 of this paper, the current farm structures and their linkage to the land reforms implemented in the 1990s are explained with focus on the structural problems in many countries with excessive land fragmentation and small average farms sizes.

Well-functioning agricultural land markets are a precondition for agricultural and rural development in general. Section 3 is about development of agricultural land markets in the region. In order to be able to support and facilitate development of agricultural land markets, it is important to have in place a conceptual framework. The five stage development model of Williamson et al. (2010) is explained in section 3.1, while section 3.2 is a discussion of existing constraints for development of formal agricultural land markets in Eastern Europe and Central Asia. In section 3.3 the current development stage of the 18 FAO programme countries and territories in the region is discussed through the application of the suggested conceptual framework.

A number of land management instruments can be applied to address the structural problems with land fragmentation and small farms sizes and also many of the other identified constraints for land market development. These land management instruments are discussed in section 4 and include land consolidation, land banking, mediation of lease and also active management of state owned agricultural land. The Food and Agriculture Organization of the United Nations (FAO) has played a leading role in the introduction of the mentioned land management instruments in the region and is actively supporting development of formal agricultural land markets.

2. Farm structures in Eastern Europe and Central Asia

The countries in Central and Eastern Europe (CEE) and Central Asia (CA) began a remarkable transition from centrally planned economies towards market economies in 1989 when the Berlin Wall fell and the Iron Curtain lifted. Land reforms with the objective to privatize and/or individualize state-owned agricultural land managed by large-scale collective and state farms were high on the political agenda in most countries in the region.¹

¹ Hartvigsen 2013a.

The two fundamentally different overall approaches to land reform in the CEE countries have been restitution of land rights to former owners and distribution of land rights to the rural population. Many and often contradictory factors such as historical background, land ownership situation at the time of collectivization and ethnicity have been important while designing the land reform process in each country.² In the three Baltic countries, agricultural land was restituted to the pre-WWII owners and their successors and resulted in an ownership structure similar to that before 1940. Also in the Czech Republic and Slovakia agricultural land was restituted to the former owners. In Poland and the countries in ex-Yugoslavia, the collectivization had failed and 75-80 percent of the agricultural land remained in private ownership and was used by small family farms during the socialist era and land reforms have had little impact on the farm structures in those countries. In Albania, Moldova, Armenia, Georgia and Azerbaijan the former state owned agricultural land was in the 1990s distributed equally to the rural population.

In most of the CEE countries, the land reforms after 1989 have completely changed the farm structures that existed during the socialist era while in other countries, the farm structures remain basically the same. In the Western Balkans, Caucasus and Central Asia, farm structures are dominated smallholders and small family farms.³ In countries such as Albania, Armenia, Bosnia and Herzegovina, Georgia, North Macedonia and Kyrgyzstan the average farm sizes are between one and three hectares and between 95 and 99 percent of all farms are smaller than 5 ha. Small family farms have become the backbone of the post transition farm structures in Central Asia.⁴ Other countries such as Serbia, Moldova and Kazakhstan have dualistic farm structures with many small family farms and few large-scale corporate farms.

In addition to small average farm sizes a characteristic of farm structures is in many countries excessive fragmentation of both land ownership and land use. The level of fragmentation of both land ownership and land use in the 18 countries, where FAO provides technical assistance in Europe and Central Asia, is assessed in Figure 1.

The structural problem with excessive land fragmentation and small farm sizes is hampering agriculture and rural development and hence also most initiatives in support of development.⁵ Small-scale agriculture production is ongoing mostly in subsistence and semi-subsistence farms where most of the production is consumed in the household and the farms have weak access to markets and food value chains. Farms have low productivity and low competitiveness.

² Hartvigsen 2013b.

³ FAO 2020a.

⁴ Lerman & Sedik 2018.

⁵ Hartvigsen 2019.

COUNTRY	LEVEL OF FRAGMENTATION OF OWNERSHIP IN AGRICULTURAL LAND	LEVEL OF FRAGMENTATION OF LAND USE IN AGRICULTURAL LAND
Albania	High	High
Armenia	High	High
Azerbaijan	High	High
Belarus	Low	Low
Bosnia-Herzegovina	High	High
FYR Macedonia	High	High
Georgia	High	High
Kazakhstan	Low	Low
Kosovo*	High	High
Kyrgyzstan	Low	Low
Moldova	High	Medium-high
Montenegro	High	High
Serbia	High	High
Tajikistan	Low	Low
Turkey	High	High
Turkmenistan	Low	Low
Ukraine	Low-medium	Low
Uzbekistan	Low	Low

Legend

- Low
- Low-medium
- Medium-high
- High

Figure 1: Level of land fragmentation in the FAO Regional Office for Europe and Central Asia (REU) programme countries⁶

Land fragmentation and small farm sizes are also among the root causes of out-migration from rural areas and in several countries in the region a main reason for arable agricultural land being abandoned. In *Armenia*, according to the 2014 Agricultural Census, 33 percent of the land of family farms and 38 percent of the land of corporate

⁶ References to Kosovo shall be understood in the context of UN Security Council Resolution 1244 (1999) and Hartvigsen, 2019.

farms is abandoned.⁷ Land abandonment is widespread in most Western Balkan countries. In North Macedonia, also around one-third of all arable agricultural land is unutilized. In Bosnia and Herzegovina, the similar figure is 45 percent. This has created an unutilized potential for local economic growth by strengthening local food production. This is an issue that has gained further importance in consequence of the COVID-19 pandemic.

3. Constraints for development of agricultural land markets in Eastern Europe and Central Asia

Well-functioning agricultural land markets are a precondition for agricultural and rural development in general. Regarding land markets in general there is a general consensus that in order for a land market to work, there must be (a) a clear definition and sound administration of property rights, (b) a minimum set of restrictions on property usage consistent with the common good, (c) the transfer of property rights must be simple and inexpensive, iv) there should be transparency in all matters and (d) there must be an availability of capital and credit.⁸ A precondition for the existence of formal land markets is that land rights are formally registered in a land registry.

However, as we will see in the following, agricultural land markets in most countries in Eastern Europe and Central Asia and their development suffer from many different constraints.

3.1. Conceptual framework for land market development

In order to be able to support and facilitate development of agricultural land markets, it is important to have in place a conceptual framework. Building on the development model of Williamson et al., land markets are seen to develop through five evolutionary stages⁹ (See Figure 2). Most nations will experience more than one stage at a time, and find that smooth transition from simple to complex markets is difficult to manage.

The basis for development (stage 1 in the model) is the existence of agricultural land. In stage 2, formal land rights are established and recorded in the land registry. In most countries, the outcome of land reforms was private ownership to most of the agricultural land, in particular the arable agricultural, and private ownership to property including agricultural land is protected by the Constitutions in these countries. However, tradable land rights do not necessarily have to be to in the form of private ownership but can also be formally registered and protected use rights to agricultural land that is owned by the State. In principle also private use rights to state land can be traded at the formal agricultural land market. These first two stages of the model are seen as preliminary stages.

⁷ FAO 2017.

⁸ Dale & Baldwin 2010.

⁹ Williamson et al. 2010, 151.

In stage 3 of the development model land trading is taking place but often between community members (e.g. relatives and neighbours) that know each other and the land market activity (number of transactions) is still relatively limited. The commoditization of agricultural land is beginning, offering a wide range of rights, powers and opportunities. The better these are organized and understood, the better the market will operate.

With stage 4, the land market becomes more mature and the number of land transactions is increasing. Trading takes also place between parties that are not well connected in advance. Also in stage 4 credit mechanisms begin to be available. Land rights are beginning to be converted into tradable commodities.

In stage 5 of the land market development – the complex commodities market stage – the land market is fully developed and fully integrated in the economy, land is accepted as collateral and leverages its wealth acceleration role. The system relies heavily on the cognitive capacity of society to understand and use tradable commodities, the rule of law, government capacity, and national ability to compete for capital in international marketplaces.

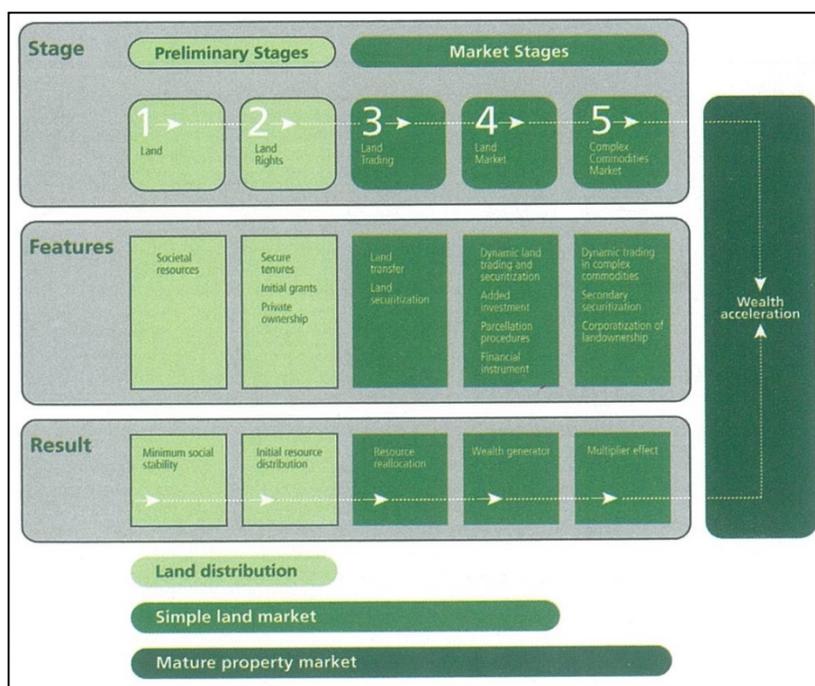


Figure 2: The evolutionary stages in development of formal land markets¹⁰

¹⁰ Williamson et al. 2010, 151.

3.2. Constraints for development of formal agricultural land markets

It is a precondition for the existence of a formal agricultural land market that land rights are formally recorded in a land registry and that the information in the land registry is kept updated when there are changes. In most of the countries where FAO is providing technical assistance in the region (see Figure 1), the first registration of formal land rights is almost completed. In many countries this was done as part of the finalization of the land reform process. An exception is Georgia, where only around one-third of all land parcels are still formally registered. In addition, there are in several countries smaller or larger ‘pockets’ of unregistered land.

Following the land reforms from 1990 onwards, land administration systems including cadastre agencies and land registries were built up in the countries with large-scale donor support. Land rights were formally registered after land reform and land markets were supported, including for agricultural land. From the mid-1990s onwards, the World Bank has funded 42 land projects in 24 European and Central Asian (ECA) countries.¹¹

Different types of constraints hamper the development of agricultural land markets. The constraints and the seriousness of the constraints vary from country to country and sometimes from village to village. In the countries in ex-Yugoslavia, the formal land markets were very much restricted and land registration was largely neglected during the decades of collectivization.¹² The situation has not changed much since Yugoslavia dismantled and new independent countries emerged. A large percentage of the formally registered owners have been deceased for decades and inheritance remains unresolved in the families. Unresolved inheritance is widespread in many countries in Eastern Europe and Central Asia.

Another important constraint in many countries is the common practise of informal land transactions. Seller and buyer are in agreement on a transaction with agricultural land and its conditions but the transaction is often not formally registered in the land registry. Among the main reasons for this are complicated transaction procedures, high transaction costs (compared to the value of the land), land transaction taxation and corruption. The above mentioned informalities are preventing the land parcels from accessing the formal agricultural land markets.

Experiences from FAO land consolidation pilot projects in Albania and Azerbaijan show that most of the agricultural land sales in the pilot communities after the land distribution in the 1990s have not been formally registered. This undermines the sustainability of the formal land administration systems¹³ and the high degree of informality in the land markets is then again leading to insecure land rights and risk of disputes and conflicts that are very difficult to solve in the court system after decades of informality. The above mentioned large-scale investments in building land registration systems in the region are undermined as property rights fall out of formal registration into informality, in particular in rural areas where the land value is much lower than in urban areas.

¹¹ Törhönen 2016.

¹² Hartvigsen 2019.

¹³ Haldrup 2011.

Furthermore, experiences have shown that a large list of more “technical” land registration problems exist in many countries, which are also slowing down or even preventing land market activities. Some of them are easy to resolve such as misspelled names of owners or new name of owner after marriage. Inconsistency between the property titles and the reality on the ground (e.g. mismatches of surface area, boundary inaccuracies) are more complicated to solve. Such situations exist with different frequency in all the countries in the Eastern Europe and Central Asia. In Albania, discrepancy between the title document, the so-called Tapi, issued during the land distribution in 1991-1992 and the first registration in the mid-1990s requires resurveying in order to bring the area in compliance with the second registration.¹⁴ In Azerbaijan, the situation is quite similar and existing inconsistencies in the area and size of parcels most be eliminated through new surveying at the expense of the landowners before a formal land transaction can be registered.¹⁵

All the above mentioned constraints need to be resolved before the land parcels can enter the formal agricultural land markets.

3.3. Status for development for formal agricultural land markets

The development of formal agricultural land markets are at very different stages in Eastern Europe and Central Asia but markets are in general still weak, e.g. compared with EU member countries. In Figure 3, the 18 FAO programme countries and territories are assessed against the five development stages in Figure 2.¹⁶ With the existence of agricultural land in all the assessed countries, they have all default reached stage 1 of the model.

In all countries and territories, except in Belarus, land rights (stage 2) have been established to agricultural land. In Belarus, agricultural land remains in state property and use. Belarus is the only country in the region where agricultural land is both owned and managed by the state. The agricultural sector is centrally planned and represented by state-owned agricultural enterprises. Private ownership exists only to small household plots around the villages distributed in the final years of the Soviet Union and the 1999 Land Code confirmed that citizens may own up to one ha of agricultural land in a household plot and up to 0.25 ha of agricultural land under and around a private house.¹⁷

¹⁴ Hartvigsen 2013a, 21–24.

¹⁵ Hartvigsen, Ismayilov & Gorgan 2020.

¹⁶ Williamson et al. 2010.

¹⁷ Hartvigsen 2013a, 44.

	Country	Stage 1 Land	Stage 2 Land rights	Stage 3 Land trading	Stage 4 Land Market	Stage 5 Complex commodities market
1	Albania	√	√	√		
2	Armenia	√	√	√	√	
3	Azerbaijan	√	√	√		
4	Belarus	√				
5	Bosnia-Herzegovina	√	√	√		
6	Georgia	√	√	(√)		
7	Kazakhstan	√	√			
8	Kosovo*	√	√	√		
9	Kyrgyzstan	√	√	√		
10	Moldova	√	√	√	√	
11	Montenegro	√	√	√		
12	North Macedonia	√	√	√	√	
13	Serbia	√	√	√	√	
14	Tajikistan	√	√			
15	Turkey	√	√	√	√	
16	Turkmenistan	√	√			
17	Ukraine	√	√			
18	Uzbekistan	√	√			

Figure 3: Assessment of development stages of formal agricultural land markets in Western Balkans, Eastern Europe and Central Asia¹⁸

As mentioned in Section 3.1, countries reach stage 3 when simple land trading has started to take place often between relatives and neighbours and the land market activity is still relatively limited. Most of the countries in Eastern Europe and Central Asia have reached this stage. The exceptions are Belarus (as already mentioned still in stage 1, Kazakhstan, Tajikistan, Turkmenistan, Ukraine and Uzbekistan, so mainly countries in Central Asia. Ukraine implemented a land reform in so far two stages. First the state owned agricultural land was distributed equally in shares to the rural population.

¹⁸ References to Kosovo shall be understood in the context of UN Security Council Resolution 1244 (1999).

The second phase of the Ukrainian land reform began with a presidential decree in December 1999 that confirmed the right of the land share owners to have the land distributed as physical land parcel(s) and subsequently led to the large-scale conversion from land shares to physical parcels. However, from 2001 a moratorium on buying and selling of agricultural land was introduced and the formal agricultural sales land market has been closed since then. Assessments made by the World Bank and others show that lifting the ban on the agricultural land market will have very positive effects on the economy in the country in general.¹⁹ In March 2020 legislation was adopted in that Parliament that will open the formal agricultural land sales market from July 2021 and Ukraine will enter stage 3 of the model.

In the four Central Asia countries in stage 2 (all CA countries except Kyrgyzstan), agricultural land remains in state ownership and land use rights are still not tradable in a formal land market. In Uzbekistan, agriculture is one of the most regulated sectors of the economy and land (use) rights are often not well protected and insecure. In Tajikistan, the situation is similar to Uzbekistan in that peasant farms have been granted use rights over agricultural land. The Land Code opens in principle for trading of private land use rights but has so far not been followed up by adopting detailed legislation and setting up infrastructure for a land market based on tradable use rights to state land.²⁰

Seven of the 18 countries and territories are currently in stage 3 (land trading stage). In Georgia, land trading is possible but only with the land parcels that are first time formally registered (as discussed in Section 3.2, only around 30 percent of the agricultural land).

In the Western Balkans, Albania, Bosnia and Herzegovina, Kosovo and Montenegro are assessed to be in stage 3. In Albania, the agriculture land market is not vibrant with sales transactions covering in total 700 to 800 ha/year. Furthermore, it is the expectation that most of these transactions are not for agricultural purposes, but with the objective to change the land use (e.g. construction).²¹ In addition to the formal land transactions, informal transactions are as mentioned widespread in Albania.

Kyrgyzstan is the only country in Central Asia, where land reforms that took place mainly from 1997 to 1999 have resulted in private land ownerships as the arable agricultural land was distributed to the rural households. At the same time a moratorium in the land market was introduced, which was lifted in 2001.²² Today, 90 percent of all arable land belongs to the private sector, and the Land Registry Service is functioning. However, the number of annual land sales is still not significant (around 3,600 transactions in 2009) and many land market transactions are related with urban sprawl and housing.

Five of the 18 countries and territories are currently assessed to be in stage 4 (land market stage) and no countries have yet reached the 5th and final stage (complex commodities market). The five countries are Armenia, Moldova, North Macedonia, Serbia and Turkey.

¹⁹ Deininger & Nivievskyi 2019.

²⁰ FAO 2018.

²¹ FAO 2020b.

²² FAO 2020c.

Land turnover in the land market is one way to measure the activity level in the agricultural land market and to some degree also market efficiency. Land turnover is usually measured as the percentage of all (arable) agricultural land that is changing owner in a certain year. In comparison, during 1997 – 2007, between 1 and 2 percent of the total agricultural area (UAA) was traded annually in Belgium, Italy, France and Finland, while the same figure for the Netherlands in the same period varied between 2 and 4 percent.²³

In Lithuania, the annual land turnover of private owned land was around 3 percent in the period 2000-2003, while it dramatically increased to 5-7 percent after becoming EU member country in 2004 (FAO, 2017). In the Czech Republic, the annual turnover of private purchased land amounted to about 0.3 percent of the total agricultural area in average during the period of 1993-2001. However, from 2002 to 2004, the annual turnover of private land increased to 1.5 percent and 3.3% in 2005 after EU accession.

In Armenia in 2016, the land turnover was around 1 percent (4,535 ha of agricultural land in private property transferred through buying-selling transactions out of the in total 455,249 ha private owned agricultural land). In the Republic of Moldova in 2014, the market of agricultural land experienced a turnover of around 0.8 percent. In North Macedonia, the similar figure during 2016-2018 in average was around 0.6 percent and the average parcel size traded was around 0.3 ha.²⁴ Thus the annual turnover in the mentioned CEE countries was still lower than in the mentioned “new” EU member countries around their time of accession in 2004. In addition many of the transactions with agricultural land are as mentioned not for the purpose of agricultural development but rather driven by speculation and construction intentions close to urban areas. In Serbia, the annual turnover of the utilized agricultural area (UAA) has varied between 1 and 3 percent in recent years.²⁵

In addition to the discussed number of transactions (land turnover), land markets can also be looked at through other aspects such as land prices and their development, credit markets, land market participants and how they are regulated. In particular, it is important that a system of regulations on one hand does not jeopardize land market functioning, but on the other hand is guiding and facilitating the market towards desired policy objectives. An important path towards achieving the policy objectives of agricultural development by increase of productivity and competitiveness of farms is to avoid speculation in the agricultural land market by giving priority to local farmers and ensuring that spatial planning is conducted and enforced in protection against unplanned and unregulated urban sprawl on agricultural land. A detailed analysis of these additional aspects is beyond the scope of this paper.

In the countries currently in stage 3 or 4, in total 12 of the 18 countries and territories, development of agricultural land markets, both sale and rental markets, are hampered by a high degree of formally registered owners that are absent from the village where the land is located. Some of these owners out migrated from the country decades ago and often have little interest in their land.

²³ Swinnen et al. 2008.

²⁴ FAO 2019a, 22.

²⁵ FAO 2020d.

In completed and ongoing FAO supported land consolidation projects in North Macedonia, it was found that in average more than 1/3 of all owners were absent from the region where the land is located.

4. Land management instruments in support of development of agricultural land markets

As discussed in Section 3, agricultural land markets are either not existing or if they do remain weak in most of the Eastern European and Central Asian countries. This is together with the underlying structural problems such as land fragmentation and small average farm sizes in general hampering agricultural and rural development. However, a number of land management instruments exist that can be used to address the mentioned structural problems and also to support development of formal agricultural land markets. These land management instruments include land consolidation, land banking, mediation of lease and also active management of state owned agricultural land.

The existence of excessive land fragmentation in an area is not only caused by land reforms or by inheritance traditions where agricultural land parcels in some countries traditionally are sub-divided between the heirs. Also land market development in itself can result in land fragmentation as farmers purchase available land that is not adjacent to land parcels they already own or farm.

4.1. Land consolidation

Land consolidation is in particular in Europe and South Asia a well-established land management instrument. In many countries in Western Europe, modern land consolidation goes back more than 100 years. The traditional objective has been to support agricultural development by reducing land fragmentation and facilitating on a voluntary basis farm enlargement and often linked with improvement of agricultural infrastructure such as irrigation, roads and drainage based on local needs. The FAO Legal Guide on Land Consolidation, published in 2020, defines land consolidation as:²⁶

Land consolidation is a legally regulated procedure led by a public authority and used to adjust the property structure in rural areas through a comprehensive reallocation of parcels, coordinated between landowners and users in order to reduce land fragmentation, facilitate farm enlargement and/or achieve other public objectives, including nature restoration and construction of infrastructure.

Land consolidation should be implemented fully in line with the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of Local Food Security (VGGT).²⁷ It is a principle of the VGGT that legitimate tenure rights should be strongly protected. The tenure guidelines have a section on land consolidation where a key principle says that landowners and farmers participating in land consolidation projects should be at least as well off after the project compared with before.

²⁶ Versinskas et al. 2020.

²⁷ CFS 2012.

In most Western European countries with ongoing national land consolidation programmes, land consolidation has developed into a multi-purpose instrument which allows to pursue different objectives in the same project, e.g. agricultural development in one area and public initiated nature restoration in another area. The approach also allows as an alternative to expropriation of private owned agricultural land to compensate the landowner and farmer in land instead of a monetary compensation and in this way avoiding to destroy local farm structures.

Implementation of land consolidation programmes and projects in a number of ways contribute also to development of agricultural land markets. When agricultural land parcels are very small and fragmented the transaction costs of purchasing them may be higher than the value of the land and the market is often not functioning. This is illustrated in Figure 4 with an example from a World Bank funded land consolidation pilot project in Moldova during 2007-2009.²⁸

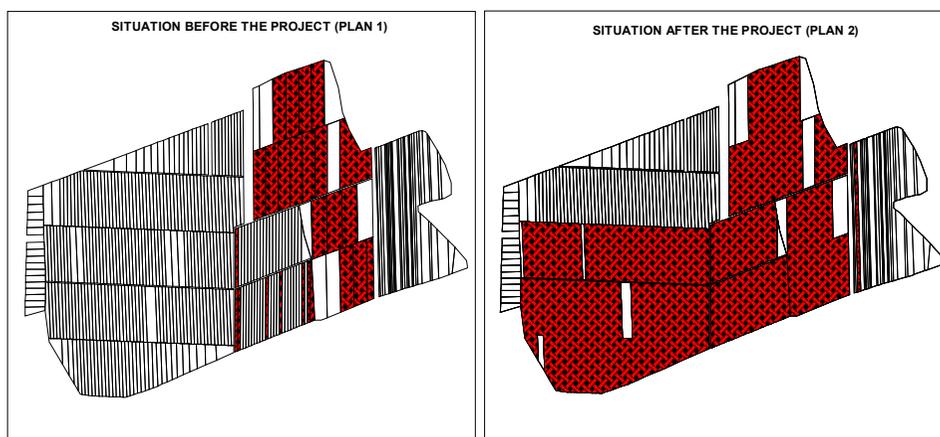


Figure 4: Land market development through land consolidation in Bolduresti village in Moldova²⁹

A local farmer wanted to acquire about 30 hectares in order to establish a new orchard. His interest area had 124 individual owners when he began to acquire land for the project. The farmer managed to acquire an area of about 10 hectares by purchasing a number of parcels with an average size of about 0.7 ha. However, the remaining area comprised parcels as small as 0.14 ha, and the high transaction costs and time constraints of dealing with a large number of owners caused the farmer to give up. Through the land consolidation project, the farmer was able to acquire and consolidate another 15 hectares of unproductive orchard in a relatively short period of time. This involved purchasing approximately 110 parcels from about 80 landowners. After the finalization of the pilot project the farmer continued to purchase parcels in his area of interest and in 2009 he planted a new plum orchard on the consolidated land. After the land consolidation project, the land market in the area has started to function and the farmer can continue to purchase parcels in the market and enlarge his orchard.

²⁸ Hartvigsen, Gorgan & Palmer 2013.

²⁹ Hartvigsen, Gorgan & Palmer 2013.

An important side-effect of land consolidation is also that the existing land administration and land registration problems (discussed in Section 3.2) in the project area are largely cleaned up and solved with the registration of the new formal land rights as an outcome of the land consolidation in the area. Thus, it is normal that the number of land market transactions in an area increase in the period after land consolidation is finalized.

In Central and Eastern Europe, land fragmentation and land consolidation appeared on the political agenda in many countries in the late 1990s after land reforms from the beginning of transition in the 1990s had led to excessive land fragmentation and small farm sizes in most of the countries.³⁰ FAO has played a leading role in supporting the introduction of land consolidation and the development of national land consolidation programmes in Central and Eastern Europe from 2000 on.³¹ The FAO regional land consolidation programme has three main pillars: (a) technical guidelines, (b) field projects in the programme countries, and (c) the informal network of land tenure professionals interested in land consolidation, land banking, land market development, etc. (LANDNET). The FAO Legal Guide on Land Consolidation³² is a recent flagship publication. Since the first field project, started in Armenia in 2004, FAO has so far supported 11 countries in CEE, related to land consolidation. The starting point for the technical support is usually the recognition in the country of the need to address land fragmentation and small farm sizes and a vision to develop an operational national land consolidation programme.

In North Macedonia, in 2014-2017, FAO supported the preparation of the national land consolidation programme by implementing two pilots to test the 2013 Law on consolidation of agricultural land before scaling up, and provided additional training and capacity building.³³ From 2017 to 2021, FAO is supporting the implementation of a first round of land consolidation projects under the national programme through the EU funded project Mainstreaming of the National Land Consolidation Programme (MAINLAND).

4.2. Land banking

Land banking is a land management instrument that has proven its effectiveness and importance in facilitating the implementation of land consolidation projects.³⁴ Land banking is used broadly and combined with land consolidation in Western European countries, like Denmark, Germany and the Netherlands, as a tool to increase land mobility during the land consolidation planning.³⁵ The instrument is also used to compensate landowners in land, instead of monetary compensation, when agricultural land is taken out of production for public-initiated projects and to facilitate farm size enlargement.

³⁰ Hartvigsen 2015.

³¹ Hartvigsen 2019.

³² Versinskas et al. 2020.

³³ Hartvigsen 2019.

³⁴ Versinskas et al. 2020.

³⁵ Hartvigsen 2014.

The possible synergies between land consolidation and land banking instruments in a CEE context have been discussed at several regional land consolidation conferences and workshops during the last decade. However, an assessment conducted in 2015 found that land banking in connection with land consolidation projects has so far largely failed and the potential remains unused.³⁶ There are a number of reasons for this and some of them are country specific. A general explanation appears to be related to the organization of state land management (see Section 4.4) and land consolidation in the countries. Often different public institutions are responsible for the land consolidation programmes and the management of the state land fund, and efforts are often not coordinated.

However, FAO has in the last couple of years seen an increased interest from member countries to engage in land banking activities and support to development of land banking instruments is ongoing or planned in Armenia, Azerbaijan, Turkey and North Macedonia.

4.3. Mediation of lease

In most of the 18 FAO programme countries and territories in the region (see Figure 3) where agricultural land markets are still weak, as discussed in Section 3, many of the formally registered landowners are not farming their land and are also often not living in the village where the land is located but have moved to city centres or even abroad. In such situation on top of the structural problems with excessive land fragmentation, small farm sizes and numerous land registration problems, agricultural land is at high risk of ending up as unutilized.

Mediation of lease is a land management instrument that supports the rental land market by facilitating rental agreements between the owners of agricultural land and the local farmers. The Land Bank of Galicia (Spain) is a good example of a mediation of lease instrument.³⁷ The bank/fund operates mainly with use rights and assumes the role of intermediary manager between landowners and tenants that often do not know each other because the registered owner has left the village where the land is located. By invoking contract assurances that both sides may rely on, it offers convincing guarantees to the owners of not losing ownership over land, being paid according to the lease contract, as well as recovering the property in normal conditions for its use after the contract has ended. Tenants, on the other hand, may rely on a pre-set minimum period of rent of five years, an advantageous guarantee for farmers who wish to implement medium-to-long-term investments.

The key instrument in the process is a web-based system with an updated and accurate database of land plots, at national level available for rent and under which conditions. The information in the database should be regularly updated with new land plots becoming available for lease, ideally entered by the owners into the system. At the same time, the web-based system also allows interested farmers to see what is available for lease and request the lease after which the agency in charge with mediation of lease will complete the lease agreement with the owner and the user.

³⁶ Hartvigsen 2015.

³⁷ FAO 2019b.

4.4. Active management and privatization of state owned agricultural land

Many countries in CEE have large reserves of state owned agricultural land after the finalization of land reforms. In Lithuania, 400,000 ha remain in state ownership and in North-Macedonia, around 240,000 ha of agricultural land remain in state ownership.³⁸ This is more than 40 percent of all arable agricultural land.

State owned agricultural land represents a very valuable asset that provides policy options if the Government wants to engage in an active land policy. State land provides when it is entered into the agricultural rental and sale land markets an excellent opportunity to support development of target groups such as small family farms and young farmers. This often requires that state land is not automatically rented out or sold in auctions to the highest offers. It is also essential for the success of land consolidation projects (see Section 4.1) that the existing state land in the land consolidation project areas is made available for the project, ideally both through re-allotment and privatization.

The state land or parts of it can be an excellent starting point for a land bank (see Section 4.3). FAO has during 2019-2020 provided technical assistance to North Macedonia and Montenegro on improved management and privatization of state owned agricultural land.

5. Conclusions and perspective

Small scale family farms dominate the farm structures in most of the 18 FAO programme countries and territories in the Western Balkans, Eastern Europe, Caucasus and Central Asia. In countries such as Albania, Armenia, Bosnia and Herzegovina, Georgia, North Macedonia and Kyrgyzstan the average farm sizes are between one and three hectares and between 95 and 99 percent of all farms are smaller than 5 ha. In addition, fragmentation of both land ownership and land use is excessive in most countries. The small farms are divided into several small and often badly shaped land parcels and have often problems with access to appropriate agricultural infrastructure such as roads, irrigation and drainage.

In addition to these structural problems, which are hampering both the development of agricultural land markets and of agriculture and rural areas in general, formal land markets are constrained from a number of additional issues such as an often large degree of informality, both informal land transactions and unresolved inheritance, where the land registry is not updated. Furthermore, a large list of more 'technical' land registration problems exist in many countries, including inconsistency between the property titles and the reality on the ground.

When the five stage model for development of land markets of Williamson et al. (2010) is applied on the countries in Eastern Europe and Central Asia, it is clear that all countries except Belarus have reached development stage 2 where land rights are established, either in form of private ownership or use rights to state owned agricultural land (Figure 3). In Belarus, agricultural land remains in state property and use.

³⁸ Hartvigsen 2015.

Two-third of the countries (12) are assessed to be in stage 3, where simple land trading has begun but the sales market for agricultural land is still limited. Land markets in most of the countries in stage 3 are usually characterized by a high degree of informality. So far only five countries, Armenia, Moldova, North Macedonia, Serbia and Turkey are assessed to be in stage 4, the land market stage, and no countries have yet reached stage 5 (complex commodity market) or will do so in the foreseeable future. In these countries, the annual land turnover of private agricultural land has reached a level of 0.5 to 1 percent of the utilized agricultural land. This is still below the market activity in most EU member countries.

We have illustrated that land management instruments such as land consolidation, land banking, mediation of lease and active management of state owned agricultural land can support development of the agricultural land markets. The instruments are applied usually with the objective to reduce land fragmentation and facilitate farm enlargement on a voluntary basis. More consolidated and larger farms are positively contributing to further land market development. In addition, a side-effect of land consolidation is that the land registry is ‘cleaned up’ from informalities and land registration problems are solved integrated in the land consolidation process.

The active use of land banks, state land and mediation of lease instruments allows for an active land policy, often to develop subsistence or semi-subsistence farms into commercial family farms, the type of farms, which is the backbone of the farm structures in most EU member countries. The increased competitiveness and productivity of farms is the outcome. An active land policy also allows to provide access to land of young farmers. Finally, the discussed land management instruments are also crucial in addressing the problem of land abandonment and in this way strengthening local food production. This is an issue, which has increased in importance during the 2020 COVID-19 pandemic.

Bibliography

1. CFS (2012) *Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security*, CFS Rome.
2. Deininger K & Nivievskiy O (2019) *Economic and Distributional Impact From Lifting The Farmland Sales Moratorium*, Vox Ukraine.
3. Dale P & Baldwin R (2010) *Lessons learnt from the emerging land markets in Central and Eastern Europe*.
4. FAO (2017) *Policy note on land abandonment and recommendations for policy advice on introduction of a land consolidation instrument in Armenia*, Unpublished project report prepared under GCP/ARM/006/EC.
5. FAO (2018) *Legal assessment of selected issues against the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forestry in the context of National Food Security in Tajikistan*, Unpublished project report.
6. FAO (2019a) *Report on management and sale of state owned agricultural land*, Unpublished project report prepared under TCP/MCD/3701/C1.
7. FAO (2019b) *Discussion paper on the policy response to the land abandonment problem in Armenia through introduction of land banking and land consolidation instruments*, Unpublished discussion paper prepared under TCP/ARM/3701/C1.
8. FAO (2020a) *Smallholders and Family Farms in Europe and Central Asia, Regional Synthesis Report*, Budapest, in: <https://doi.org/10.4060/ca9586en> [02.10.2020]
9. FAO (2020b) *Smallholders and family farms in Albania*. Country study report 2019, Budapest, in: <http://www.fao.org/3/ca7450en/CA7450EN.pdf> [02.10.2020]
10. FAO (2020c) *Smallholders and family farms in Kyrgyzstan*. Country study report 2019, Budapest, in: <http://www.fao.org/3/ca9826en/CA9826EN.pdf> [02.10.2020]
11. FAO (2020d) *Smallholders and family farms in Serbia*, Country study report 2019, Budapest, doi: <https://doi.org/10.4060/ca7449en>
12. Haldrup N O (2011) *Land registration in developing countries – An introduction*, Lambert Academic Publishing.
13. Hartvigsen M, Gorgan M & Palmer D (2013) Experiences with Land Reform and Land Consolidation in Moldova, *FAO Land Tenure Journal*, 2/2012, in: <http://www.fao.org/nr/tenure/land-tenure-journal/index.php/LTJ/article/view/59> [02.10.2020]
14. Hartvigsen M (2013a) *Land Reform in Central and Eastern Europe after 1989 and its outcome in form of farm structures and land fragmentation*, FAO Land Tenure Working Paper 24, in: <http://www.fao.org/docrep/017/aq097e/aq097e.pdf> [02.10.2020]
15. Hartvigsen M (2013b) *Land Reform and land fragmentation in Central and Eastern Europe*, *Land Use Policy* 36 (2014), 330–341., in: <http://www.sciencedirect.com/science/article/pii/S026483771300166X> [02.10.2020]
16. Hartvigsen M (2014) Land Mobility in a Central and Eastern European Land Consolidation Context, *Nordic Journal of Surveying and Real Estate Research*, 10(1), 2014, in: <http://ojs.tsv.fi/index.php/njs/article/view/41460> [02.10.2020]
17. Hartvigsen M (2015) *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*, FAO Land Tenure Working Paper 26, in: <http://www.fao.org/3/a-i4352e.pdf> [02.10.2020]

18. Hartvigsen M (2019) FAO support to land consolidation in Europe and Central Asia during 2002-2018 – Experiences and way forward, *FAO Land Tenure Journal*, 1/2019, in: <http://www.fao.org/3/CA3184EN/ca3184en.pdf> [02.10.2020]
19. Hartvigsen M, Ismayilov A & Gorgan M (2020) *Development of a land consolidation instrument in the Republic of Azerbaijan*, Paper presented at FIG Working Week in Amsterdam in May 2020.
20. Lerman Z & Sedik D (2018) Transition to smallholder agriculture in Central Asia, *Wiley Journal of Agrarian Change*, 2018/18, pp. 904–912.
21. Swinnen J, Ciaian P & d’Artis K (2008) *Study on the Functioning of Land Markets in the EU Member States under the Influence of Measures Applied under the Common Agricultural Policy*, Centre for European Policy Studies (CEPS).
22. Törhönen M-P (2016) *Keys to Successful Land Administration - Lessons Learned in 20 Years of ECA Land Projects*, World Bank Group.
23. Versinskas T, Vidar M, Hartvigsen M, Mitic Arsova K, van Holst F & Gorgan M (2020) *Legal Guide on Land Consolidation - Based on regulatory practices in Europe*, FAO Legal Guide 3, Rome, doi: <https://doi.org/10.4060/ca9520en>.
24. Williamson I, Enemark S, Wallace J & Rajabifard A (2010) *Land Administration for Sustainable Development*, ESRI Press Academic, Redlands, California.