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Consolidation of Agricultural Land, A Case from Albania

Sherif Lushaj[a], Luiza Strati[b], Vezir Muharremaj[c]

Summary

Since 1990, after privatization of farmland, fragmentation – division of land in small farmable parcels dispersed on noncontiguous areas – continues to be one of the major factors that hamper sustainable development of agriculture in Albania.

The 'Consolidation of Agricultural Land as an Instrument for Sustainable Development of Agriculture' Project was developed in the Municipality of Fier during June 2017 – June 2018. This project is a success story for the development of land consolidation policies in Albania. It was the result of an inclusive process with the local community and other key stakeholders, as well as of an extensive national discourse on the subject matter. The project resulted in the design of a program for land consolidation, prepared by the municipality of Fier in collaboration with regional agencies and interest groups and with the technical assistance of the authors of this article. The program was extensively discussed at the local level with key stakeholders, as well as in a national conference. Then, it was approved by the Local Council and presented in the respective parliamentary commission, aiming at influencing national policy making on land consolidation. The project is already under implementation.

This article provides a summary of the process, analysis, and proposals of the project and of the land consolidation programme prepared for Fier. In this process, problems that require national-scale solution were identified, and the Project lobbied decision-making and policymaking institutions for application and replication in other municipalities across the country.

Keywords: Agriculture, Land Consolidation, Fier, Case Study

Contact

[a]sherif_lushaj@universitetipolis.edu.al (Corresponding author)
[b]luiza.strati@yahoo.com
[c]vezir_muharremaj@universitetipolis.edu.al

POLIS University, Tiranë, Albania, www.universitetipolis.edu.al

Introduction

Albania's change of political system in the early 1990s was accompanied by a number of important legal initiatives on privatization. Agriculture was the most affected sector, which, in the preceding period, was centralized and acknowledged no private ownership title on land at all. Transition to private ownership and subdivision of agricultural lands after 1990 were associated with significant land fragmentation, considerably affecting the agricultural productivity and the contribution of this sector to Albania's economy. Every rural household was entitled to land, which was dispersed on several noncontiguous locations (in plains and hills, in cropland cultivated with fruit trees, or vineyards, close or far from farmhouses, above and under water, and with diverse productivity potentials) (Lushaj, 2003). During 1991-1992, the land was fragmented into 1.8 million parcels, in which every farm household gained ownership of about 1.5 hectare of land dispersed on an average of 3-5 parcels of uneven shape and size, and most commonly located in disjointed sites (Müller & Munroe, 2008). However, the size of the parcel varied within and between districts, with a minimum size of 0.23 ha and maximal number of parcels within a property varying between 10-11 (Lushaj & Papa, 1998). Prior to privatization the size of the parcels was between 12-14 ha in lowland areas, and the parcels were cultivated with the same culture and applied the same technology (ibid). These major size and property changes affected significantly the efficiency of production of the agricultural land.

Agriculture remains one of the most important sectors to the country's economy with an average contribution of 18-20 % of the Gross Domestic Product during the 20 last years. Several initiatives have been undertaken over the last few years to address the sector's challenge of land fragmentation, but the system is still deficient. Strategy-wise, two major documents on land consolidation are: 'Inter-Sectorial Strategy on Rural Development and Agriculture 2014-2020'[1] and 'The National Strategy on Land Consolidation'[2]. The strategy on consolidation however is mostly a formal document, which is not comprehensive in regard to its respective subject matter, and does not include the steps and the procedures to implement land consolidation, therefore needing revision.

On the other hand, a Law on Land Consolidation has not been developed yet, leaving unaddressed not only the fragmentation of land, but also the implementation of programs that encourage private initiatives in agriculture, as well as the implementation of the land consolidation strategy as a whole. The strategy foresees a number of implementation steps and its objectives do not go hand in hand with those of the crosscutting strategy on rural development. The land consolidation strategy is mostly a normative document, rather than a practical and comprehensive guide for actions on consolidation. One of the main instruments that the strategy builds on is the reallocation of ownership, while it fails to consider other cost-effective effective approaches. One other shortcoming of the strategy is the insinuated decreasing role of the local self-governments in the development and implementation of land consolidation plans.

In the meantime, the 'Consolidation of Agricultural Land as an Instrument for Sustainable Development of Agriculture' Project, applied in the Municipality of Fier, introduces a new approach for agricultural land consolidation. The Project seeks to identify "the most feasible options of land consolidation to be applied in the context of the Municipality of Fier and its administrative units , to the extent allowed by the relevant legal framework, with aim of eliminating economic, social and environmental consequences of fragmentation, increasing agricultural production and revenues, regulating the territory, conserving the

landscape and protecting the environment" Centre for the Study of Natural Resources & Fier Municipality, 2018, p. 4-6. This project intends to gradually ensure that (household) farms become economically sustainable and competitive. It puts forward new proposals on land consolidation, such as:

- the completion of the legal framework and the review of the national strategy on land consolidation;
- the development of institutional structures for land consolidation;
- implementation of new instruments of land consolidation and preparation of consolidation schemes adapted to the local conditions;
- application of different forms of cooperation that can be used to stop further land fragmentation and that can be replicated nationwide

In view of the above, this article seeks to provide a description of the project and the lessons learned from it as a model and good practice that can be further used and replicated in other municipalities across the country. At first, the article focuses in the theoretical and legal framework on agricultural land consolidation, and then elaborates on the Project's experience. In the end, it proposes several policy recommendations that are applicable to the local and national tiers of governance in Albania.

Consolidation of Farmland

The world literature as Bachman and Osterberg (2004), Dijk (2004), and Torhonen (2004) acknowledge, suggests that land fragmentation is a disadvantage not only for the production level, but also for the economic indicators, for the application of agricultural technologies, and for the protection of land and environment. Land consolidation represents an essential requisite for further interventions in the rural space, and complex land consolidation processes provide an excellent opportunity with substantial synergy effects to integrate land tenure services into the broader framework of rural and regional development (Riddell & Rembold 2002, p.9). When land is fragmented, parcels are typically of uneven shapes and inadequate sizes to allow for the use and implementation of technologies, and for the maintenance of agricultural support infrastructure. As a result, considerable agricultural land remains unused every year. Van Dijk (2004, p.9) reinforces this by stating that "Technically speaking, the overall productivity of that limited amount of land is reduced by its fragmentation, because the borders between the parcels (hedges, ditches) are space-consuming. Also, mechanization is not likely to be applied by small holders and other diseconomies can be expected".

Small parcels of land cannot be managed through scientific practices and, in most cases, they are left uncultivated, because the farmer loses time on transport and other work processes that result in increased expenses. According to previous experimental research, such as diesel consumption while working parcels of size 400 m^2, 1,000 m^2 and 10,000 m^2, it is estimated that fuel consumption for cultivation in small parcels of up to 400-500 m^2 is 30-40% higher than for the same size of area within larger parcels (Lushaj, 2003, p. 61). In addition, land fragmentation leads to decreased production capacities, constraints in the application of agricultural technologies (mechanization, drainage, irrigation, extension service, use of agricultural inputs), and to decreased agricultural output (ibid., pp. 62-65).

To this end, land consolidation is an instrument for sustainable agriculture that guarantees increased size of farmland, merge of parcels into one single land plot, readjustment of uneven parcels, creation of agricultural landscapes, improvement of conditions of rural communities, and application of forms of cooperation that

improve the entire chain of production and marketing. According to Vitikainen (2004, p. 19): "the demand for land consolidation arises from a similar source in all countries: the need for readjusting unfavourable land division and promoting the appropriate use of there a property without changing the status of ownership. In the late 20th century, land consolidation has formed into a rural development instrument with multi-purpose objectives, which can additionally be used for improving the infrastructure, enhancing landscape and nature protection and implementing various recreation area projects".

The land consolidation processes, though needed, encounters several challenges, because it should be: voluntary, democratic, inclusive, negotiable, and a process where farmers and local stakeholders are at its very core. Furthermore, land consolidation is time-consuming and costly. Experiences show that land consolidation processes are not always successful and that they are prone to failure when the local community and stakeholders are not involved in the process. To this end, authorities will have to convince the rural population and the farmers of the advantages of land consolidation, such as rural development and improved quality of life, and also describe the process to them (Kovac and Ossko, 2004).

Additionally, Kovacs & Ossko (2004) reinforce the idea of using land consolidation stating that the application of this instrument should be seen in the framework of an overall agricultural and rural development policy, and as an essential tool within a range of instruments to achieve sustainable rural development. Meanwhile, Torhonen (2004, p. 51), says that "Land consolidation can be a very effective instrument in efforts aimed at making agriculture in the region [South-East Europe] more competitive and at promoting rural development".

The Process of Project Implementation

The 'Consolidation of Agricultural Land as an Instrument for Sustainable Development of Agriculture' Project was developed by the Centre of Study, Use and Management of Natural Resources, partnering with Albanian Agribusiness Council, National Federation of Communal Forest and Pastures of Albania, and in cooperation with Fier Municipality. The project was financially supported by the European Union through its regional project on 'Sustainable Agriculture for Sustainable Balkans'. The project's duration was one year and its final results include:

- The analysis of the level of fragmentation of agricultural land and its economic, social and environmental impacts in the municipality of Fier and for each of the administrative units;
- The preparation of the Agricultural Land Consolidation program for the municipality of Fier together with the various stakeholders such as regional actors, local and national experts, including a presentation in the parliamentary commission for production, trade and environment as well as a national conference;
- Unification of all stakeholders and approval in the Municipal Council of Fier;
- Definition of local and national challenges, such as for example the process of land registration, legal gaps, review of the national consolidation strategy.

The land consolidation program design was based on an analysis of the existing territorial conditions as well as on the experiences acquired in the Central and South-East European countries. The analysis helped in understanding the level of farmland fragmentation and its economic, social, and environmental consequences in the Municipality of Fier. The main documentation employed to design the

land consolidation program included the register of land parcels that contained core data on land ownership and indicators; the register of parcel development, cadastral maps of scale 1:5,000 and 1:2,500, soil fertility, and land fragmentation maps as well as their grouping by type, adaptability, and value. Other documents considered in the program design included farmers' agreements, forms of joint actions among them, and the proposed schemes. About 40 indicators collected from administrative units were investigated for the analysis. Some of these indicators include: production; economy and labour; soil characteristics; support infrastructure and application of technologies; farm size; allocation of parcels and land use; irrigation capability of land; level of mechanization of work processes; and, rate of property ownership registration.

The local stakeholders, regional agencies, and experts participated intensively in designing the land consolidation program for Fier municipality. The participatory process enabled them to contribute to the selection of scenarios on application of land consolidation forms, address deficiencies of the applicable legal framework, and improve the content of the national land consolidation strategy, including lobbying for issues that required national-scale solutions. Fifteen separate meetings with stakeholders were held, in which about 480 individuals took part, and more than 250 discussions and 180 proposals and suggestions were generated and solicited.

At the conclusion of this process, a land consolidation program was designed consisting of the application of forms and schemes of property merging through either direct consolidation or readjustment, territory management, increase of agricultural productivity, improvement of landscape, and protection of nature. The program is currently under implementation, through a slow but steady process. Other issues elaborated during the design of the program include the identification of problems that require national solution, selection of options of land consolidation for sustainable development of agriculture in Albania, legislation improvements, and ways to address problems to decision-making and policymaking institutions at the national level.

Main Findings of Project Analysis

Until 1990, Fier as one of the 26 districts of the country possessed some 71,200 hectares of arable land, administered in 25 state-owned cooperatives and farms. This district managed 10.2% of the country's agricultural land. During 1992-2014, the Municipality of Fier administered the city of Fier, whereas its rural areas were organized in communes. After the adoption of the administrative-territorial reform in 2015, the municipality incorporated 10 administrative units, with a population of 122,475 inhabitants and encompassing a total area size of eight times larger than prior to the reform (Municipality of Fier, 2016, p. 14).

The process of farmland privatization in this municipality followed similar principles as those employed across the country. The land was fragmented at a significant rate, while property of farm households was dispersed into small noncontiguous parcels. In the Fier Municipality, the average number of parcels per farmhouse property varies 4-5.3, while the maximal number goes up to 10-11 plots. The average parcel size is 0.47 ha. These tiny land plots can barely be toiled, cultivated, and irrigated (Lushaj et al., 2018, pp. 20-21).

Size of Farms

An analysis conducted in the Municipality of Fier shows that land fragmentation is at a high level and with significant differences among administrative units. The typology of farms at national level and in the Municipality of Fier is characterized by the allocation of farmable land to the ownership of 26,810 small farm households at an average size of 1.54 hectare per household. The average farmland size varies from 0.47

to 2 hectares among administrative units. At municipality level, farmlands of up to 1 ha take up about 38% of the total number of land plots; nearly 49.5% is dominated by 1-2 hectare farms; and farmlands larger than 2 hectares occupy approximately 12.5% of land plots based in data from the archives of the Agriculture Directory of the Municipality of Fier.

The majority of farm households produce for own consumption. Some larger farms are able to sell their crops, such as vegetables, olive, grape, livestock products, etc., which take up the main share under the regionalization of crops. Mixed (agriculture and livestock) farms constitute the majority of farms, and contribute to deepening further the consequences of agricultural land fragmentation, because of cultivating a large variety of agricultural crops. Specialized farms, such as orchards, vineyard, and livestock, are limited in number, amounting to no more than 660 farm holdings. This indicates that the regionalization of the agricultural and livestock production needs to be enhanced to boost production and alleviate the effects of land fragmentation within farms. Increase of farm size and merging of properties create conditions for the application of agricultural technologies, mechanization of work processes and reduced costs, enhancement of experts' technical assistance, regionalization of production, specialization of farms, and intensification of production for market and export.

Figure 1. Fragmentation of land in the Administrative Unit of Frakull

Source: Authors (2017)

Table 1. Farm size in the Municipality of Fier

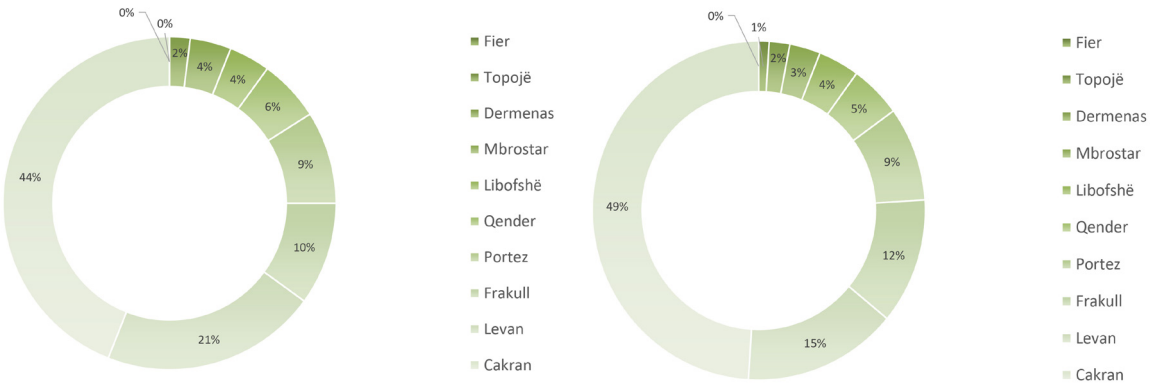
No.	Administrative unit	No. of farms	Average size (ha)	0.5 ha	0.5-1 ha	1-1.5 ha	1.5-2 ha	2-2.5 ha	>2.5 ha
1	Frakull	1,867	1.48	120	880	670	100	70	27
2	Levan	3,465	1.50	126	448	1,324	1,406	117	44
3	Qender	2,380	1.09	150	1,025	943	215	35	12
4	Dernenas	3,300	1.70	50	550	1,000	1,300	300	100
5	Topoje	2,077	1.71	103	203	405	632	410	324
6	Mbrostar	2,650	1.25	115	279	1,193	449	331	283
7	Cakran	3,207	1.39	120	487	1,700	500	300	100
8	Libofshe	2,884	2	491	420	457	568	457	491
9	Portez	2,400	0.88	600	1,500	200	100	-	-
10	Fier	2,580	0.47	2,205	300	60	12	3	-
	Total	**26,810**	**1.54**	**4,082**	**6,092**	**7,952**	**5,282**	**2,022**	**1,380**
	%	100		15.22	22.72	29.66	19.70	7.55	5.15

Source: Archives of Fier Municipality, authors' own calculations

Structure

Following land privatization and the high rate of fragmentation and given the new conditions of market economy, as well as the movement of the population, the structure of the agricultural crops in the Municipality of Fier underwent radical changes. Cotton, sunflower, and tobacco were no more cultivated, with cereals, vegetables, potatoes, beans, forage, fruit trees, vineyards, olives, and livestock products remaining the main crops and produce. Forage crops cultivation increased, so did the size of uncultivated land, which reached about 20% of farmable land. For instance, small parcels and low fertility lands in Povelçë, Shtyllas, Cakran, Portëz, Seman, etc., remain unfarmed. This change of structure prompted new problems vis-à-vis the selection of forms of land consolidation relative to their significance in the cultivation structure and, particularly, with regard to cooperation among farmers and their organization in agricultural cooperative associations and collective farms as well as the support infrastructure.

Figure 2. Area of Olives Cultivated 2016 (left); Land and Production in 2016 (right)



Source: Authors' own calculations based on data from Fier Municipality Archives

The above graphs show that olive cultivation in the Administrative Unit of Cakran occupies 44% of the municipality's total area and 49% of its production. From this perspective, farmers' organization into a collective farm or agricultural cooperative association, coupled with the establishment of a collection and processing centre for their harvests, would help to boost olive productivity and result in potentials for the collection and processing of crops for other administrative units, such as Levan, Frakull, Cakran. Each administrative unit has its particular priorities adapted to land fertility, regionalization, and labour force. Based on data from Fier Municipality archives, Levan, Frakull and Cakran amount for almost 70% of the overall vineyards area of the municipality. Levan, Dermenas and Libofsh cover around 42% of the grain crops cultivated in the municipality. Meanwhile the administrative units Qendër, Levan and Mbrostar are cultivated almost 40% of vegetables.

Another important analysis in this aspect included the agro-production assessment of farmland. This analysis indicates the production capacity of land parcels used by farmer during; renting and/or selling land; readjustment or reconfiguration of plots through exchange between farmes; planning of agricultural production; use of agricultural inputs; and implementation of institutional measures on land protection. According to the agricultural production assessment of the arable land in Fier municipality, soils of classes 1-4 dominate in 67% of the total area of 39,905 ha (Soil Science Institute, 2005, p. 4).Their physical, chemical, and biological qualities allow for the development of intensive agriculture. From the perspective of land consolidation, the soil capacity indicator makes it possible for the scheme of parcel exchange in similar conditions among farmers (readjustment) to be applied in 67% of the municipality's overall farmland.

Proposals on Forms of Consolidation

The forms of consolidation proposed under this program are based on an analysis and study of the indicators collected in the Municipality of Fier as well as on suggestions, ideas, and discussions with various stakeholders. The data show that the consolidation program can be applied in 67% of the total farmland, making use of various consolidation methods. The application of land consolidation forms should match the existing conditions of each administrative unit and should be embraced by local stakeholders and communities. Some of the proposed forms include exchange of parcels of similar conditions among farmers (readjustment), farmers' group work, and farmers' cooperation through collective farms and agricultural cooperative associations, particularly for the collection and sale of produce. Consolidation through readjustment of parcels is extensively being applied in Central and South-East European countries.

Concretely speaking, the Land Consolidation Program in Fier foresees:

- Land consolidation by plot: This can be achieved by means of an agreement among farmers to cultivate the same crop in the base parcel of 12-14 ha, to allow for the application of technology, reduction of costs, and joint sale of their produce.
- Land consolidation by crop: This is based on the cooperation among farmers in the collection and joint sale of their produce in collection sites – and in production locations when available – in order to facilitate farmers' cooperation, protection of farmland, collection, processing, and marketing of production.
- Organization of 10 agricultural cooperative associations:
  The associations may be established through the regionalization of production in the administrative

units, such as in Frakull for vegetables, greenhouses, and strawberries, in Topoja for cereals and livestock, in Cakran for olives and vineyards, in Leval for cereals and vegetables, in Dermenas for cereals and agritourism, etc.. The creation of collective farms, or agricultural cooperative associations is voluntary and maintains farmers' ownership on land. Farmers share assets, deliver their produce in collection points, and cultivate similar crops to meet market demand. In this regard, farmers select leading bodies, and abide by an adopted statute, which regulates the relationship between the collective farm and its members.

- Land consolidation by plot: This can be achieved by means of an agreement among farmers to cultivate the same crop in the base parcel of 12-14 ha, to allow for the application of technology, reduction of costs, and joint sale of their produce.
- Promotion of Land Market (sale and rent): As a major instrument of land consolidation and farm enlargement, the land market – selling and renting, can only reach a level 4-5 % of the overall area of agricultural land, because ownership title registration in this municipality is complete for only 14-15% of the land, based on data from the Regional Immovable Property Registration Office in Fier.
- Exchange of parcels and consolidation after readjustment: The exchange should take place on the basis of a voluntary agreement among farmers, aiming at reallocating parcels to be contiguous within the farm, increasing farm size and adjusting shape, consolidating land, adapting and rehabilitating drainage and irrigation systems and internal roads, and creating agricultural landscapes which are environmentally sustainable. For example, in the administrative unit of Mbrostar, 52.5% of the total farmland belongs to one single productivity class (Class 3), and land parcels of similar conditions can be exchanged among farmers within this area. Exchange of parcels among farmers is the easiest and least costly process to guarantee consolidation. At the end of the process, the newly created properties will be registered at the immovable property registration office. Costs related to the process should be planned beforehand. However, as Brink (2004, p. 9) suggests based on experience from the Netherlands "The importance of land reallocation has gradually diminished", because, sometimes, local conditions require for the application of the other instruments.

Conclusions and Suggestions

This article provided an overview of the 'Consolidation of the Agricultural Land for Sustainable Development of Agriculture in the Municipality of Fier' Project as a good practice for the design of land consolidation programs at the local level. In addition to achievements at the local level, the Project informed on potential amendments to the existing legal framework and national strategies in place.

This study reveals that the level of farmland fragmentation is high, with some 26,800 small farms of around 0.47-2 hectares each, dominated by mixed farms that produce for own consumptions and little for market sale. Land fragmentation is a serious impediment to sustainable development of agriculture in this municipality of significant agricultural attributes. This is clearly seen in the low productivity, lack of application of technologies, increased production costs and decreased economic indicators, poor support infrastructure (deficient irrigation and drainage system), and sparse land use and land loss. Nearly 20-30% of the land is uncultivated and about 500 ha of farmland in the plain areas is unfarmed because

of being taken up by fences and narrow furrows. These factors render collection and sale of produce difficult. Land is physically degraded, because farmers use various non-scientific and non-technological practices. Land plots originally designed for being 12-14 ha in size are sectioned into smaller land parcels and allocated to the ownership of 15-25 farm households.

Land consolidation remains the main tool to circumvent the fragmentation-derived deficiencies of the agricultural production, and to ensure an effective use of land. Local authorities will have to engage in a process of cooperation with farmers, regional agriculture authorities, and experts, to facilitate land consolidation, as clearly shown from the Municipality of Fier's experience. Only in this way can a land consolidation program accepted by all stakeholders be designed. This program has a strong likelihood of successful implementation as it enjoys local authorship, even though land consolidation is a relatively difficult process. Indeed, the land consolidation program in Fier was adopted through an inclusive process at the local level prior to its submission to the parliamentary commission for production, trade and environment.

The land consolidation programs should incorporate a variety of instruments that can be used proportionally and adapted to the existing conditions. These instruments include: land consolidation by parcel; land consolidation by crop; group work and organization of agricultural cooperative associations; readjustment and creation of land consolidation bodies. While they may learn from Fier's experience, other municipalities will need to adapt the land consolidation programs to their own conditions of agricultural lands and to fit their own local interests.

The promotion of the agricultural land consolidation process necessitates the update of the legal and strategic framework on land consolidation at the national level. It is necessary to develop and adopt a law on land consolidation, which will serve as the foundation for the entire process with the final goal of protecting arable land and matching local interests with those of the national government.

The National Land Consolidation Strategy and related legislation should place the local governance at the core of the process and assign to it the responsibilities and competences pertaining to this domain. Likewise, a successful consolidation process is dependent on the progress in addressing land ownership problems and on the improvement of legislation on ownership titles with the aim of reducing the pace of and ending the further fragmentation of agricultural land. Persisted fragmentation is predominantly seen in the separation of newly-created families from the main family trunk.

In addition, the conclusion of the property registration process is another precondition for the prevention of fragmentation and for the promotion of agricultural land consolidation. While land market remains an encouraging tool for farm growth and land consolidation through transactions, the process of land registration in Fier is complete for only 15-20% of the cases – a low figure that discourages financial transactions.

Last but not least, it is indispensable to implement favourable policies for farmers that consolidate their lands and for groups that collaborate through collective farms and agricultural cooperative associations and achieve measurable results. To this end, these farmers and groups can be exempted from tax on agriculture land for a given period of time. Support to farmers with funding or agriculture subsidies should, however, be conditioned with requirements for land consolidation and enlargement of farm size.

Notes

1. Adopted upon the Council of Ministers' Decree No. 709, dated 29.10.2014.
2. Adopted upon the Council of Ministers' Decree No. 700, dated 12.10.2016.
3. A municipality in Albania is composed of a central urban area and several administrative units that are mainly rural.
4. Communes were local governments with mainly rural territories. Communes and municipalities had the same rights and tasks under the legislation on local governance.

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