

**Towards Improved Farm Structures and Rural Land Market Functioning:
Policy Options based on Lessons from European Experience**

Background Report for
World Bank Systematic Country Diagnostic for Armenia



Frank van Holst
Netherlands Enterprise Agency RVO.nl
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1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

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Contents

Acknowledgements.....	4
Summary	5
I The context of small scale fragmented farms in CEE countries.....	6
II Characteristics and trends of rural land markets in Armenia	7
2.1 Land use and distribution	7
2.2 Farm size and structure	7
2.3 Ownership and lease of land	8
2.4 Land consolidation	10
2.5 Public infrastructure and fragmented land use	10
2.6 Rural land market functioning	12
2.7 Conclusions	13
III Policy options for improved farm structures and rural land market functioning.....	14
3.1 Need for a comprehensive policy and legal framework	14
3.2 Land consolidation	16
3.3 Use of public land and land funds.....	19
3.4 Land lease market development	21
3.5 Pre-emption rights	23
3.6 Land taxation and registration costs.....	24
3.7 Framework for intervention	24
IV Setting up the Policy framework.....	26
4.1 Awareness raising and promotion	26
4.2 Phases of introduction	26
4.3 Capacity building and donor support.....	27
V Summary of recommendations	28

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Summary

About 73 percent of the arable land in Armenia is privately owned. Privatization of land in Armenia was mainly done in the 1990s but continues until now. Privatization resulted in 340,000 family farms in 1993 with between 1.2 and 1.4 ha fragmented into an average 2 to 3 parcels. More than half of the total agricultural land is pasture land in the mountainous areas that are mainly community and state owned. About a fifth of the agricultural land is used for intensive cropping. Annual turnover of agricultural land is about 1.6 percent which is too low to correct inefficiencies in the farm structure. Even if mobility of agricultural land would increase to 2-3 percent annually, it would take at least 50 years to double the current average farm size in Armenia. The lease market is difficult to characterize since arrangements are mainly informal that does not contribute to security for farmers to invest. The current farm structure hampers technological development and modernisation and is one of the factors contributing to the abandonment of agricultural land. There is also limited government support to overcome the problems.

The current situation needs a coordinated policy approach with different agricultural land related policies, irrigation policy and tax policy to be introduced or amended, besides a suitable legal framework proposing different land consolidation and land banking modalities. A range of new laws, policies and programs is needed to strengthen land market activity and reduce land fragmentation. International experience suggests that the following measures have potential for Armenia:

- **Land Consolidation Programs:** Different approaches to land consolidation could be used to augment current land exchange between private partners and the government. These include comprehensive voluntary land consolidation and majority based land consolidation. Wherever possible, land consolidation should be combined with irrigation restructuring.
- **Review of the Land Lease Framework:** A better regulated, more active lease market is an effective means to improve access to land when sales activity is low, particularly for people with limited access to land. Improved security of tenure can be achieved through better regulation of tenancy duration, price range, automatic right of renewal, contract dispute resolution, and succession rights.
- **Improved Management of Community Land Funds:** The state and community land that remained after privatisation does not contribute adequately to the sustainable development of farms. The role of current Land Fund activities, particularly in *marzes* with more arable land, should be reviewed to assess their contribution to strengthen the farm structure.
- **Review of Pre-emptive Rights (rights of first refusal):** Many countries grant tenants a pre-emptive right (first refusal) to buy the land they are leasing. Pre-emptive rights can also be granted to relatives and/or neighbouring farms and can be used in combination with retirement schemes and inland consolidation areas.
- **Review of Land Taxation:** The level of land transaction taxes (selling/purchasing) and land use taxes can influence the level of activity by current and potential land-owners on land markets. Review could begin by considering the potential impact of altering the level of land taxes on farm structure and land market activity.
- **The Integration of Equity and Inclusiveness in the Policy and Program Instruments described above:** Measures to improve access to land and secure better tenure rights should be oriented to the interests of women and young entrepreneurs.

I The context of small scale fragmented farms in CEE countries

Most transition countries in Central and Eastern Europe face enormous challenges in developing a viable land structure. Due to restitution processes and socially engaged policies of privatization, wide spread land fragmentation is present. Figures in many countries show that the average farm size is relatively stable. Although data about land markets and land mobility are not easily available, it is clear that land sales markets are not functioning well. Some new EU Member States in Central and Eastern Europe show high rates of land mobility through rental markets. The situation in Armenia is comparable with many other countries in the region. Privatization was mainly done in the 1990s but continues until now as state and public land still represent a relatively large share of agricultural land. Figures of Armenia over the last 20 years illustrate minimal change in average farm and plot size.

During the last decade, using experience from Western European countries, land consolidation has been promoted in the region as instrument for dealing with land fragmentation problems. Policies and instruments are often still in testing/pilot phase with only a few countries (e.g. Czech Republic, Serbia, Slovakia, Slovenia and Lithuania) with running land consolidation programmes¹. Although (mostly anecdotal) evidence on the success of instruments is available, the step from testing to mainstreaming appears to be difficult due to different reasons. Some of these are the (general) low awareness among Governments of the problem, lack of capacity to formulate enabling policies and legislation, and hesitation to act due to political sensitiveness of land issues. One of the experiences of past land consolidation projects in transition countries (mostly on a pilot basis) is the strong attachment to land. This is partly caused by experiences during the central planning period in their countries. Land policies ranged from restriction (former Yugoslavia, Poland) to complete loss of private property of land (except the odd garden plot) in many other centrally planned economies.

Until some years ago, the general perception in the region has been that a functioning land market will solve the problem. Emphasis has been on well, functioning cadastre systems and land registration as a precondition for smooth and transparent market functioning. The main focus in this work has been on the infrastructure needed while little attention was paid to solving issues like unsolved inheritance, informal agreements not yet registered, etc. Any intervention in the land market, either by land consolidation or other measures, will have to deal with these issues as well.

This outline is based on review and analysis of available data and a visit to Armenia from 18 to 23 June 2017. It aims to contribute to selecting the policy options and setting the preconditions in Armenia needed to get a well-functioning rural land market to enlarge farms and to reduce fragmentation. As shown in this report, experience in the region is still limited which made it necessary and relevant to refer to experience in Western European countries. Options are not limited to land consolidation but include improved management of state land, land banking, agricultural lease regulation and some other supporting measures. The analysis conducted for this report draws on data collected from the Agricultural Census data of 2014 and data from the Real Property Cadastre. Qualitative data are based on several reports, presentations and interviews with experts and policy makers listed in the annex. Although further analysis is needed, it is clear that the current situation provides a serious risk for the agricultural sector which jeopardises the impact of any support to the sector. While Western European countries could organically adapt and support the sector to changing market conditions since the 1950-es, the situation in Armenia (and other countries in the region) requires a set of measures which is unprecedented in its scale and intensity to speed up this process.

¹ Experiences with land consolidation and land banking in Central and Eastern Europe after 1989 – Land Tenure Working Paper
FAO, Hartvigsen, M. (2015)

II Characteristics and trends of rural land markets in Armenia

2.1 Land use and distribution

In total 2.045.000 hectare agricultural land is present with more than 50% of pastures in mountainous areas which are mainly in community or state ownership. In total, 446.000 ha is used for intensive cropping. In addition, 42.000 ha have plantations (65% orchards, 34% vineyards and 1% berries²), mainly in private ownership. Most arable land is located in the Aras river valley and along its tributaries (e.g. in Ararat, Armavir, Shirak, Kotayk and Aragatsotn regions) and around Lake Sevan (Gegharkunik). Most plantations are located in Armavir, Ararat and Aragatsotn regions. Referring to table 1 below, a large percentage of arable land is unused or abandoned.



Figure 1 Administrative division of Armenia

Area (Marz)	Agricultural land (ha)	Arable land (ha) ³	%	Unused arable land (ha)	Meadows and hayfields	%	Perennial crops (ha) ⁴	%
Country	472.496	346.042	73,2%	114.822	95.122	20,2%	31.332	6,6%
<i>of which:</i>				33.2%				
Aragatsotn	58.004	46.685	80,5%	14.934	6.889	11,9%	4.430	7,6%
Ararat	30.430	18.308	60,2%	4.391	3.351	11,0%	8.772	28,8%
Armavir	51.309	32.989	64,3%	8.286	7.372	14,4%	10.949	21,3%
Gegharkunik	79.314	58.091	73,2%	16.939	21.216	26,7%	7	0,0%
Lori	56.248	31.644	56,3%	14.305	24.296	43,2%	308	0,5%
Kotayk	41.331	28.029	67,8%	17.078	10.617	25,7%	2.685	6,5%
Shirak	73.680	66.393	90,1%	13.464	7.240	9,8%	46	0,1%
Syunik	39.067	33.250	85,1%	9.719	4.907	12,6%	911	2,3%
Vayots Dzor	16.272	11.017	67,7%	6.481	3.932	24,2%	1.324	8,1%
Tavush	26.692	19.576	73,3%	9.169	5.296	19,8%	1.820	6,8%
Yerevan	148	60	40,7%	56	6	4,1%	81	55,0%

Table 1 Agricultural landuse of agricultural holdings (Agricultural Census 2014)

2.2 Farm size and structure

Privatization resulted in 1993 in 340.000 family farms between 1,2 and 1,4 hectare, fragmented into an average 2 to 3 parcels. The Agricultural Census distinguishes two main farm types: 1) holdings without legal status which includes individual households and individual farms of members of horticultural associations, and 2) holdings with legal status being legal entities and private entrepreneurs. The second category are the more larger, commercial companies which comprise of less than 0,1% of all farmers and about 4% of all private land. This paper focuses on the first category of holdings without a legal status. Figures in 2014 show that average farm size in this category did not improve significantly while fragmentation was maintained. Currently in total, 345.875

² Agricultural Census of the Republic of Armenia (2014)

³ The area is less than the total since state and community land are not included

⁴ Idem

farms have an average size of 1,48 ha with some regional differentiation (from 0,72 ha in Ararat to 2,54 ha in Shirak).⁵ The table below shows that 89% of the farms are below 3 ha, using 51% of the land. Almost half of the holdings have three or more plots (figure 3).

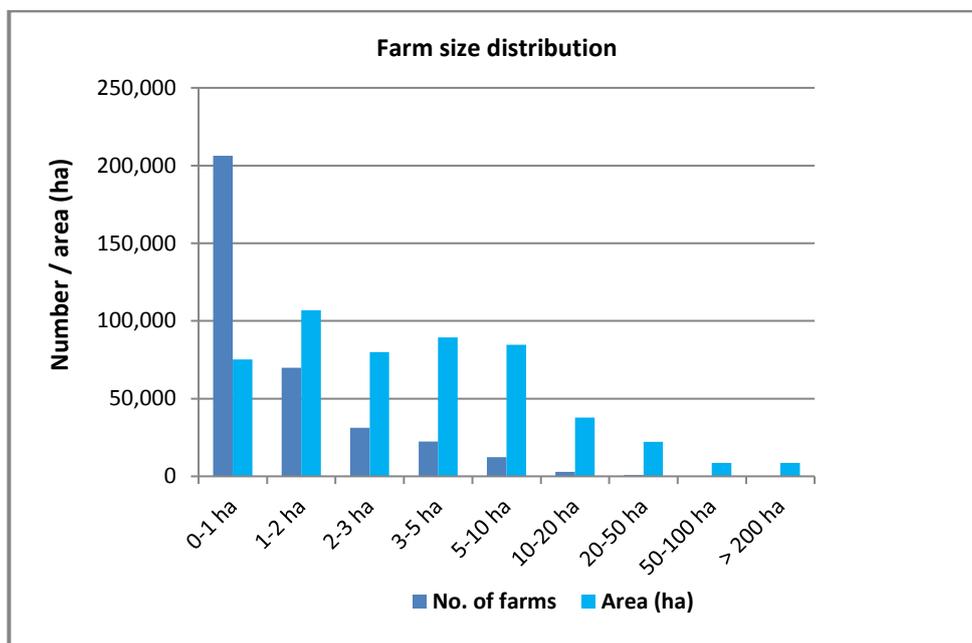


Figure 2 Farm size and land-use (Agricultural Census 2014)

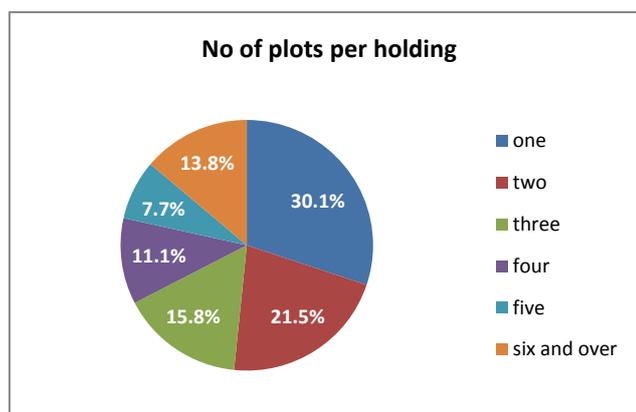


Figure 3 Number of plots per holding (Agricultural Census 2014)

2.3 Ownership and lease of land

2.3.1 Private land

Arable land is mainly in private ownership (73% - 325.000 ha). A large part of the state land remaining after privatization has been transferred to 844 rural municipalities (24% - 109.000 ha) while the rest remains under state management (3% - 13.000 ha)⁶. Agricultural Census data state that about 65.000 ha (of which 42.000 is arable land and plantations) is leased. It is not clear whether this includes lease of communal land. Private lease seems to be common but is mostly on an informal basis (not registered) and short-term which provides insufficient basis for sustainable business development. The area of lease of private land registered in the Cadastre in the past eight years is 356 ha per year with its peak in 2010 (946 ha) and its minimum in 2016 (81 ha). Private lease is regulated by the Land Code. Tenancy security is limited since issues like the tenancy duration

⁵ Agricultural Census of the Republic of Armenia (2014)

⁶ Report on the Land Fund of Republic of Armenia and its allocation on -1/07/2016, SCC of RA

(minimal term), the price range, automatic right of renewal, mechanisms to resolve contract disputes, succession rights and right of pre-emption in case the land owner sells, are not defined or regulated.

2.3.2 Community land

Arable community land is distributed fairly even over the country as illustrated in Table 2.

Region	Community land (ha)	Leased out
Aragotsotn	10.123	43%
Ararat	6.076	63%
Armavir	6.824	47%
Gegharkunik	26.919	54%
Kotayk	13.231	39%
Lori	7.034	33%
Shirak	16.723	52%
Syunik	10.990	49%
Vayots-Dzor	4.557	23%
Tavush	5.906	10%
Yerevan	565	
	108.947	45%

Table 2. Arable community land per region

State and community land can be alienated either free of charge, by direct sale (max. 1 ha), through auction or exchange. Direct sale of municipal lands for purposes of enlargement of private parcels is possible if it cannot be disposed as a separate land unit and provided that the area does not exceed the area of the private parcel. This is difficult due to 1) the fact that it is difficult to define a parcel, which must be regarded as a separate land unit and 2) absence of flexible mechanisms of sale of lands for land consolidation purposes. Practical issues that hamper direct sale have been reported but it is not completely clear to what extent this hampers transactions currently⁷.

Exchange of municipal lands with private lands is difficult due to unclear regulations, e.g.;

- What is the basis for exchange: value or land area?
- What is the value of the exchanged parcels?
- Which value should be taken as a basis: market value or cadastral /normative/ value of lands?
- In case of market value, what is the value before the exchange is conducted or the value of newly formed land parcels after the exchange?

Deeper analysis is needed to assess whether these practical issues currently block exchange of parcels. Annually around 1.100 ha of community land has been sold on average during the past five years (from a total of 109.000 ha).⁸

Table 2 shows that about 45% of all community land is leased out. Reasons for not leasing out land may be lack of (functioning) irrigation infrastructure. Revenues of sale and lease flow back to local budgets. A World Bank study of 2002 states: 'Despite the existence of pre-defined cadastral coefficient of indexation, the village councils have been given considerable discretion in regulating access to state land and to decide on the terms of leasing. There are few requirements, such as minimum lease price (not less than the land tax of the same land plot) and duration of lease (not more than 10 years). The system of land leasing is fully decentralized and rather non-transparent, which potentially leaves room for abuse and uneven treatment by the village councils.'⁹ Some of these requirements appeared to have changed e.g. the lease term but further analysis is needed. Current data on lease terms used in practice are not available. Although earlier publications suggest that lease terms of 1-3

⁷ Presentation by N. Grigoryan and K. Khachaturyan in Prague FAO REU Regional Workshop on Land Tenure and Land Consolidation (2010)

⁸ State Committee of the Real Property Cadastre (June 2017)

⁹ Growth Challenges and Government Policies in Armenia, World Bank Country Study (2002)

years are common, anecdotal evidence¹⁰ shows that longer lease terms of 10-25 years are common as well. It seems that capacity of the municipalities to manage and/or alienate community land is limited leading to loss of revenues and low impact on the local farm structure (e.g. substantial differences between prices of alienation of community land compared to market prices).¹¹

2.4 Land consolidation

Armenia has limited experience with land consolidation approaches. Unlike some other transition countries (e.g. Western Balkan areas) Armenia has no experience prior to 1990 due to the kolkhoz system in which all land had been nationalized. FAO has provided assistance to land consolidation in the period 2001-2006. In 2001 a pre-feasibility study was done to assess the potential to introduce land consolidation. One pilot project (Nor Erzinka village in Kotayk Province) has been implemented in the period 2004-2006 as part of the project 'Support to the preparation and implementation of land consolidation and improved land management schemes'. The project involved 100 land owners on a voluntary basis in a combination with sale of community land that involved farmers which contributed to the good result of the pilot project. Average parcel size increased from 0,47 to 1,25 ha and average holding size from 1.25 to 2.50 ha. Some 80 to 90 ha of previously arable land was converted into orchards. Based on the experiences a National Land Consolidation Strategy was prepared which was not formalized. In 2011 a 'farmland Consolidation Concept' was developed but until now, no follow-up took place and no legal framework was put in place. A lack of funding seems to be the main reason for this.¹²



Orchards in Nor Erzinka Municipality

2.5 Public infrastructure and fragmented land use

The land structure and public infrastructure are strongly interconnected. A main success factor in reducing land fragmentation in Western Europe is the combination of land consolidation with improvement of infrastructure like road access and water management. A main factor influencing agricultural production in Armenia is availability of irrigation facilities. The first irrigation systems date from the 4th century while the first major state projects started in the 1920s. The actual irrigated area declined from more than 300.000 ha in 1985 to 176.000 ha around 10 years ago. Main irrigated areas are located in Ararat, Armavir, Aragotsotn, Kotayk and Shirak¹³. Fourteen Water Users Associations currently manage contracts for 130.000 ha of land out of which 110.000 ha is actually irrigated (Table 2).

¹⁰ Discussions in Lenughi municipality in Armavir region and Nor Erzinka in Kotayk region (June 2017)

¹¹ Modernisation and commercialisation of Armenian agriculture, Technical Note 6: Strengthening Agricultural land Markets. D. Egiashvili (2016)

¹² Experiences with land consolidation and land banking in Central and Eastern Europe after 1989 – Land Tenure Working Paper
FAO, Hartvigsen, M. (2015)

¹³ FAO Aquastat Survey 2008

Region (Marz)	Irrigated area (ha)
Ararat	24.171
Armavir	40.215
Kotayk	10.878
Aragotsotn	18.954
Gegharkunik	4.601
Shirak	10.147
Vayots Dzor	3.323
Syunik	3.533
Tavush	4.000
Lory	2.687
Yerevan	7.732
Total	130.241

Table 3 Areas under irrigation management¹⁴

Major factors that have contributed to the decline of irrigated area are the widespread deterioration of the irrigation conveyance systems, high pumping costs, the disintegration of the former collective farms into many small private farms (with a size of 1 to 2 ha), and drainage problems, particularly in the Ararat Valley, where groundwater tables are shallow. Surface irrigation is practised on more than 90 percent of the area equipped for irrigation and can be divided into four categories of irrigation: furrow, border strip, flooding or basin, using hydrants and flexible hose systems¹⁵.

In 2013, the World Bank approved the US\$37,5 million ‘Irrigation System Enhancement Project’ which aims to 1) reduce the amount of energy and to improve the irrigation conveyance efficiency in targeted irrigation schemes, and 2) to improve the availability and reliability of important sector data and information for decision makers and other stakeholders. The four-year project has been extended with one year and will be finalized in 2018.

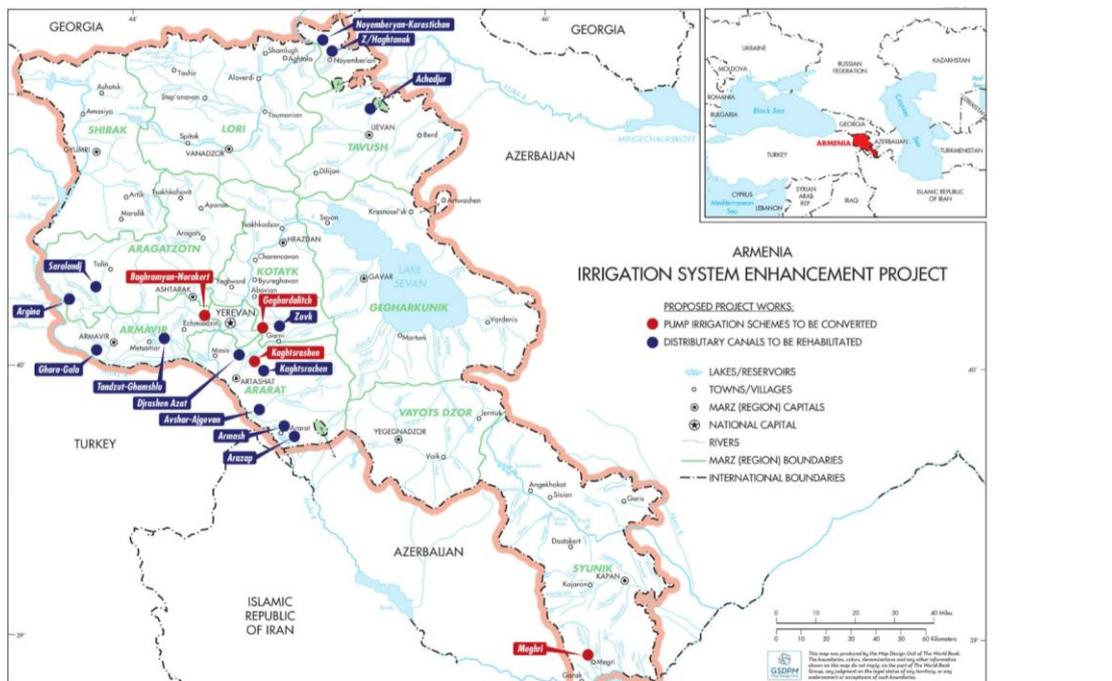


Figure 4. Location of irrigation development sites – World Bank Irrigation Enhancement Project

The project foresees to convert four systems (marked in red above) from pump-based irrigation to gravity irrigation and rehabilitation of 52 km of outlet canals in 13 systems (marked in blue) to minimize losses of high-

¹⁴ State Committee for Water Economy
¹⁵ FAO Aquastat Survey 2008

cost pumped water. In total, 10.170 ha of irrigated area ha is served by the project. The land tenure and the parcel fragmentation system is mentioned as a point to be reviewed during the design phase of the project.

A new Irrigation System Enhancement Project is currently starting with US\$50 million support from the Eurasian Development Bank. Main components of the project are¹⁶ 1) conversion of 8 pump-based systems to gravity systems (US\$11,8 mln) affecting 1.826 ha of existing irrigated area and expanding it with 1.373 ha, 2) rehabilitation of main canals (US\$12 mln for 25 objects) expanding existing areas with 2.093 ha and 3) rehabilitation of 277 km of tertiary systems (US\$20 mln) in the following regions; Aragatsotn (24,96 km - 717 ha), Ararat (83,95 km - 2230 ha), Armavir (82,715 km - 2.241 ha), Gegharkunik (11 km - 384 ha), Kotayk (62,37 km - 1.103 ha) and Shirak (12,81 km - 100 ha). The project will run for five years. Design work started in 2017 while first construction work is planned from Spring 2018 onwards.

2.6 Rural land market functioning

Figures between 2009 and 2016 show a fluctuating agricultural land market with mobility rates ranging from 1.15 to 2.04 % and an average of about 1.6 % land mobility annually¹⁷. This includes turnover of community land and sale of renting rights of agricultural land. This is considered to be low, taking into account the small farm size at present and comparing it with rates in Western Europe¹⁸.

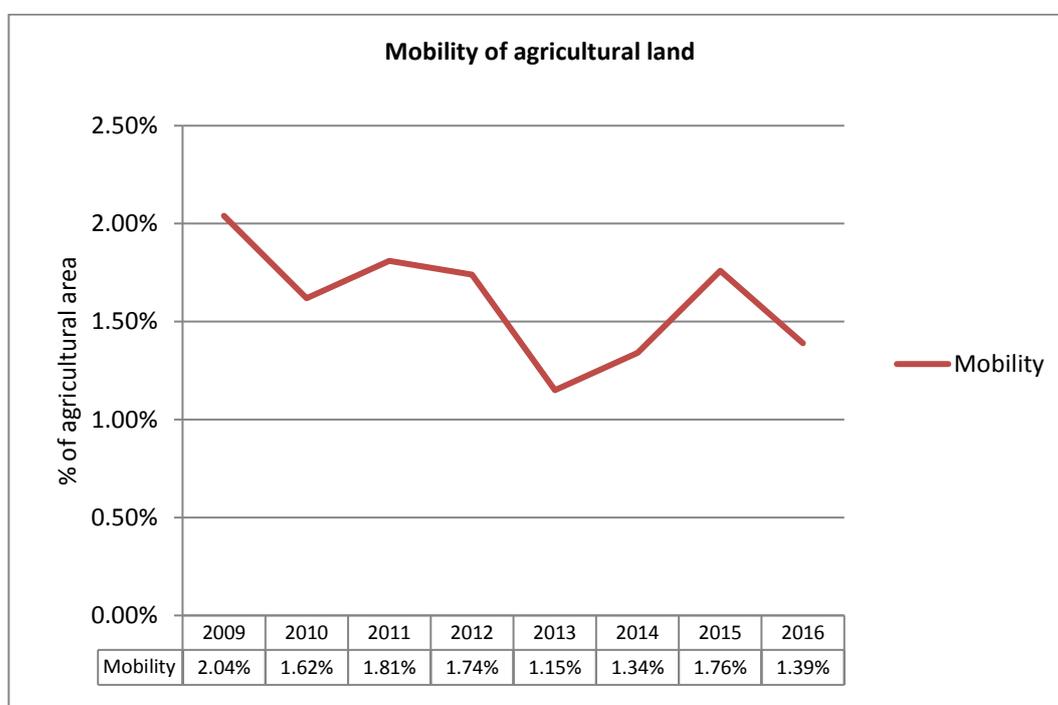


Figure 5 Mobility rates in the agricultural land sales market

Procedures for property transfer and registration are fairly smooth with reasonable fees and processing time.¹⁹

¹⁶ Oral communication State Agency "Water Sector Project Implementation Unit" of the State Committee

¹⁷ State Committee of the Real Property Cadastre (June 2017)

¹⁸ Ciaian, P., Kancs, A., Swinnen, J, Van Herck, C. and Vranken L. (2012). Key Issues and Developments in Farmland Rental Markets in EU Member States and Candidate Countries. Working Paper N° 13 – FP7-KBBE-Comparative Analysis of Factor Markets for Agriculture across Member States.

¹⁹ Modernisation and commercialisation of Armenian agriculture, Technical Note 6: Strengthening Agricultural land Markets. D. Eshiasvili (2016)

No other policy instruments are in place to stimulate mobility of land or land-use (e.g. land banking, retirement schemes, property transfer tax exemptions). In some cases, pre-emption rights are granted (e.g. for leaseholders).

2.7 Conclusions

Although mobility of agricultural land is comparable with some Western European countries, farm enlargement and reduction of land fragmentation will not be realized by normal land sales market functioning. Even if mobility would increase to 2-3% mobility annually, the transition of Armenian farms would take at least 50 years to double the current average farm size. The lease market is difficult to characterize since arrangements are mainly informal which does not contribute to security for farmers to invest. The current farm structure hampers technological development and modernisation and is one of the factors contributing to abandonment of agricultural land. Government support to overcome the problems is limited. The current situation needs a coordinated policy approach with different agricultural land-related policies, irrigation policy and tax policy to be introduced or amended, besides a suitable legal framework proposing different land consolidation and land banking modalities. Substantial capacity development will be needed to introduce and operationalize the new policy framework.

III Policy options for improved farm structures and rural land market functioning

3.1 Need for a comprehensive policy and legal framework

The reality in Armenia - like in many of the transition countries of Central and Eastern Europe (but also in different regions in Western Europe) - is a general lack of mobility of agricultural land. This can be caused by informal institutions (for instance, strong attachment to land, informal dividing of land), or regulatory frameworks (e.g. high transaction costs). The inability of “normal” land sales or lease markets to correct fragmentation requires various mutually supportive instruments taking into account the broader policy context of rural development.

Such approach should focus on all issues that may trigger and worsen fragmentation and low land mobility like e.g.:

- Little experience and lack of (affordable) information about land market (prices) availability
- Large share of unknown and undivided ownership
- Land transaction procedures are too bureaucratic and expensive in relation to the land value
- Farmers lack financial liquidity to invest and to scale up
- Land is often not accepted as collateral for bank loans
- Cadasters and land registration systems are not up to date
- The land market is over-regulated, under-regulated or regulated in a non-coordinated way
- Old conflicts related to enforced land exchange are not yet solved due to lack of documentation
- Inheritance practice leads to splitting up parcels (often not formalized)
- Large scale infrastructure (based on the scale of the former centralized production units) does not fit well with the current land use structure and is not well maintained
- Lack of organizational capacity and cooperation at local level for development and maintenance
- People, not able to farm actively, hesitate to sell or lease out their land
- Lack of awareness among policy makers about the land structure as a crucial pulling factor of the rural economy

Not all issues are related to the land sales market. Better regulating and stimulating the lease market can be an alternative for low land mobility in the sales market and contribute to more equal access to land (e.g. landless people, small farmers).²⁰ Sales and rental markets are different mechanisms with distinct characteristics in terms of transaction costs or institutional framework. High transaction costs, inefficient financial markets or certain informal institutions that hamper sale markets, may be overcome by rental markets. In such a way, rental markets are seen in some cases as a more efficient mechanism (compared with sale markets) to achieve proper land use.

All issues above should be reviewed while looking specifically at the Armenian situation. The policy options presented in this report should be:

- Tailored to the situation in Armenia and if needed, differentiate between geographic areas;
- Inclusive in a sense that the position of minorities, women, less favoured people (e.g. small farmers or landless people) is fully taken into account;
- Environmentally sustainable in a way that natural values, precious landscape patterns and proper use of scarce resources (e.g. water) are secured;
- In line with all other general principles of responsible governance of tenure of land, fisheries and forests.²¹

Table 4 is a first attempt to structure the issues at stake in Armenia in relation to the current policy framework. Further analysis is needed to assess in more detail what are the most critical points in Armenia.

²⁰ ‘Land markets in Europe: characteristics, problems and policy options’, presentation by L. Vranken in the Fourth international LANDNET workshop on Land Market Development and Land Consolidation (FAO REU, 2012)

²¹ Section 3B of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (CFS / FAO 2012)

Table 4 Possible intervention areas for farm enlargement²²

Issues that directly ²³ hamper land market functioning to create better (larger / consolidated) farms	Objective ²⁴	Instrument	Current main related legislation
Extreme land fragmentation discourages farmers since multiple transactions and parties are needed to create impact	Project based land consolidation to realize chains of plot exchanges and/or complete re-allotment in targeted areas	Land consolidation projects	Land code: at the moment, simple land exchange is included but project-based land consolidation is not incorporated
Farmers are inexperienced in the land sales and lease market and services are limited	Increase land mobility by <ul style="list-style-type: none"> • improve services (information, model contracts, reference prices, etc.) 	Public rural real estate services	Land code, Law on Local self-government
Community land is not used optimally to stimulate enlargement of farms and land market functioning	Efficient use of community land by improving the sale and lease practices of municipalities to improve farm structures	State and community land management; Land consolidation	Land Code, Law on Local self-government
Land plots are poorly serviced by public infrastructure (e.g. lack of access roads, non-functioning irrigation or drainage)	Project based land consolidation by combining infrastructure development and land re-allotment in targeted areas	Land consolidation projects (as part of ongoing programmes for irrigation, drainage)	Land code
Land transaction procedures are too costly and lengthy for transaction of small plots	Increase land mobility by simplifying and reducing costs of transactions as part of land consolidation, land exchange, sale of small plots and inheritance	Land taxes and tax exemptions; Land consolidation projects	Land Code, Law on Real Property Cadastre Property, Law on Land Tax
Limited access to credit hampers farmers to buy land and enlarge their farms	Increase land mobility by establishing an attractive land lease framework that offers land tenure security	Improve land lease regulation	Land Code, Civil Code and Law on State Registration of Rights Towards Property
Land registration is not up to date due to many unsolved inheritance cases, overlapping borders, absent owners	Increase land mobility by stimulating and facilitating the updating of land registration in targeted areas	Land consolidation projects	Law on State Registration of Rights Towards Property
People, not able to farm actively, hesitate to sell or lease out their land leading to land abandonment	Increase land mobility by stimulating regulated mid-term lease	Improve land lease regulation; Public rural real estate services	Land Code and Civil Code

²² Source: Author

²³ Issues that indirectly hamper land market functioning such as economic or political stability, lack of general support to the agricultural sector are not included in this table.

²⁴ Solutions are limited to instruments directly related to land market. Other instruments (e.g. improved credit systems) are part of the solution but beyond the scope of this paper.

3.2 Land consolidation

3.2.1 Land consolidation approaches

Although land consolidation can be considered as an effect achieved by different efforts, the term 'land consolidation' is normally used for a project (area) based approach in which land is exchanged to achieve better parcel sizes and shapes and to reduce the number of parcels per farm. The effect is a more rational farm structure which lowers production costs and facilitates modernization and commercialization. Land consolidation is a strong intensive effort to correct and boost land market functioning.

The different land consolidation approaches can be distinguished by the following characteristics:

- Voluntary versus majority based decision making models
- Exchanging parcels versus complete re-allotment
- Agricultural versus comprehensive (broadened) land consolidation
- Small versus large scale land consolidation

Countries with a long history in land consolidation (e.g. France, Germany, Netherlands) have developed a complete package of different forms of land consolidation applied in different situations.

At one end of the range are small (10 ha) to medium scale (100-300 ha) voluntary projects that are mainly focused on agricultural production. In a facilitated approach a chain of land exchanges is negotiated leading to one overall agreement which is treated as a single transaction while formalizing it. It needs a 'light' legal framework to provide a basis for facilitation (by either government or private consultants), subsidies, registration and tax exemptions.

At the other end of the range are medium (100 ha) to large scale (up to 10.000 ha) majority based projects with multiple objectives (agricultural production, infrastructure, landscape or biodiversity preservation). In a facilitated project approach a new parcel structure (erasing former boundaries) will be developed, making space for improved infrastructure (access roads, irrigation, drainage) and contributing to proper zoning of different functions. The term 'majority based land consolidation' is used since a qualified majority decides and all land in a certain project area will be involved. It differs from the voluntary approach in the sense that it can force a minority (including unknown owners, absent owners) which does not agree, to cooperate in a framework providing protection of rights and legal safeguards. It needs a strong legal framework in addition to voluntary approaches to regulate decision making (defining qualified majorities for initiating and approving of projects), to value the land, to provide legal safeguards, to provide room for public infrastructure, to protect other rights (e.g. lease, mortgage, usufruct etc.), to register the new situation and to make financial settlements. Although enforcement is possible (after reaching the qualified majority) it should be stressed that usually a 90-95% of agreement is aimed at in an iterative, participatory and transparent process while legally protecting the interests of the remaining 5-10%. A general principle is that all participants (agreeing or not agreeing) are better off after land consolidation compared to before.

Between the two extremes, various hybrid forms exist such as voluntary approaches with a certain degree of enforcement (e.g. penalties when participants leave the process), majority-based approaches which are purely agriculturally oriented and comprehensive land consolidation using (as much as possible) existing parcel boundaries (instead of re-allotment).

Many countries in Central and Eastern Europe are considering to implement land consolidation and either are or have been engaged in testing/piloting of land consolidation while a few have actually made the step towards mainstreaming and implementing a land consolidation programme²⁵. Most of the countries that have programmes (Poland, Czech Republic, Slovakia, Eastern Germany, Slovenia and Lithuania) are now part of the EU (except Serbia) and have incorporated land consolidation as part of the EU co-financed Rural Development Programmes. All (except Lithuania) have a history prior to 1989 with land consolidation which may be one of the reasons that these countries are applying majority-based land consolidation. Lithuania is the only former Soviet state and the only country that applies land consolidation solely in a voluntary way (see box).

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

Box 1 Voluntary land consolidation in Lithuania

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

Lithuania has a voluntary form of land consolidation with a minimum requirement of 5 land owners representing at least 100 ha.

Land consolidation measures were mainstreamed as part of the EU funded Rural development Programme (2004-2006) in which 13 projects were implemented involving 4.800 ha and almost 400 owners. In the programming period (2017-2013) a total of 39 projects were carried out involving 46.000 ha and 4.500 land owners. The programme was extended in the period 2014-2020 with currently 8 projects in preparation involving 10.000 ha and 1.360 land owners. All costs related to the land consolidation procedures are subsidized with 75-85% coming from EU Rural Development Funds and 15-25% coming from national funds. Total investments (implemented and planned) is EUR 12.5 million.²⁶

Among the 14 countries in testing/introduction phase, FYR of Macedonia is probably the most advanced in introducing majority-based land consolidation besides a voluntary approach. Important lessons can be learned from this (see box).

Box 2 Majority based land consolidation in FYR of Macedonia

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

Besides being confirmed on the general principles while implementing majority-based land consolidation (see above), main lessons learnt are:

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

²⁶ Daugaliene, V. (2016). Land consolidation as measure under the national rural development programme. Presentation given in Skopje, 6 July 2016

A set of legal recommendations will be implemented in 2017 while mainstreaming (design and implementation of 16 projects) and further capacity building is programmed for the period 2017-2022, supported by co-financing and technical assistance from EU IPA funds in the period 2017-2020.

3.2.2 Options for Armenia

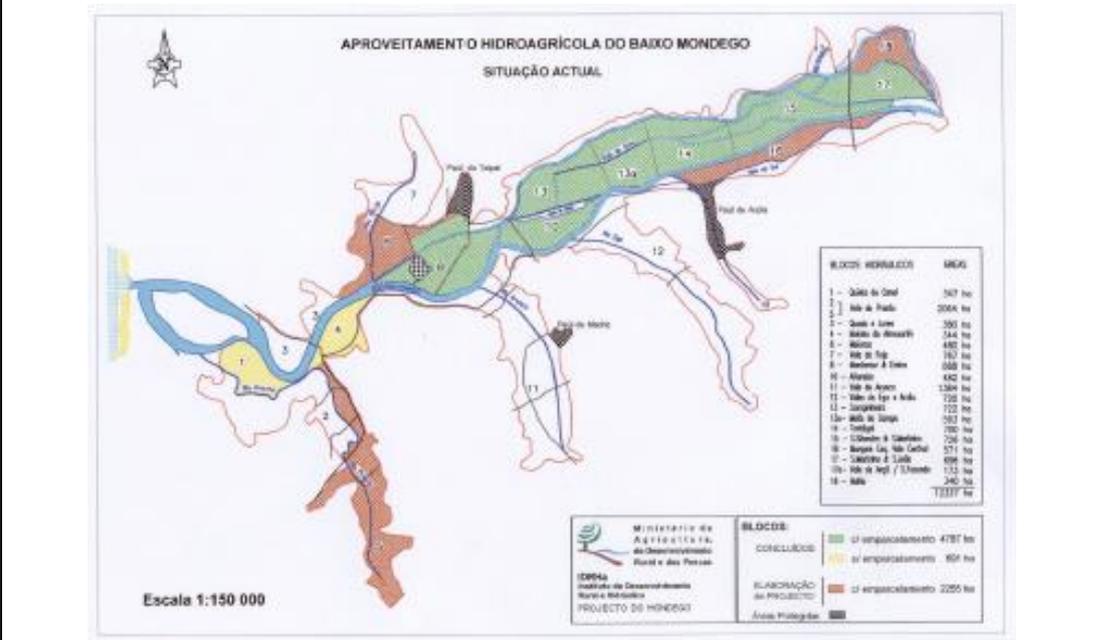
Considering the experiences in Nor Erznka pilot, other European countries (both in the 'old' EU-15 and in the Central and Eastern European region) and the state of land fragmentation in Armenia, it is proposed to introduce land consolidation.

A framework with different land consolidation instruments should be considered in order to create impact. This contains comprehensive voluntary approaches (as in Lithuania) and majority-based land consolidation (as in Serbia and FYR of Macedonia), with the latter particularly focused on areas with 1) little heterogeneity in production capacity and 2) planned improvement of infrastructure such as irrigation development. The potential to combine land consolidation with irrigation restructuring needs to be developed (see box 3 on Portugal) and is considered essential for mainstreaming land consolidation in Armenia. This can be done in combined projects or in consecutive projects (e.g. rehabilitation of intakes and main structures first, followed by secondary and tertiary structures in combination with re-parceling).

Box 3 Portugal: land consolidation and irrigation development

In Portugal land consolidation is primarily implemented as part of irrigation development. Land consolidation is used in larger integrated regional development projects like Mondego Bay. In the project, the hydraulic structures and outline of Mondego river were improved. This clears the way for improving secondary and tertiary structures for irrigation. In each of the irrigation units, land consolidation is implemented supported by land banking in which land is bought from people who want to sell and then subsequently allocated as part of the land consolidation process. Specific procedures are in place to ensure that land with unknown owners does not obstruct the process.

In total 5.000 ha of irrigated area has been consolidated in 10 different blocs (marked in green) reducing the number of parcels per owner from 3.21 to 1.1 ha and increasing the plot size from 0.4 to 1.17 ha. In total 3.7% of the area was used for public infrastructure.



The majority of public investments for agriculture in Armenia (40-45% in 2012-2015) is allocated for irrigation and drainage. Analysis of the 'Irrigation System Enhancement Project' approved by World Bank in 2013 (refer to section 2.5) shows that investments to modernize irrigation systems requires high investments (about US\$3.500 per ha) with returns coming from energy saving, savings in maintenance, increased net income on existing

irrigated areas and net income rising by expansion of irrigated areas. It is believed that return on investments can be increased substantially when irrigation development by default is combined with majority-based land consolidation. The newly started project funded by Eurasian Development Bank (refer to section 2.5) offers an excellent opportunity to start pilots and to lay the foundation for a land consolidation program.

Priority should therefore be given to areas which:

- have fertile productive arable land which is fragmented like the regions in Aras river valley and along its tributaries,
- are selected for irrigation rehabilitation, irrigation expansion or drainage improvement, and
- contain a reasonable volume of community land that can be sold or leased out (in longer term contracts)

The choice of using voluntary or majority based land consolidation depends on:

- size of the area: due to more heavy and resource intensive procedures, a minimum of 100 ha is suggested for majority-based land consolidation,
- requirements needed for public infrastructure: normally, as part of majority-based land consolidation, a small percentage of the land can be deducted for infrastructure development,
- presence of plantations: although technically possible, exchanging land with perennial crops is complicating the process. Either this land can be declared as 'non-exchangeable' or more complicated valuation systems are needed. In regions with a relatively large percentage of perennial crops like e.g. parts of Ararat and Armavir regions (refer to table 1 in section 2.1) voluntary land consolidation might be a more feasible option,
- level of homogeneity: areas with larger differences in soil quality or slope could benefit more from voluntary land consolidation,
- current plot structure of the areas: some areas are fragmented but have a good basic outline of infrastructure with regular plot shapes. In such areas, plot boundaries do not need to be erased which provides an opportunity for voluntary approaches, and
- the level of support for land consolidation in the area: selection of the form of land consolidation does not need to be made during project selection but can be part of the feasibility stage of land consolidation and be based among others on the expected level of support

Box 4 Land consolidation procedure as catalyst

While considering land consolidation instruments, it is important to acknowledge that land fragmentation has three dimensions²⁷:

1. small parcels, often with irregular shape and scattered (internal fragmentation),
2. small properties (in the sense of total amount of land owned by one person), and
3. small farms (in the sense of total amount of land managed by one farm).

All three may appear simultaneously and have different consequences in terms of agricultural performance and land use dynamics. Land consolidation mainly deals with the first point while other instruments like effective management/privatization of public land, land banking or strengthening the lease market can deal with the two other issues as well. A concentrated effort to implement land consolidation should therefore preferably be combined with other instruments to increase its impact.

An additional important issues is the 'cleaning up' effect of land consolidation. In an intensive and participatory process other - sometimes long pending - issues like unsolved inheritance cases, overlapping maps, mistakes in land registration, unclear land rights (e.g. customary rights) and informal lease, get settled and formalized to achieve the best outcome of the land consolidation process. In this way land consolidation serves as an engine to solve other problems leading to a continued higher level of land mobility after land consolidation. A clear status of the land and larger plots stimulate to invest and land being easier accepted as collateral.

3.3 Use of public land and land funds

3.3.1 Land banks and land funds

²⁷ Dealing with land fragmentation, . Dijk, T. van (2003) Eburon – Delft

Like in other countries in the region the state and community land that remained after privatisation, does not seem to contribute sufficiently to sustainable development of farms. Policies for using community land do not focus specifically on farm structure improvement. Given the potential (24% of all arable land is community land), present approaches need to be reviewed in their function of strengthening the farm structure. In various countries land banks stimulate or guide the land market in addition to land consolidation approaches.

Revolving land fund management

Various countries have established land banks or land funds to guide land markets by buying and selling land in 'revolving fund models'. Different from using a large stock of state land this model is based on actively buying, exchanging and selling land. The land bank has more or less a constant size, since it mediates between owners and institutions. Such approaches are practiced for example in Denmark, France and the Netherlands. Although differences are present in the way of regulation and management, they have in common that land is used very specifically (with more impact than privatization approaches in Central and Eastern European countries so far) to improve farm structures often as part of land consolidation projects. The land bank buys land on the market, manages it temporarily (e.g. by one year renting to farmers) and uses/sells the land to enlarge farms, improve the parcel structure and/or provide space for public facilities. This can be combined with pre-emption rights for the land bank, for example the case in France and Portugal.

Mediating in lease

In particular cases, land owners do not want to use their land, but they also do not want to sell their land. For example, attachment to land is high or leasing constructions are not trusted in the sense that they may create customary rights. In these situations, a land bank could stimulate better land use while focusing on land lease. Instead of obtaining the full property just use rights are transferred. The land bank directly rents the land to re-rent it to a third person. In the Region of Galicia in Spain, mediating of use rights serves various objectives and is combined with different tools to facilitate the process (see box 5).

Providing information and services

Although quite developed at urban level, real estate agencies do not pay too much attention to local rural land markets. This is especially the case in fragmented territories. Different reasons for this exist like comparatively lower ratio of transactions and the small value per transaction. In addition, special characteristics of rural land markets produce highly segmented markets depending, on a large extent, on local offer and demand. The combinations of these factors prevent the private sector to assume an active role in rural land markets.

A public land bank can substitute this by providing information. In order to increase land mobility, land banks can serve as intermediaries. Information concerning the availability of land and interested users can be collected (matching supply and demand of land) and published. This may include characteristics of the parcels and all data that define the potential land use and its value. Especially in fragmented areas, information costs (as part of transaction costs) can be reduced by providing this service. In more general terms, land banks may have the task to gather and publish average prices, reference prices and to provide information about procedures and transfer costs involved. Last, but not least, through increasing transparency on land markets, land banks can also contribute to a reduction of corruption.

Services like this may have an impact, since for many actors in rural areas these issues represent a source of uncertainty. The mere fact of not being able to define clauses of a contract or paying for expert consultancy can prevent a contract from being designed. An intermediate organization, buying and offering small parcels in sufficient quantities may take away an important barrier for the individual land user to sell and buy. Secondly, the land bank can facilitate procedures and have a "single front desk" function towards actors on the land market. Doing business with the land bank, means that many procedural steps are taken care of.

In Former East Germany, the Federal Land Utilization and Administration Association (BVVG) has been crucial for the establishment of a transparent and functioning land market. BVVG introduced lease and sales prices, evaluation methods, model contracts and tender-based sales procedures for the emerging land market.

3.3.2 Options for Armenia

Elements of above described approaches may be applied in Armenia. In this context, the role and approach of municipalities and community land management need to be reviewed in their effectiveness of using the state land to reduce fragmentation. Further analysis needs to focus on the following issues and need to be investigated and explored:

- the use of public land, particularly in regions with more arable land, and its contribution in strengthening the farm structure. This counts for both the sale of land and the lease e.g. provide longer-term lease contracts that provide more legal protection and tenure security (refer to section 3.4.2)
- removing of existing barriers to sell directly land and to exchange state land and private land (refer to section 2.6) by amending the legal framework and/or implementation instructions,
- broadening the tasks towards the mediation of private leases, the municipal organization providing land fund-like services and guarantees (e.g. the land bank of Galicia in Spain) and targeting specific target groups needs to be investigate (e.g. women, young farmers),
- broadening tasks to other services (e.g. publishing reference prices, model contracts, single desk function), and
- tuning activities to future land consolidation activities (refer to 3.2.2)

In relation to broadening and professionalizing the organization and approaches, the current institutional set up should be reviewed. At present, tasks to manage community land are carried out close to the target group which may be an advantage. However, carrying out a broadened task package requires a critical organizational mass to work professionally, transparently and effectively. Support and guidance from the *marz* level may improve the organizational capacity, to establish uniform rules and regulations for price setting, selling / buying, building up reserves, using reserves for new investments, etc. While exploring different options a different financing model needs attention as well.

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

The Galician Land Bank (BTG)²⁸ responds to specific local characteristics and it targets particular population groups (e.g. female entrepreneurs and new entrants). In an overall package to stimulate and guide the land market it:

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

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

3.4 Land lease market development

3.4.1 Regulation of agricultural land lease to strengthen farms

The land-lease market is limited, mainly informal and weakly regulated. Better regulating and stimulating the lease market can be an alternative for low land mobility in the sales market and contribute to more equal access to land (e.g. landless people, small farmers, new entrants). Stronger regulations can both benefit owners (longer-term guarantee of revenues, maintaining land which is not worked anymore but is important from emotional point of view, higher lease prices and better security in case of conflicts) and leaseholders (a more stable part of the business, possibility to enlarge the farm without major investments, additional basis for accessing agriculture subsidies and loans and better protection in case of conflicts). The importance of leasing varies across Europe. Studies within the EU report a broad variety ranging from 17% in Ireland, 50% in Sweden²⁹ and more than 60%

²⁸ Refer to <https://sitegal.xunta.gal/sitegal/>

²⁹ Study on the Functioning of Land Markets in the EU Member States under the Influence of Measures Applied under the Common Agricultural Policy, Swinnen, J, Ciaian, P , and d'Artis K. (2008) CEPS

of shared rented land in the total utilized agricultural area in the case of Hungary, Bulgaria and Czech Republic³⁰. European countries differ in the way and the level of regulation. It should be stressed that most countries that regulate lease also have options for short-term leasing or renting of land (mainly practiced in Armenia at the moment).

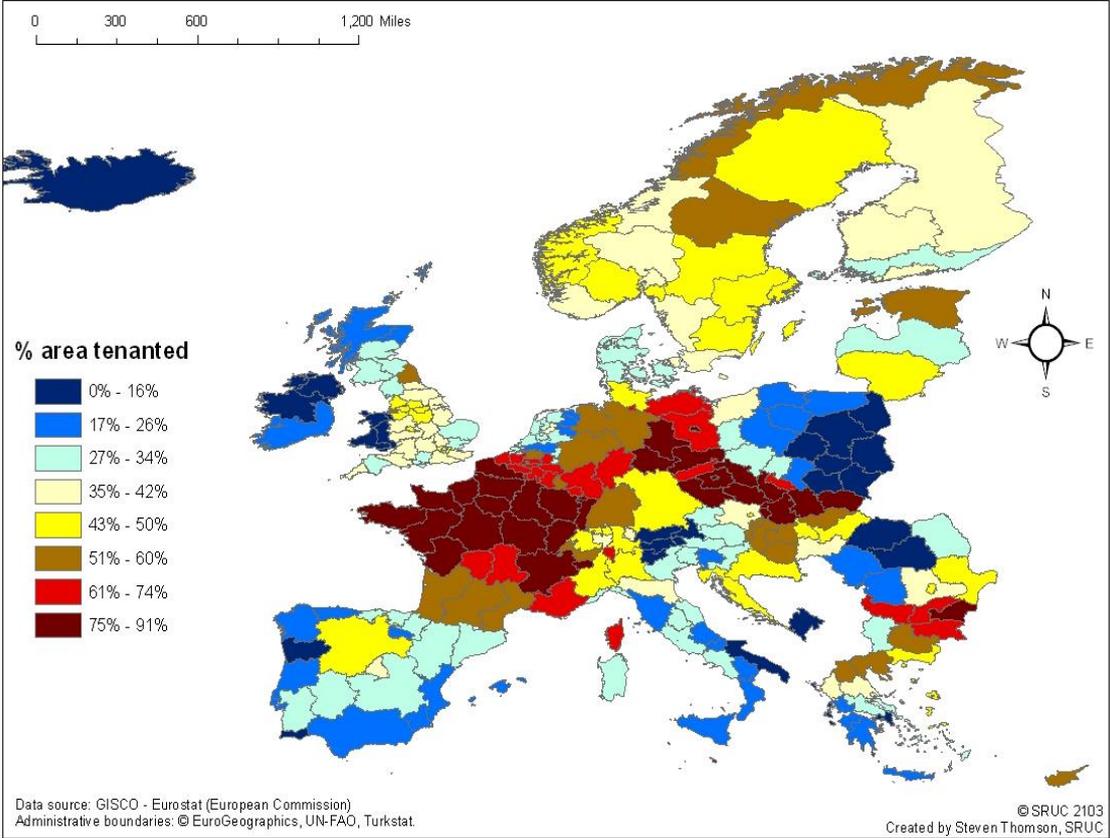


Figure 6. Land tenure in Europe³¹

3.4.2 Options for Armenia

It is proposed to study in more depth the present legislation and to assess drivers, barriers and – more in general – the level of support for stronger regulation and facilitation of agricultural land lease. The present requirements for lease registration (and particularly) its termination need to be reviewed. In the survey the following options are to be considered for both the lease of public land to private parties and the private to private lease;

- the tenancy duration: some countries have set minimum terms, for example 5, 6 or 9 years,
- the price range: many countries have minimum and/or maximum rental prices set by Government agencies (Belgium, France, Greece and the Netherlands),
- right of renewal/inheritance: in several countries (e.g. France) the renewal (e.g. automatic renewal) and inheritance of rental contracts, are regulated,
- mechanisms to resolve contract disputes: many countries have land specific bodies either at a local and/or national level, for example, Denmark, France and the Netherlands,
- pre-emption rights: many countries grant first refusal to private and public tenants through a pre-emptive right to buy land if offered for sale (e.g. Belgium, France and Sweden). Some countries extend pre-emptive rights to neighbouring farms, as in France, Hungary and Italy. In some cases, pre-emptive rights are accompanied by price controls (e.g. France, Hungary) but in other cases there are no price controls and holders of pre-emptive rights may simply be outbid (e.g. Denmark)³²,

³⁰ Ciaian, P., Kancs, A., Swinnen, J, Van Herck, C. and Vranken L. (2012). Key Issues and Developments in Farmland Rental Markets in EU Member States and Candidate Countries. Working Paper N° 13 – FP7-KBBE-Comparative Analysis of Factor Markets for Agriculture across Member States.

³¹ Scottish agricultural tenure evidence review, Scottish Government Social Research (2014)

³² Scottish agricultural tenure evidence review, Scottish Government Social Research (2014)

- lease rights in land consolidation: some countries (e.g. Netherlands) provide rights to lease holders in land consolidation (e.g. voting on the plan, full rights in the re-allotment process), and
- land lease registration: some countries require registration by notaries, special chambers or farmers' organizations (Italy) to be able to benefit from subsidies

Besides regulating the lease market, promotion and/or facilitation of land-lease are other ways to stimulate increasing of farm size by leasing.

3.5 Pre-emption rights

3.5.1 Functions of pre-emption rights

Establishment of pre-emption rights is one of the options to guide the land market in rural areas. A pre-emption right or 'right of first refusal' prevents or restricts the landowner from entering into a land transaction with parties other than those to whom the right is granted until those people / organizations have declined the offer. The pre-emption right can be granted to either private persons such as farmers from the same area or to organizations that have the role to guide developments that benefit the interest of the broader society. In the Netherlands for example, pre-emption rights can be granted to municipalities, provinces or the state to anticipate on urban developments in specific areas. In France the right of pre-emption is used on a broader scale in rural areas. Farmers (under certain conditions) and the *Société d'Aménagement Foncier et Etablissement Rural* (SAFER - Agricultural Commission) both have a right of pre-emption over land or property to guide developments in rural areas.

Box 6 Examples of pre-emption rights related to rural land in Europe³³

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

The main aim is protection of rights of co-owners and tenants related to continuity of agricultural purpose (e.g. Bulgaria, Albania, Georgia). Usually this form is generally applied.

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

As in 1. The main aim is protection of rights and continuity / improvement of agricultural production. The addition of neighbours usually is related to intentions to improve the local land structure, for example when farms are small-scale and fragmented. This is practised in FYR of Macedonia, Serbia, Estonia and Lithuania, and is generally applied.

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

The objective of this form is to direct the local land market towards a better structure, to keep land in the hands of farmers and to avoid speculation. In France for example, this form also has the additional objective of regulating prices. The form is generally applied.

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

In this form, pre-emption rights are used to build up a reserve in a land consolidation area. By using the right, land can be purchased to be allocated to public infrastructure (access roads, drainage / irrigation canals) and to smooth the process of swapping land. This form is only used in designated land consolidation areas, for example in Portugal, Spain (Galicia) and Lithuania.

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

Pre-emptive rights are used to realise public functions like nature conservation, forestry, preservation of cultural heritage or infrastructure development. Usually this form is used in particular designated areas that are changing the function from agriculture to another function. It is practiced in Denmark, Romania and the Netherlands.

3.5.2 Options for Armenia

³³ Comparative quick scan study - Pre-emption rights related to rural land, Holst, F. van (2011)

Application of pre-emption rights, in general, is a sensitive issue since it touches the individual interest of the land owner and balances it with the interest third parties or the society as a whole. A general principle therefore is to limit the use of pre-emptive rights to prevent restrictions and administrative burden as much as possible. In Armenia, application could be considered in specific situations that benefit those directly involved;

- granting tenants a pre-emptive right (first refusal) to buy the land they are leasing (in combination with better regulation of lease rights described under 3.4.2),
- pre-emptive rights to neighbouring farms, and
- use of pre-emptive rights in combination with retirement schemes and/or in-land consolidation areas

3.6 Land taxation and registration costs

3.6.1 Forms of taxation and registration

The main types of land taxes relevant for in-depth analysis are land sales tax (capital profit tax), purchase (registration) tax and usage (real estate) tax. Usually, land sale taxes are mainly devised to discourage land price inflation by absorbing land sale profits. In contrast, purchase (registration) tax and usage (real estate) tax affect the behaviour of the buyer of agricultural land. Low tax levels may facilitate more mobility but could have side effects of speculation on land by non-agricultural investors. High tax levels could lower mobility and lead to (partial) payments in 'black money'. Inheritance legislation and related tax systems may also have an impact on the land market and land fragmentation. A wide variation on tax levels and tax exemptions is present in Europe.³⁴

The level of registration costs and the procedures needed to register can seriously hamper land markets, especially in fragmented situations. Other formal or informal mechanisms dealing with land rights will come into place when transactions are too expensive.

3.6.2 Options in Armenia

Land tax on agricultural land is set at the rate of 15% of the estimated net cadastral value, which is set by the Government. The Government may grant special exemptions from payment of land taxes during periods of unusually harsh agricultural conditions.³⁵

Analysis³⁶ has shown that both costs and procedures to register land do not provide major barriers for normal land market functioning. Anecdotal information indicates that there is still space for unofficial payments in registration, due to discrepancies in the cadastral data. High costs of registration in relation to inheritance cases may prevent up to date registration.

It is proposed to study more in-depth the way land taxation interacts with land market functioning;

- Comparative review of current land related tax measures in Armenia in relation with other countries and their possible impact on reducing fragmentation, and
- Considering specific exemptions related to the instruments described above e.g. exemption of registration costs and property transfer tax in land consolidation or land swapping, exemption of property transfer tax while using pre-emptive rights for co-owners, leaseholders, neighbours, thresholds or specific exemptions to avoid fragmentation through inheritance etc.

The challenge is to find the right balance preferring positive triggers to stimulate action rather than negative triggers of restriction or penalizing (which are usually difficult to enforce/maintain). The impact of tax measures is mainly supportive to other measures and should not be overestimated.

3.7 Framework for intervention

³⁴ Study on the Functioning of Land Markets in the EU Member States under the Influence of Measures Applied under the Common Agricultural Policy, Swinnen, J, Ciaian, P, and d'Artis K. (2008) CEPS

³⁵ Armenia Pocket Tax Book (2011) PWC

³⁶ Modernisation and commercialisation of Armenian agriculture, Technical Note 6: Strengthening Agricultural land Markets. D. Egiashvili (2016)

The selected policy options should be developed as a comprehensive framework of mutually supportive instruments and measures that;

- **Stimulate** the land market to function as smooth as possible, creating a proper institutional set up with clarity of rights, procedures and low transaction costs. Measures are typically carried out country wide.
- **Guide** the land market in a sense that publicly supported goals for land use are reached in an “organic” and transparent way. In addition to general instruments, these measures are strongly related to particular areas (e.g. irrigated or other high potential cultivated areas) or target groups (e.g. a certain farm size, female or young entrepreneurs) guiding the market in a certain direction.
- **Complement** the market by other measures (e.g. using state land effectively),

For Armenia this framework may look as follows:

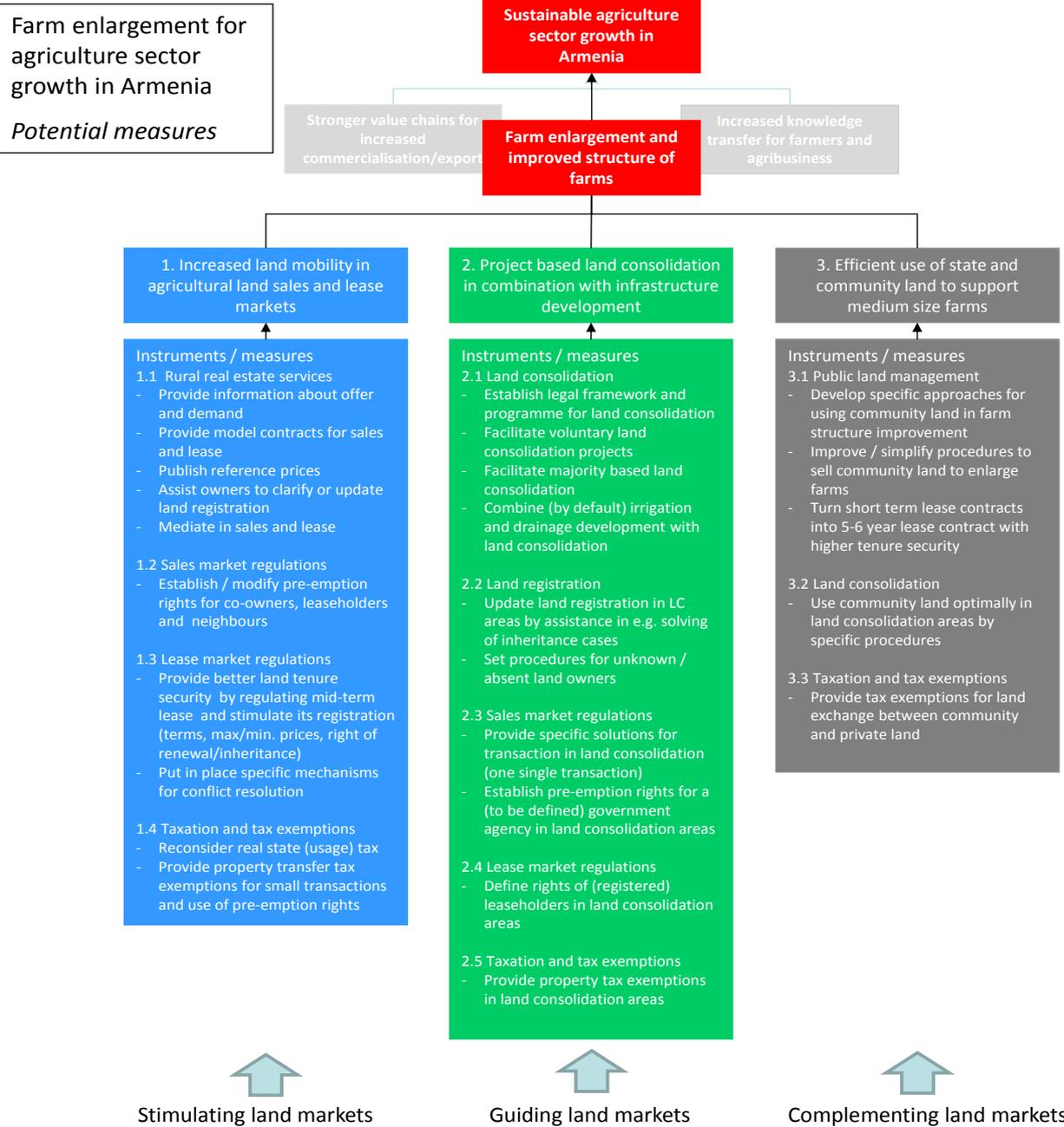


Figure 7. Framework for intervention

IV Setting up the Policy framework

4.1 Awareness raising and promotion

Land issues are sensitive in general but in particular in Central and Eastern European countries. Farmers need to have a clear view what land consolidation is and how it is implemented in the different forms. The most important principle that *'participants are at least as well off after the schemes compared with before'* should be one of the key-messages³⁷. Farmers need to be convinced that their land will not be taken away from them and that they themselves are the most important actors while making the plan. Experiences in many countries show that initial skepticism to get on board of land consolidation is usually replaced by enthusiasm and pro-active participation when the process is properly facilitated. Introducing a policy package on land market development therefore needs to be accompanied by substantial public and political awareness raising in all phases of introduction (analysis, design, establishment and operation). A wide range of modalities (e.g. peer to peer events, study visits, TV, social media) tailored to different target groups (e.g. farmers, politicians, vulnerable groups) needs to be used. Practical information on land consolidation should illustrate that regardless of the approach (voluntary or majority based), all participants benefit from the measures.

4.2 Phases of introduction

The first step is to develop a 'strategy for farm enlargement and land consolidation' incorporating the three strategic lines described, as described in Section 3.7 (stimulating, guiding and complementing the land market) as components for further development. For each of these, deeper analysis needs to be done of current obstacles and opportunities. Based on the strategy a legal package needs to be made. This includes changes of existing articles in the Land Code that regulate sales and lease and adding a section on land consolidation regulating 1) voluntary land consolidation and 2) majority based land consolidation. This work may be done in 2018-2019. For each of the components described below a testing/piloting phase could be implemented.

4.2.1 Increased land mobility in agricultural land sales and lease markets

Based on the 'Strategy' a pilot programme on rural real estate services and promoting land lease is proposed in one of the more productive regions involving a contiguous area of 8-10 municipalities. The programme could be carried out in 2019-2020. Based on evaluation, decisions are to be made on mainstreaming the approach including further amendments of the legal framework if needed.

4.2.2 Project based land consolidation in combination with infrastructure development

Based on the amended Land Code and Strategy three land consolidation pilots are proposed (one voluntary and two majority based). It is required to combine these pilots with irrigation rehabilitation in areas selected under the newly started Irrigation System Enhancement Project. Efforts to select the three pilots need to be focused on the three regions where most of the irrigation work will be done; Ararat, Armavir and Kotayk regions. The pilot areas could be selected based on, among others, the present arable land use, the rate of fragmentation, the relation/dependency on irrigation development, the presence of community land, the rate of unknown/unclear ownership, the physical condition such as soil quality, slope etc. and last but not least community interest and involvement.

For effective use of time, the selection of pilot areas and awareness raising can already start while preparing the strategy and legal amendments of the Land Code in mid-2018. In that case, pilots can be finalized in 2020.

Based on experiences in the pilots, necessary legal amendments could be made and a National Land Consolidation Programme prepared for the period from 2020 onwards.

4.2.3 Efficient use of state and community land to support medium size farms

The first step is to get a clear picture of existing practices. A country wide survey is proposed, added with deeper interviews in some selected regions and communities. Based on the outcome, recommendations can be made by mid-2018. These recommendations need to be both general (horizontally applied) and specific (for

³⁷ Section 13.1 of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (CFS / FAO 2012)

future land consolidation areas). Follow up steps (e.g. organizational restructuring, legal changes, training or guidance) depend on the outcome of the survey and the nature of the necessary amendments.

4.3 Capacity building and donor support

A tentative schedule for capacity building is:

Activities and capacity building	Appr. Support	2018	2019	2020	2021	2022	2023
Land market development strategy and primary legislation	USD 400.000	█	█	█			
Pilot phase: rural real estate services, community land banking and land leasing	USD 200.000		█	█	█		
Mainstreaming: rural real estate services, community land banking and land leasing	USD 300.000				█	█	█
Pilot phase: land consolidation, secondary legislation and programming	USD 500.000		█	█	█		
Mainstreaming: land consolidation including capacity development	USD 2.500.000				█	█	█

The Ministry of Agriculture should take the lead with strong involvement from the Land Use and Amelioration Department and Legal Department. Involvement and good cooperation with the State Agency “Water Sector Project Implementation Unit” and the State Committee of the Real Estate Cadastre are of fundamental importance to implement the Land Market Development and Land Consolidation package.

Mainstreaming the set of measures towards a smooth functioning agricultural land market programme requires the following institutional capacity:

- 1) dedicated and skilled staff in the public sector;
- 2) qualified and certified actors in the private sector;
- 3) legal mechanisms and capacity to deal effectively with legal disputes, unclear land ownership, appeal procedures and registration of new land ownership;
- 4) effective procedures to programme, prioritize and select projects, to prepare and assess projects, to monitor and evaluate projects;
- 5) budgeting procedures and norms to elaborate and evaluate process costs and investment costs; and
- 6) mechanisms to link and cooperate effectively between sectors and institutes (i.e. irrigation development, spatial planning etc.).

To achieve this, substantial technical assistance (both international and national) is needed in the period 2018-2023 in the following fields of expertise:

- Land administration / land consolidation
- Land legislation
- Land taxation
- Land banking / valuation
- Communication / awareness raising
- Gender mainstreaming
- Rural Development / rural infrastructure
- Geographical information systems
- Project management / assistance
- Ad hoc International Consultants (e.g. EIA Consultant, Spatial Data Systems, Cost-Benefit Analysis)

Involvement of FAO REU is recommended in view of FAO’s rich experience with land tenure and land consolidation in the Central and Eastern European region.

V Summary of recommendations

As with many countries in Eastern Europe and Central Asia, Armenia faces the challenge of small farm size and high land fragmentation originating from land privatization in the 1990s. Average farm size and plot sizes have changed little in the last 20 years, inhibiting farm investment and modernization and contributing to the abandonment of agricultural land. Most arable land is privately owned (73%), with a further 24% of community owned land managed by local government authorities (mainly leased to farmers). Although the sale and lease of agricultural land is increasing, farm enlargement and reduced land fragmentation will not be resolved through normal land market activity alone. A range of new laws, policies and programs is needed to strengthen land market activity and reduce land fragmentation.

International experience suggests that the following measures have potential for Armenia:

- **Land Consolidation Programs:** Differing approaches to land consolidation could be used to augment current land exchange between private partners and the government. These include comprehensive voluntary land consolidation (as in Lithuania) and majority based land consolidation (as in Serbia and FYR of Macedonia). Majority based land consolidation is most appropriate in areas with (i) little heterogeneity in production capacity and (ii) planned improvement of infrastructure such as irrigation. Wherever possible, land consolidation should be combined with irrigation restructuring.
- **Review of the Land Lease Framework:** A better regulated, more active lease market is an effective means to improve access to land when sales activity is low, particularly for people with limited access to land (landless people, small farmers). Improved security of tenure can be achieved through better regulation of: tenancy duration (minimum term), price range, automatic right of renewal, contract dispute resolution, succession rights and right of pre-emption in case the land owner sells. Incentives such as improved access to subsidies and inclusion of lease rights in land consolidation for registered lease holders also merit consideration.
- **Improved Management of Community Land Funds:** As in other countries in the region, the state and community land that remained after privatisation does not contribute adequately to the sustainable development of farms. The role of current Land Fund activities, particularly in *marzes* with more arable land, should be reviewed to assess their contribution to strengthening farm structure. One option would be to orient *marz* Land Fund management towards the mediation of private leases with the Land Fund providing services and guarantees (e.g. the land bank of Galicia in Spain) and targeting specific target groups (e.g. women, young farmers).
- **Review of Pre-emptive Rights (rights of first refusal):** Many countries grant tenants a pre-emptive right (first refusal) to buy the land they are leasing. Pre-emptive rights can also be granted to relatives and/or neighbouring farms, as in France, Hungary, FYR Macedonia, Serbia, Estonia and Lithuania. In Portugal, Spain and Lithuania pre-emptive rights are also used in combination with retirement schemes and in land consolidation areas.
- **Review of Land Taxation:** The level of land transaction taxes (selling/purchasing) and land use taxes can influence the level of activity by current and potential land-owners on land markets. Review could begin by considering the potential impact of altering the level of land taxes on farm structure and land market activity. Further options for reform include specific exemptions related to the instruments described above (e.g. land consolidation and use of pre-emptive rights for co-owners, leaseholders, neighbours).
- **The Integration of Equity and Inclusiveness in the Policy and Program Instruments described above:** Measures to improve access to land and secure better tenure rights should be oriented to the interests of women and young entrepreneurs.

To be effective, implementation of these policies and programs would need to be supported by extensive awareness raising, capacity development of both the public and private sectors and technical assistance.

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Annex 2

Meetings / discussions (19-22 June 2017)

Ignati Araqelyan	Minister of Agriculture
Ashot Harutyunyan	Dpt. Minister of Agriculture
Gegham Gerorgyan	Ministry of Agriculture, Director of Agricultural Development Foundation
Davit Babayan	Ministry of Agriculture, Head of the (new) Extension Agency
Gurgen Arakyan	Ministry of Agriculture, Head of the Legal Department
Artur Baghdasaryan	Ministry of Agriculture, Head of the Land Use and Amelioration Department
Hrachya Tspetyan	Ministry of Agriculture, Head of the Agriculture Development Programming Department
Gayana Nasoyan	FAO Assistant Representative
Vahan Amirkhanyan	Project Director of Project 'ENPARD technical assistance to the Ministry of Agriculture of the Republic of Armenia'
Levon Alepanyan	Armavir Marz Support Center, Executive Director
Anna Kostanyan	Lenughi Community (Armavir), Community Service Provider
Simon Asatyan	Lenughi Community (Armavir)
Yeprem Arakelyan	Lenughi Community (Armavir)
Hrachya Hoihannisyan	Aygevan Community (Armavir), Mayor
Ara Vardan	Lenughi Community (Armavir)
Manvel	Lenughi Community (Armavir), Head of Staff
Alina Harutyanyan	Nor Erznka Community (Kotayk), Mayor
Artak Khalatyan	Kotayk Marz Support Center, Executive Director
Arsen Avagyan	National Statistical Service, Chief of Agriculture Statistics Division
Karen Kacharyan	State Agency "Water Sector Project Implementation Unit" of the State Committee
Artashes Syelanyan	State Agency "Water Sector Project Implementation Unit" of the State Committee
Tigran Ishkhanyan	State Agency "Water Sector Project Implementation Unit" of the State Committee
Narek Grigoryan	State Committee of the Real Estate Cadastre, Dpt. Chairman