

FAO support to land consolidation in Europe and Central Asia from 2000-2018 Experiences and way forward

Morten HARTVIGSEN, FAO

Keywords: FAO, Land fragmentation, Land Consolidation, Smallholders, Europe and Central Asia

SUMMARY

Shortly after The Food and Agriculture Organization of the United Nations (FAO) was founded in 1945, the organization had started to support member countries addressing structural problems with land fragmentation and small farm sizes through development of land consolidation instruments.

In the late 1990s, land fragmentation and land consolidation re-appeared on the agenda, this time in the context of Central and Eastern Europe where land reforms from the beginning of transition in 1990 had led to excessive land fragmentation and small farm sizes in most of the countries. FAO began around 2000 to document and address problems in this area. The objective of this paper is to present the FAO experiences of supporting member countries related to land consolidation, but also to reflect on the lessons learned and the way forward.

Supporting smallholders and family farms is one of four priorities for FAO in Europe and Central Asia, confirmed by the FAO Regional Conference in 2016. FAO established in the region in 2014 the *Regional Initiative on Empowering Smallholders and Family Farms for Improved Rural Livelihood and Poverty Reduction*. The regional land consolidation programme is part of the Regional Initiative.

Most governments throughout Central and Eastern Europe have from the early 1990s and onwards recognized the need to address these structural problems hampering development of agriculture and rural development. This has led to the introduction of land consolidation instruments. FAO has played a leading role in supporting introduction of land consolidation and in the development of national land consolidation programmes. The FAO regional land consolidation programme has three main pillars: i) technical guidelines, ii) field projects in the programme countries and iii) the informal network of land tenure professionals interested in land consolidation, land banking, land market development etc. (LANDNET). FAO has so far implemented field projects in 11 countries in the region.

Since the *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* were adopted in May 2012, the Guidelines

have served as the a reference to improve governance of tenure, including through land consolidation, based on international best practice.

The experiences from many countries in the region show that it is often a long and not always straightforward process to develop a fully operational national land consolidation programme and also more complex than anticipated 10-15 years ago. There is in general a need to mainstream and accelerate the development in many countries and also to ensure an integrated broader support from civil society organizations such as farmers organizations and academia.

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Morten Hartvigsen (Hungary)

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1. Introduction

Shortly after The Food and Agriculture Organization of the United Nations (FAO) was founded in 1945, the organization had started to support member countries addressing structural problems in agriculture with land fragmentation and small holding and farm sizes through development of land consolidation instruments.¹ During the 1950s and 60s, FAO supported through technical assistance development of land consolidation in member countries in Europe such as Turkey, Greece, Spain and Cyprus but also in countries in the Near East and Asia.² Seminars with experts from the member countries were organized through the established Working Party on Consolidation of Holdings. In 1955, looking back at the first decade of activities of the organization, FAO concluded that “*Excessive fragmentation or uneconomically small holdings may prevent the farmer from using his time to best advantage or adopting modern means of production, e.g. mechanization*”.³ During the second half of the 1950s, a study was conducted on best practise on land consolidation in Europe.⁴

In the late 1990s, land fragmentation and land consolidation re-appeared on the agenda, this time in the context of Central and Eastern Europe where land reforms from the beginning of transition in 1990 had led to excessive land fragmentation and small farm sizes in most of the countries.

FAO began to document and address problems in this area.⁵ The Munich Symposium in 2002 was a milestone in the process and the first of so far 18 regional workshops held to date on land consolidation, land banking, land market development and related topics.⁶ FAO has in Europe

¹ Binns, B. (1950): *The consolidation of fragmented agricultural holdings*. FAO.

² Meliczek, H. (1973): *The work of FAO and experiences in land consolidation*. Land Reform, Land Settlement and Co-operatives, FAO. Rome, 1973. Number 1, 50-63.

³ FAO (1955): *The State of Food and Agriculture 1955 – review of a decade and outlook*. Rome. September 1955.

⁴ Jacoby, E.H. (1959): *Land Consolidation in Europe*.

⁵ Palmer, D., Munro-Faure, P. and Rembold, F. (2004): *Land consolidation and rural development in Central and Eastern Europe*. ZfV - Zeitschrift für Geodäsie, Geoinformation und Landmanagement 2/2004.

⁶ Proceedings from FAO LANDNET workshops from 2002 are available at:
<http://www.fao.org/europe/resources/land-tenure-workshops/en/>

and Central Asia since 2002 supported member countries in preparing for national land consolidation programmes through i) preparation of technical guidelines and publications, ii) field projects and iii) by organizing the mentioned series of regional workshop and establishment of an informal network of land tenure professionals. Since 2010, the network is known as LANDNET.

The objective of this paper is to present the FAO experiences of supporting member countries related to land consolidation from 2002 and onwards, but also to reflect on the lessons learned and the way forward. The endorsement in 2012 of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGT),⁷ and in 2015 the adoption of the 2030 Agenda for Sustainable Development with 17 Sustainable Development Goals (SDGs) and 169 associated targets, further require reflection to ensure that all development initiatives related to land tenure and beyond in the best possible way is in line with VGGT and contribute to achieving the SDGs.

2. Land fragmentation and small farms

In Europe and Central Asia, FAO is among its 53 member countries providing technical support in 18 programme countries. Most of these 18 countries have farm structures dominated by smallholders and family farms or dualistic farm structures with many small farms and few large corporate farms.⁸

Land reforms were at the beginning of the transition from centrally planned economy to market economy in 1990 high on the political agenda in most countries in Central and Eastern Europe (CEE) and together with restructuring of the large-scale socialist farms a key part of the overall agrarian reforms.⁹ Different land reform approaches were applied in the different countries in the region with the main methods being the *restitution* of ownership to former owners and the *distribution* of agricultural land to the rural population in either physical parcels or land shares.¹⁰ Also the outcome of land reform varied between the countries. There is a strong correlation between the land reform approach and the farm structures today.¹¹ In most CEE countries, land reforms have completely changed the farm structures that existed during the

⁷ FAO (2012a): *Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security*. CFS Rome.

⁸ FAO (2018): *Empowering Smallholders and Family farms in Europe and Central Asia - Regional Synthesis Report*. FAO REU Budapest.

⁹ Lerman, Z. et al. (2004): *Agriculture in Transition – Land Policies and Evolving Farm Structures in Post-Soviet Countries*. Lexington Books, p. 3.

¹⁰ 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.

¹¹ Hartvigsen, M. (2013b): *Land Reform and land fragmentation in Central and Eastern Europe*. Land Use Policy 36 (2014), 330-341.

socialist era. As a result of the recent land reforms, the ownership of agricultural land has become fragmented to a medium or high extent in almost all the countries. Also the land use has become fragmented in most CEE countries. The seven countries in ex-Yugoslavia suffer from excessive fragmentation of both land ownership and of land use. In Yugoslavia, however, the collectivization process was never completed and around 80 percent of agricultural land remained in both private ownership and use during the socialist era. Thus, land fragmentation in these countries is not an outcome of recent land reforms but rather a result of the pre-WWII farm structures that were largely “frozen” between 1950 and 1990 combined with continued fragmentation through inheritance.

In countries such as Albania, Moldova, the ex-Yugoslavia countries and the three Trans Caucasus countries, the average sizes of arable agricultural parcels are around 0.3 ha and most farms have a size of 1-3 ha.¹² In Albania, 98 percent of all farms are less than 5 ha and the average farm size is 2.1 ha distributed into 2-5 land parcels.¹³ In Georgia, 99 percent of all farms are smaller than 5 ha, and the average farm size is 1.4 ha distributed into 4-5 parcels. In FYR Macedonia, 95 percent of all farms are smaller than 5 ha, and the average farm size is 1.6 ha distributed into in average 7 parcels.

In Central Asia, land reforms followed in most countries a different path than in the rest of the region. Only in Kyrgyzstan, the land was privatized and ownership rights distributed to the rural population and only the arable land (7 percent of the total land area in the country) was privatized.¹⁴ In the other Central Asian countries, land remains owned by the state but land use rights were allocated to the rural population during the land reform process. In Kyrgyzstan, the average farm size is 2.9 ha. In Tajikistan, it is 3.7 ha.¹⁵ In general, the level land fragmentation in the five countries in Central Asia is low as the land is usually distributed in only 1-2 parcels per farm.

The level of fragmentation of both land ownership and land use in the 18 FAO programme countries in Europe and Central Asia is assessed in Figure 1.

Land fragmentation and small farm sizes is a fundamental structural problem resulting in low productivity and competitiveness in the globalized economy. Di Falco et al. (2010)¹⁶ list a number of publications that confirm that land fragmentation increases production costs and leads to inefficiency. The structural problem with excessive land fragmentation and small farm

¹² 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.

¹³ FAO (2018): *Empowering Smallholders and Family farms in Europe and Central Asia - Regional Synthesis Report*. FAO REU Budapest.

¹⁴ USAID (2011): USAID Country Profile – Property Rights and Resource Governance - Kyrgyzstan.

¹⁵ FAO (2018): *Empowering Smallholders and Family farms in Europe and Central Asia - Regional Synthesis Report*. FAO REU Budapest.

¹⁶ Di Falco, S., Penov, I., Aleksiev, A., & van Rensburg, T. (2010): *Agrobiodiversity, farm profits and land fragmentation: Evidence from Bulgaria*. Land Use Policy, 27

sizes is hampering agriculture and rural development and hence also most initiatives in support of development. Small-scale agriculture production is ongoing 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.

Land fragmentation and small farm sizes is also among the root causes to out migration from rural areas and in several countries in the region a main reason for arable 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 farms is abandoned.¹⁷ Land abandonment is widespread in most Western Balkan countries. In FYR Macedonia, around 1/3 of the arable land is unutilized.

Supporting smallholders and family farms is one of four priorities for FAO in Europe and Central Asia, confirmed by the FAO Regional Conference in 2016. FAO established in the region in 2014 the *Regional Initiative on Empowering Smallholders and Family Farms for Improved Rural Livelihood and Poverty Reduction*. The Regional Initiative is building on the legacy of the International Year of Family Farming in 2014. The Regional Initiative has two main components; i) to support policy development and innovative practices for increased sustainable agricultural production and ii) to support improvement of rural livelihood and enhanced access to natural resources.¹⁸ FAO support to address land fragmentation and small farm sizes is included under the programmatic umbrella of the Regional Initiative.

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

¹⁷ FAO (2017a): *Policy note on land abandonment and recommendations for policy advice on introduction of a land consolidation instrument in Armenia*. Prepared under GCP/ARM/006/EC.

¹⁸ <http://www.fao.org/europe/regional-perspectives/smallholders-family-farms/en/>

Tajikistan	Low	Low
Turkey	High	High
Turkmenistan	Low	Low
Ukraine	Low-medium	Low
Uzbekistan	Low	Low

Figure 1: Level of land fragmentation in FAO REU programme countries.

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

Following the land reforms, land administration systems including cadaster agencies and land registers were with large-scale donor support build up in the countries. Land rights were formally registered after land reform and land markets were prepared, including for agricultural land. From the mid-1990s and onwards, the World Bank has funded 42 land projects in 24 ECA countries in support of the land and property sector.¹⁹ In most of the FAO programme countries in the region, the first registration of formal land ownership is almost completed. In Georgia, however, only around 1/3 of all land parcels are formally registered.

Despite the many efforts from both governments and donors throughout the region, agricultural land market remain weak in many countries. Many different types of constraints hamper land markets, especially the agricultural land markets. Many countries have “pockets” of unregistered land, often state or other public owned land but also areas of private land remain unregistered. In the countries in ex-Yugoslavia, the formal land market was very much restricted and land registration was largely neglected during the decades of collectivization. The situation has not changed a lot since the collapse of Yugoslavia and a large percentage of the formally registered owners have been deceased for decades and inheritance remains unsolved in the families. All these registration problems prevent the land parcels from accessing the formal land market.

Another type of problems hampering the development of the formal agricultural land markets have to do with the established land market procedures, i.e. the procedures for transfer of ownership and use rights from one registered owner to another. Land transaction procedures are in many countries complicated and costly compared with the local land market price. This often leads to a high degree of informal land transactions where the transfer of ownership is agreed between the seller and the buyer but never formally registered in the land register. Experiences from FAO land consolidation pilot projects in Albania and Azerbaijan show that most of the agricultural land parcels sold in the pilot communities since the land distribution in the 1990s have not been formally registered. This undermines the sustainability of the formal land administration systems²⁰ and the high degree of informality in the land market is then again

¹⁹ Törhönen, M-P. (2016): *Keys to Successful Land Administration - Lessons Learned in 20 Years of ECA Land Projects*. World Bank Group.

²⁰ Haldrup, N.O. (2011): *Land registration in developing countries – an introduction*. Lambert Academic Publishing. P. 73-75.

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.

3. FAO experiences from support to land consolidation in the region

Almost 30 years have passed since the fall of the Berlin Wall in 1989 initiated the transition in the former Eastern Bloc from centrally planned economy towards market economy. As discussed in Section 2, the outcome of land reforms and land privatization in many countries in Europe and Central Asia have been excessive land fragmentation and small farm sizes. Governments throughout the region have mostly recognized the need to address these structural problems hampering development of agriculture and rural development. This has led to the introduction of land management instruments such as land consolidation and land banking.

The current status of the introduction of land consolidation in Central and Eastern Europe and Central Asia is illustrated in Figure 2. Five minimum criteria are to be in place before a national programme is established 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 public lead agency for land consolidation has been established and delegated the task to manage the national land consolidation programme, iv) secured funding on an annual basis allows the lead agency to plan activities years ahead and v) technical and administrative capacity has been developed to implement land consolidation projects in the field and to manage the programme.²¹ Nine of the countries already have ongoing land consolidation programmes when the five criteria are applied.

The introduction of land consolidation in CEE from the early 1990s and onwards has been supported by more than 50 international technical assistance projects funded by international organizations and donors.²² Certainly not all have been of large scale, e.g. with field activities in the form of small pilots, and some have been relatively small studies. However, it is clear that only few countries would have been where they are today without international technical assistance. In this context, it can be observed that countries have, in a certain period, an “open window” to attract donor funding for land consolidation, as well as other projects, before they become members of the EU. After EU accession, it is often difficult for the countries to fund such development activities as international organizations and donors usually close down support latest at the time of EU accession. For various reasons, countries such as Latvia, Estonia, Croatia and Romania were not able to make land consolidation programmes

²¹ Hartvigsen, M. (2015a): *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*. FAO Land Tenure Working Paper 26. P. 4-5.

²² Ibid, p. 105.

operational before membership of the EU and they are now facing difficulties in finding international support for land consolidation.

Countries with ongoing national land consolidation programme	Countries where land consolidation is introduced but not yet with a national programme	Countries with little or no experiences in land consolidation
Poland	Estonia	Montenegro
Eastern Germany	Latvia	Georgia
Czech Republic	Hungary	Russian Federation
Slovakia	Romania	Belarus
Slovenia	Bulgaria	Kyrgyzstan
Lithuania	Croatia	Tajikistan
Serbia	Bosnia and Herzegovina	Kazakhstan
FYR Macedonia	Kosovo*	Turkmenistan
Turkey	Albania	Uzbekistan
	Moldova	
	Ukraine	
	Armenia	
	Azerbaijan	

Figure 2: Status for the development of land consolidation programmes in Central and Eastern Europe and Central Asia (as of May 2018). FAO has supported land consolidation in countries in bold.

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

FAO has in Central and Eastern Europe from 2000 and onwards played a leading role in supporting introduction of land consolidation and in the development of national land consolidation programmes. As the beginning of what has become the FAO regional programme on land consolidation, the organization commissioned in 2000-2001 studies on land fragmentation and land consolidation in six countries; Bulgaria, the Czech Republic, Hungary, Romania, Georgia and Armenia.²³ The studies documented the need to address the structural problems and also the interest among farmers and other stakeholders. The results of the studies were presented at the first regional workshop on land consolidation in Munich in February 2002. As an outcome of the meeting, the participants agreed on *The Munich Statement on land consolidation as a tool for rural development in CEE / CIS countries*. The statement expressed the concern of the participants in terms of the negative impact of land fragmentation in transition countries and recommended to decision-makers in these countries and to international

²³ Riddell, J. and Rembold, F. (2002): *Farm Land Rationalisation and Land Consolidation: Strategies for Improved Land Management in Eastern and Central Europe*. Paper presented during the International Symposium "Land Fragmentation and Land Consolidation in CEEC: A gate towards sustainable rural development in the new millennium; Munich, February 2002.

organizations and donors to include in their development programmes land consolidation as an essential instrument for rural development.

The FAO regional land consolidation programme has three main pillars: i) technical guidelines, ii) field projects in the programme countries and iii) the informal network of land tenure professionals interested in land consolidation, land banking, land market development etc. (LANDNET). During the 2000s, FAO prepared and published three technical publications to give guidance for land consolidation activities in Central and Eastern Europe.²⁴ Focus was on the initial introduction of land consolidation in the countries and on funding opportunities under Rural Development Programmes with EU co-financing.

FAO has from the first field project, started in Armenia in 2004, and onwards so far supported 11 programme countries in Central and Eastern Europe 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 countries such as Armenia (2004-06), Serbia (2006-08), Albania (2010-13), Bosnia and Herzegovina (2011-15) and Azerbaijan (2016-19), FAO has provided the initial support to introduce land consolidation in the country.²⁵ The projects in the mentioned countries have usually had three main components: i) drafting of a national land consolidation strategy, ii) land consolidation pilot project and iii) training and capacity development. In other countries, FAO has provided support after others have contributed with the initial support to introduce land consolidation. In Lithuania (2005-07) and Moldova (2010-11), FAO supported the preparation of national land consolidation strategies after pilots had already been implemented with support from other donors and international organizations. In Turkey (2010-12), FAO supported monitoring and evaluation of the land consolidation programme with a pilot impact evaluation.²⁶ In Kosovo (2016-17), FAO supported the further development of the land consolidation methodology already in place as part of the preparation of a national programme. In Ukraine, there is currently a Moratorium on sale of agricultural land. The government is planning to open the agricultural land market and FAO is during 2017-18 supporting the development of land consolidation legislation planned for adoption when the agricultural land market is opened.²⁷ In the former Yugoslav Republic of Macedonia, FAO

²⁴ FAO (2003): *The design of land consolidation pilot projects in Central and Eastern Europe*. FAO Land Tenure Studies 6.

FAO (2004): *Operations manual for land consolidation pilot projects in Central and Eastern Europe*. FAO Land Tenure Manuals 1.

FAO (2008): *Opportunities to mainstream land consolidation in rural development programmes of the European Union*. FAO Land Tenure Policy Series 2.

²⁵ Hartvigsen, M. (2015a): *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*. FAO Land Tenure Working Paper 26.

²⁶ FAO (2012b): *Pilot evaluation: Land consolidation in Konya Region, Cumra District, villages Inli and Dinlendik (2010-2012)*.

²⁷ FAO (2017b): *Report on the legal framework for land consolidation and the draft Law on Land Consolidation in Ukraine*. TCP/UKR/3601.

supported during 2014-17 the preparation of the national land consolidation programme by implementing two pilots to test the Law on consolidation of agricultural land adopted in 2013 before scaling up and provided in addition training and capacity building. From 2017 and until 2020, FAO is through the EU funded project *Mainstreaming of the National Land Consolidation Programme (MAINLAND)* supporting the first round of land consolidation projects under the national programme (See Box 1 below)^{28 29}.

²⁸ Hartvigsen, M. (2015a): *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*. FAO Land Tenure Working Paper 26. P. 67-69.

²⁹ Van Holst, F., Hartvigsen, M., Ónega Lopex, F. (2018): *Land governance for development in Central and Eastern Europe: Land fragmentation and land consolidation as part of Sustainable Development Goals*. World Bank Land and Poverty Conference, March 2018.

BOX 1 – FAO support to the land consolidation programme in FYR Macedonia 2014-2020

The farm structure in FYR Macedonia is dominated by small family farms with an average farm size of 1.6 ha and an average of seven land parcels per agricultural holding. Excessive fragmentation of both landownership and land use exists, not so much as a result of the land reform process but related to the farm structure of prior to WWII, which still exists to a large degree. The average farm size has decreased since the independence in 1991 and as much as one-third of the total arable land is abandoned.

Land consolidation was introduced with technical assistance from the Netherlands during 2008-2012 where two rounds of small-scale pilots were implemented and the National strategy on agricultural land consolidation in the Republic of Macedonia for the period 2012-2020 was developed. The strategy was politically adopted in March 2013. The Ministry of Agriculture, Forestry and Water Economy (MAFWE) prepared the Law on Consolidation of Agricultural Land during 2012-2013, and the law was adopted by the Parliament in December 2013. Five by-laws were prepared during the first half of 2014. According to the land consolidation strategy and the law, the main objective of implementing land consolidation is to reduce land fragmentation, improve parcel shapes and increase the size of agricultural holdings and hence contribute to increased productivity and competitiveness in the agricultural sector. In addition, the objective is to reduce the amount of abandoned agricultural land, improve rural infrastructure and improve environmental protection and sustainable management of natural resources. The law opened for implementation of land consolidation in two different approaches, majority-based where the qualified majority of the landowners in the project area approve the re-allotment plan and a voluntary approach where all included land transactions are agreed by the owners. In 2013, MAFWE established a Land Consolidation Department with responsibility for the preparation and operation of a national land consolidation programme.

The Government requested FAO to support the preparation of the national land consolidation programme. The project began in December 2014 and was finalized in March 2017. The newly adopted legislation was tested in two land consolidation pilots, one with a majority-based approach and one in a voluntary approach. The pilots revealed several obstacles and bottlenecks in the legislation, a detailed legal assessment was carried out including for compliance with the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT) and an extensive package of legal recommendations were provided to the Ministry. Both pilots were successful in terms of the re-allotment plans. In the majority-based pilot in Egri, 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. Rehabilitation of agricultural infrastructure, new roads, irrigation and drainage is planned. In Konce, a draft re-allotment plan was prepared in a voluntary approach including many small scattered parcels of state land. However, due to the legal constraints, the full implementation of the pilots in the field has waited for the legal obstacles to be solved through the adoption of amendments to the legislation.

FAO is from March 2017 until September 2020 implementing the EU funded project Mainstreaming of the National Land Consolidation Programme (MAINLAND) supporting the first round of land consolidation projects under the national programme. The project has during 2017/18 extensively supported the Ministry in the preparation of the necessary legal amendments and prepared for the launch of the first 12 field projects in mid-2018.

Since the *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security*³⁰ were adopted in May 2012, the Guidelines have served as the a reference to improve governance of tenure based on international best practice. The Guidelines promote security and formal registration of

³⁰ FAO (2012a): *Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security*. CFS Rome.

legitimate tenure right as well and the enjoyment of the rights. The document has a specific section on land consolidation and other readjustment approaches (Section 4.13) where it is a guiding principle that it should be ensured that the participants are at least as well off after the land consolidation as before.

It is the approach of FAO to introduce land consolidation instruments in support of the development of the normal land markets. As discussed in Section 2, agricultural land markets in the 18 FAO programme countries are often not functioning well. Addressing and solving the land registrations problems needs to be an integrated part of the land consolidation process and usually it is recommended to empower the decision making bodies approving the land consolidation project / re-allotment plan also to take decisions on land registration issues related to the landowners and land parcels participating in the land consolidation projects. Without the mandate to adjudicate uncertainties in ownership, it would often not be possible to implement and register the re-allotment plans with the new parcel layout after the land consolidation projects.



Figure 3: Majority-based land consolidation pilot project in Egri village in FYR Macedonia (2017). Parcel structure before (left) and after (right). The number of land parcels was reduced by a factor 4. Integrated rehabilitation of agricultural infrastructure (roads, irrigation and drainage).

Implementation of land consolidation can support the development of weak agricultural land markets. Small land parcels have often a market price that is lower than the transaction costs involved in transferring them from one owner to another and there will often be no interest in purchasing such parcels. After consolidation, the market will begin to function and gradually become stronger as the process of improving the farm structures continues through normal land market transactions.

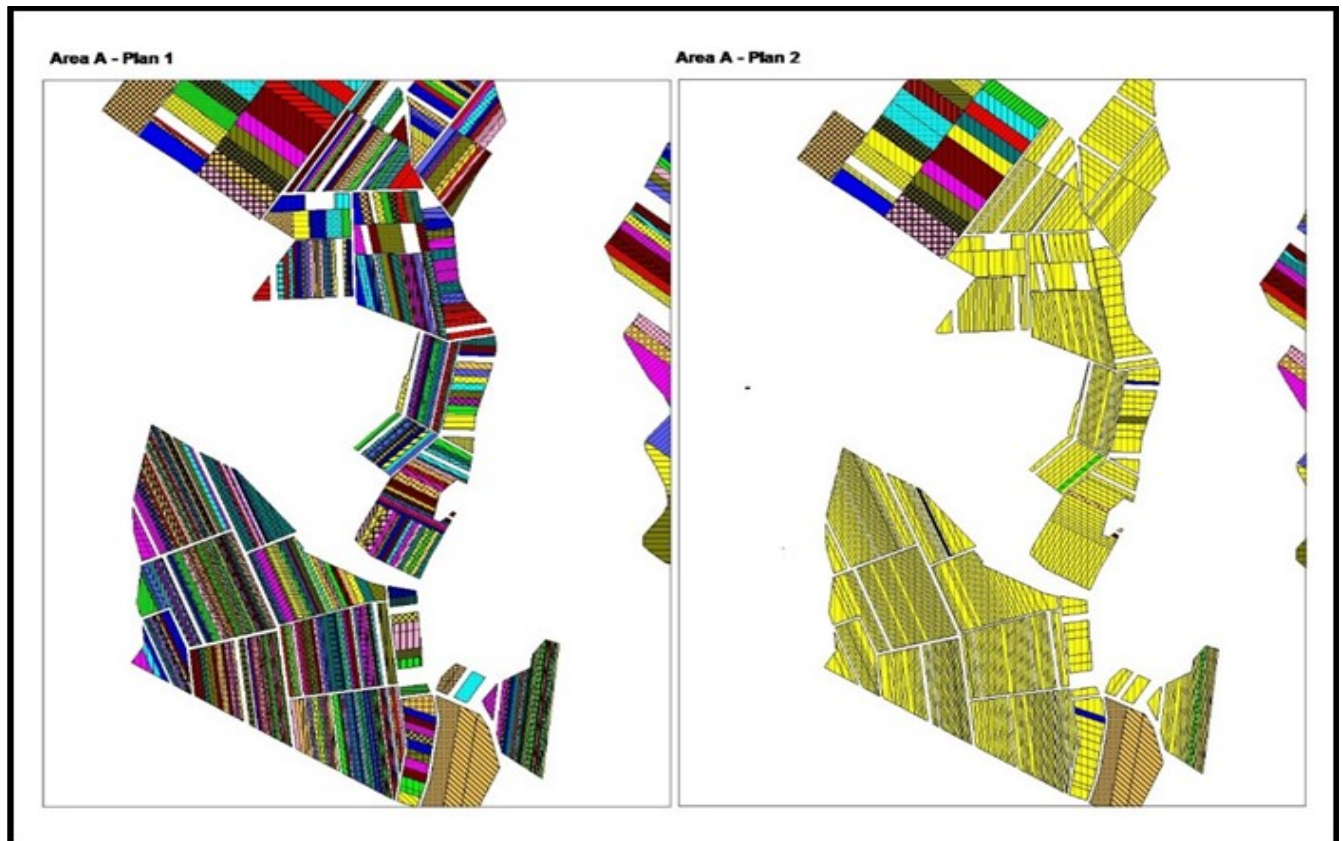


Figure 4: Voluntary land consolidation pilot project in Moldova (2008). Land ownership in part of Ghiduleni village before (left) and after (right) the project (small part of the project area).

Throughout Europe, land consolidation is implemented in two main approaches, *majority-based land consolidation*, often referred to as compulsory or comprehensive land consolidation, and *voluntary land consolidation*.³¹ In a majority-based approach, a qualified majority of the landowners in the project area representing the majority of the land in the project area can decide about the implementation of the re-allotment plan. In this way also landowners not supporting the plan will still have their land parcels consolidated but will always receive land of at least the same value as before the project. FAO has in the region promoted to introduce

³¹ Hartvigsen, M. (2015b): *Integrated voluntary land consolidation – A Third model for land consolidation in Central and Eastern Europe*. FAO Land Tenure Journal 1-2015, 9-43.

land consolidation in a voluntary approach. However, a majority-based land consolidation approach can as part of a national programme in some cases be the best solution when legal safeguards are in place properly protecting legitimate tenure rights, e.g. if the project is supported by almost all the landowners and also the value of the participating land parcels is homogenous. FAO has in addition promoted a third approach - *integrated voluntary land consolidation*³² – where among other elements the voluntary approach is combined with the needed improvement of the local agricultural infrastructure in the project area.

As discussed in Section 2, rural communities in the FAO programme countries are usually suffering from a wide range of needs and constraints including the structural problems of land fragmentation and small farm sizes. Hence, there is a strong need to integrate the land consolidation work with broader support to local community development beginning with the rehabilitation of agricultural infrastructure but going well beyond. In FAO land consolidation pilots in countries such as Armenia, Serbia, Albania, Bosnia and Herzegovina and FYR Macedonia, local Community Development Plans have been prepared in an inclusive and participatory process with the local stakeholders.³³ In 2004, FAO published *A short introduction to micro-regional planning*, which supports community-led development initiatives, also in connection with land consolidation projects.³⁴ Conducting a series of community workshops will often be a good way to facilitate the process. This should be coordinated with the awareness and information meetings conducted as part of the land consolidation process where also the participation of the stakeholders is essential. Also the active involvement of the individual stakeholders, including the landowners and farmers, is important. In the FAO pilots, the aim has been to individually interview all identified landowners about their interest in and wish for the land consolidation project. These interviews are in addition an opportunity to discuss with the individual landowners their perception of needs for development at a very practical level, e.g. where parcels need access roads, need for renewal or new irrigation systems, need for drainage etc. The adoption in 2015 of the *Agenda 2030* and *the Sustainable Development Goals* with 17 goals and 169 associated targets requires a more programmatic and integrated approach and a need to re-think development work in general.³⁵ This also applies to the technical support to land consolidation.

FAO experiences from the region show that land consolidation projects are often hampered by low land mobility as many want to consolidate but relatively few landowners are interested in selling land parcels and few can afford to purchase additional land.³⁶ The re-allotment planning,

³² Ibid.

³³ Hartvigsen, M. (2016): *Land consolidation in Central and Eastern Europe – Integration with local rural development needs*. Paper presented at World Bank Land and Poverty Conference, March 2016.

³⁴ Schmidt-Kallert, E. (2004): *A Short Introduction to Micro-Regional Planning*. FAO. Budapest.

³⁵ <https://sustainabledevelopment.un.org/?menu=1300>

³⁶ Hartvigsen, M. (2014a): *Land Mobility in a Central and Eastern European Land Consolidation Context*. Nordic Journal of Surveying and Real Estate Research. Volume 10, Number 1, 2014.

Weblink: <http://ojs.tsv.fi/index.php/njs/article/view/41460>

in particular in a voluntary land consolidation approach, becomes very difficult if no such land pool is available to catalyze the process. Hence, it becomes important to find ways to increase the land mobility. In many countries in Western Europe, state land banks or land funds are established to support the land consolidation instruments in this respect. The land bank purchases, often on normal land market conditions, land from private owners willing to sell in a short period before a land consolidation project is launched. This land pool is then used to catalyze the re-allotment planning, and the land is sold again by the land bank in the land consolidation process and the revenue goes back into the land bank and can be used to catalyze the next project. Many countries in Central and Eastern Europe have large reserves of state owned agricultural land after the finalization of land reforms. In Lithuania, 400,000 ha remains in state ownership and in FYR Macedonia, 240,000 ha of agricultural land remains in state ownership.³⁷ The possible synergies between land consolidation and land banking instruments in a Central and Eastern European context have been discussed at several regional land consolidation conferences and workshops during the last decade. However, the situation is that land banking in connection with land consolidation projects has so far largely failed and the potential remains unused.³⁸ There are a number of reasons for this and some of them are country specific. However, a general explanation appears to be related to the organization of state land management 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.

4. The way forward

In 1973, when Hans Meliczek was looking back at the work on land consolidation of FAO during 1945-1973, he emphasized the importance of i) implementing pilots before scaling up to a full programme, ii) adopting proper legislative provisions, iii) establishing land funds to support the land consolidation process and iv) integrating land consolidation with improvement of agricultural infrastructure and other measures for local rural development.³⁹ As discussed in Section 3, these recommendations are all still valid when supporting the countries in the ECA region in building up operational national land consolidation programmes.

The experiences from many countries in the region show that it is often a long and not always straightforward process to develop a fully operational national land consolidation programme and also more complex than anticipated 10-15 years ago when the FAO regional land consolidation programme was launched. The political support can easily be lost in the process

³⁷ Hartvigsen, M. (2015a): *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*. FAO Land Tenure Working Paper 26. P. 36-41 and 67-69.

³⁸ Ibid, p. 49.

³⁹ Meliczek, H. (1973): *The work of FAO and experiences in land consolidation*. Land Reform, Land Settlement and Co-operatives, FAO. Rome, 1973. Number 1, 50-63.

as governments and key persons in ministries and other public institutions are replaced. However, the political support and the drive for finalizing can also come back after years of little progress. In Albania, a national land consolidation strategy was drafted with support from a FAO project during 2012-13, while the strategy was only adopted in 2016. Developing and adopting national land consolidation strategies has proven to be a very successful tool to embed the land consolidation instrument in national policy and to secure political consensus that goes beyond the life of the current government. Countries such as Lithuania, Albania and FYR Macedonia are good examples on this.

Even with strong political support, the experiences show that preparing for an operational national land consolidation programme takes time and needs to go through different stages from the first pilot implemented without specific land consolidation legislation to developing and adopting a land consolidation strategy and subsequently the legal framework. Then testing the legal framework in a second round of pilots and fine-tuning procedures and legislation based on pilot experiences. Extensive international technical assistance throughout the process will often be needed. Figure 5 illustrates the optimal process from introduction of land consolidation to an operational programme.

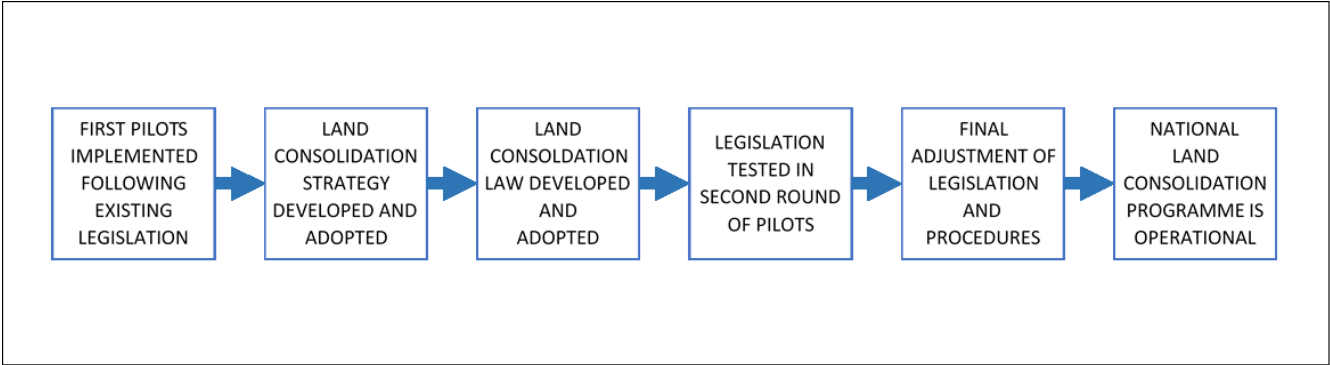


Figure 5: The optimal process from introduction of land consolidation to an operational programme.

There is in general a need to mainstream and accelerate development of operational land consolidation programmes in many countries and also to ensure an integrated broader support from civil society organizations such as farmers organizations and academia.⁴⁰ There is also a need for enhanced regional cooperation and exchange of experiences between countries. With the establishment of LANDNET, the informal network of land tenure professionals working in the field of land consolidation and land market development and the unique series of so far 18 regional workshops since 2002 (see Section 1), there is already established a very strong platform for further scaling up the regional cooperation. It is also essential for FAO to further

⁴⁰ Van Holst, F., Hartvigsen, M., Ónega Lopex, F. (2018): *Land governance for development in Central and Eastern Europe: Land fragmentation and land consolidation as part of Sustainable Development Goals*. World Bank Land and Poverty Conference, March 2018.

strengthen partnerships related to land consolidation beyond the valuable partnerships already established through LANDNET and with UNECE Working Party on Land Administration (WPLA).

Development and adoption of solid and operational land consolidation legislation is in all countries a corner stone in the process towards a national programme. However, it has proven to be very difficult to adopt fully operational legislation in the first attempt and several countries have made major amendments to the legislation after the first projects under the national programmes. In Lithuania, the first land consolidation legislation was adopted in 2004 and amended in 2010 after the first wave of projects implemented 2005-2008.⁴¹ In FYR Macedonia (see Box 1), the Law on consolidation of agricultural land was adopted in 2013, tested in pilots during 2014-17 and amended in 2018 based on pilot experiences. Most of the legal discussions are with few variations the same in all the countries preparing for a national land consolidation programme. In order to enhance the support to the programme countries, FAO decided in 2017 to conduct a regional legal study on land consolidation legislation involving around 10 European countries with ongoing land consolidation programmes. The study is conducted in 2018 and is expected to identify regional best practise and provide generic guidance on the drafting of land consolidation laws to the countries in the region fully in line with VGGT. The legal guidance will be applied in ongoing and future FAO projects and will hopefully be useful for governments and international organizations as well.

Since the 1980s, there has been a tendency in many European countries with land consolidation programmes for the emphasis of land consolidation to shift from a focus on restructuring of agriculture towards a more multi-functional approach by balancing the interests of agriculture, landscape, nature conservation, livelihood, recreation and transportation.⁴² ⁴³ Land consolidation is by nature multi-functional but the focus of land consolidation in the FAO programme countries in Europe and Central Asia is mainly on agricultural development. This is very understandable as addressing the structural problems of land fragmentation and small farm sizes in these countries is the driver behind introduction of land consolidation in the first place. However, it is recommended already from the beginning to design the land consolidation instrument so flexible that other objectives can be pursued at later development stages.

References

⁴¹ Hartvigsen, M. (2015a): *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*. FAO Land Tenure Working Paper 26. P. 36-41.

⁴² Hartvigsen, M. (2016): *Land consolidation in Central and Eastern Europe – Integration with local rural development needs*. Paper presented at World Bank Land and Poverty Conference, March 2016.

⁴³ Hartvigsen, M. (2014b): *Land consolidation and land banking in Denmark – tradition, multi-purpose and perspectives*. Danish Journal of Geoinformatics and Land Management, Year 122, Vol. 47, 1-7 (2014).

- Binns, B. (1950): *The consolidation of fragmented agricultural holdings*. FAO.
- Di Falco, S., Penov, I., Aleksiev, A., & van Rensburg, T. (2010): *Agrobiodiversity, farm profits and land fragmentation: Evidence from Bulgaria*. *Land Use Policy*, 27, 763-771.
- FAO (1955): *The State of Food and Agriculture 1955 – review of a decade and outlook*. Rome. September 1955.
- FAO (2003): *The design of land consolidation pilot projects in Central and Eastern Europe*. FAO Land Tenure Studies 6. Rome.
- FAO (2004): *Operations manual for land consolidation pilot projects in Central and Eastern Europe*. FAO Land Tenure Manuals no. 1. Rome.
- FAO (2008): *Opportunities to mainstream land consolidation in rural development programmes of the European Union*. FAO Land Tenure Policy Series 2. Rome.
- FAO (2012a): *Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security*. CFS Rome.
- FAO (2012b): *Pilot evaluation: Land consolidation in Konya Region, Cumra District, villages Inli and Dinlendik (2010-2012)*.
- FAO (2017a): *Policy note on land abandonment and recommendations for policy advice on introduction of a land consolidation instrument in Armenia*. Prepared under GCP/ARM/006/EC.
- FAO (2017b): *Report on the legal framework for land consolidation and the draft Law on Land Consolidation in Ukraine*. TCP/UKR/3601.
- FAO (2018): *Empowering Smallholders and Family farms in Europe and Central Asia - Regional Synthesis Report*. FAO REU Budapest.
- Haldrup, N.O. (2011): *Land registration in developing countries – An introduction*. Lambert Academic Publishing.
- 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. Web link: <http://www.fao.org/docrep/017/aq097e/aq097e.pdf>

- Hartvigsen, M. (2013b): *Land Reform and land fragmentation in Central and Eastern Europe*. Land Use Policy 36 (2014), 330-341. Weblink: <http://www.sciencedirect.com/science/article/pii/S026483771300166X>
- Hartvigsen, M. (2014a): *Land Mobility in a Central and Eastern European Land Consolidation Context*. Nordic Journal of Surveying and Real Estate Research. Volume 10, Number 1, 2014. Weblink: <http://ojs.tsv.fi/index.php/njs/article/view/41460>
- Hartvigsen, M. (2014b): *Land consolidation and land banking in Denmark – tradition, multi-purpose and perspectives*. Danish Journal of Geoinformatics and Land Management, Year 122, Vol. 47, 1-7 (2014). Weblink: <http://www.journals.aau.dk/index.php/tka/article/view/987>.
- Hartvigsen, M. (2015a): *Experiences with land consolidation and land banking in Central and Eastern Europe after 1989*. FAO Land Tenure Working Paper 26. Weblink: <http://www.fao.org/3/a-i4352e.pdf>
- Hartvigsen, M. (2015b): *Integrated voluntary land consolidation – A Third model for land consolidation in Central and Eastern Europe*. FAO Land Tenure Journal 1-2015, 9-43.
- Hartvigsen, M. (2016): *Land consolidation in Central and Eastern Europe – Integration with local rural development needs*. Paper presented at World Bank Land and Poverty Conference, March 2016.
- Lerman, Z. et al. (2004): *Agriculture in Transition – Land Policies and Evolving Farm Structures in Post-Soviet Countries*. Lexington Books.
- Meliczek, H. (1973): *The work of FAO and experiences in land consolidation*. Land Reform, Land Settlement and Co-operatives. FAO. Rome, 1973. Number 1, 50-63.
- Palmer, D., Munro-Faure, P. and Rembold, F. (2004): *Land consolidation and rural development in Central and Eastern Europe*. ZfV - Zeitschrift für Geodäsie, Geoinformation und Landmanagement 2/2004.
- Riddell, J. and Rembold, F. (2002): *Farm Land Rationalisation and Land Consolidation: Strategies for Improved Land Management In Eastern and Central Europe*. Paper presented during the International Symposium” Land Fragmentation and Land Consolidation in CEEC: A gate towards sustainable rural development in the new millennium; Munich, February 2002.
- Schmidt-Kallert, E. (2004): *A Short Introduction to Micro-Regional Planning*. FAO. Budapest.

Törhönen, M-P (2016): *Keys to Successful Land Administration - Lessons Learned in 20 Years of ECA Land Projects*. World Bank Group.

USAID (2011): *USAID Country Profile – Property Rights and Resource Governance - Kyrgyzstan*.

Van Holst, F., Hartvigsen, M., Ónega Lopex, F. (2018): *Land governance for development in Central and Eastern Europe: Land fragmentation and land consolidation as part of Sustainable Development Goals*. World Bank Land and Poverty Conference, March 2018.

BIOGRAPHICAL NOTES

The author is since 2015 working for the Food and Agriculture Organization of the United Nations (FAO), the Regional Office for Europe and Central Asia, as Land Tenure Officer and Delivery Manager of the FAO Regional Initiative in support of smallholders and family farms. He graduated as Chartered Surveyor in 1991 from Aalborg University, Denmark. In 2015, the author defended at Aalborg University his PhD Thesis “Land Reform and Land Consolidation in Central and Eastern Europe after 1989 – Experiences and Perspectives”. In his professional career, he was during 1991 – 2006 employed by the Land Consolidation and Land Banking Unit of the Danish Ministry of Food and Environment. During 2006 – 2015, he was Head of the Land Management Section at Orbicon A/S, a private Danish consultancy. He has over the years been responsible for the implementation of a large number of land consolidation projects in Denmark. During 2000 - 2015, he worked as international consultant and team leader for FAO, the World Bank and others on projects in relation to land consolidation, land management and rural development.

CONTACTS

Morten HARTVIGSEN
Land Tenure Officer / Regional Initiative Delivery Manager
FAO Regional Office for Europe and Central Asia
Benzur utca 34
1068 Budapest
HUNGARY
Tel. +36 30 559 8455
Email: Morten.Hartvigsen@fao.org

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Morten Hartvigsen (Hungary)

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