

The Impact of Subsidies

on Agricultural Production



July 2021

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1. Executive Summary

Agriculture plays an important role in improving the trade balance, increasing employment and the economic development of the country. The 2007-2013 Agriculture, Forestry and Rural Development Plan is one of the earliest documents setting out the first supporting policies for agricultural development. The document assesses that one of the main causes slowing agricultural production is the small farm structures and high level of land fragmentation. Consequently, support policies were designed precisely to tackle such problems. But, what has been the impact of this support program in improving the structure and increasing agricultural productivity?

In two separate reports, the GAP Institute has analyzed how grants¹ and subsidies have impacted agricultural production. Between 2015 and 2019, about 134.7 million Euros were distributed in direct payments (subsidies) from the Ministry of Agriculture, Forestry and Rural Development (MAFRD) to sectors of grains, vineyards, livestock and poultry. However, in 2019, in most agricultural sectors, the productivity, planted areas and yields do not seem to have changed much compared to the period before the introduction of such supporting policies. In cases where there is growth in productivity or yield, such increase is much lower than the increase in direct payments that occurred over the years.

This research paper shows that wheat yield in 2019 was lower by 4.3 percent compared to that of 2010. The area planted with wheat increased by 2.4 percent, while the amount of direct payments increased by 150 percent. In 2019 the areas planted with barley was 63 percent higher compared to the year when direct payments first began for this sector, but the amount of subsidies tripled. On the other hand, no improvement in the structure of the planted areas is observed. In the dairy industry, despite the tripling of direct payments over the years, and an increase in payments per cattle head, the number of dairy cows and milk production decreased by more than 30%. During 2008-2009, the number of dairy cows was about 60 thousand higher than in the years 2018-2019, while milk production was over 100 thousand tons higher.

The lack of progress in achieving the expected outcome, despite high financial support, calls into question the effectiveness of agricultural policies, or the way those subsidies were distributed.¹ According to the National Audit Office, the management of the agricultural sector has significant shortcomings. GAP Institute recommends a detailed assessment of whether the absence of expected outcomes is due to inadequate agricultural policies, or improper management of funds.

¹ GAP Institute, 2021, "The Impact of Subsidies on Agricultural Production".

2. Introduction

Agricultural development remains one of the country's economic priorities included in every Government program.² Its potential lies mainly in substitution of imports, which continue to be extremely high, especially in food products. From 2014 to 2019, the trade deficit in agricultural products increased by 20.3%.³ This trend reflects the increase in domestic demand and the inability of domestic production to meet the demand. Agricultural development, in addition to import substitution, represents a good opportunity to increase exports, which in turn may contribute to increased employment in rural areas, where unemployment remains high.

One of the earliest documents identifying the shortcomings of agricultural development in Kosovo is the "Agriculture, Forestry and Rural Development Plan 2007-2013", which was later replaced by a revised version 2010-2013. This document assesses that one of the main causes slowing agricultural production is the small farm structures and high level of land fragmentation.⁴ This unfavorable structure of farms and arable lands has caused the agricultural production to remain mainly in subsistence, that is largely used for own consumption and not for commercial production. Other issues identified by this document are farmers' poor access to finance, lack of adequate education to increase yields, poor quality of production, and others.⁵

In the same document, the Ministry of Agriculture, Forestry and Rural Development introduced a series of agricultural policies, which aimed to increase commercial production through the provision of financial incentives, such as direct payments. Direct payments or subsidies are guaranteed funds given per hectare of land planted for various agricultural crops or per head of livestock payments.

In 2013, the Agriculture and Rural Development Program 2014-2020 was drafted, including other grain crops and livestock. In addition to expanding support, the amount of public funding distributed increased from year to year. These agricultural policies were designed to tackle the aforementioned issues.⁶ For example, the distribution of direct payments per hectare of planted land, and the establishment of a minimum size of arable land, aimed at increasing the size of the farms, and preventing further fragmentation of the land. This measure aimed to increase commercial production and improve the quality of production. Whereas, per head of livestock payments were set as incentives for farmers to increase the number of their livestock, which intended to increase agricultural production.

Between 2015 and 2019, about 134.7 million Euros in subsidies were distributed by the Ministry of Agriculture, Forestry and Rural Development.⁷ Although there has been a continuous investment in the development and growth of agricultural production, a comprehensive report has yet to be published by the Ministry, thereby indicating the effects of such investments on production capacities.

In this report, the GAP Institute aims to present the impact of subsidies on agricultural production and restructuring. The assessment was carried out by selecting the most supported agricultural activities since the introduction of agricultural policies. The impact of direct payments on grains and vineyards is presented first and continues with livestock and poultry.

² Government Program 2020-2023. Published in May 2020. Source: <https://bit.ly/2QoLxrE>

Government Program 2020-2023. Published in May 2021. Source: <https://bit.ly/3xXt949>

³ Agricultural Development Agency. Green Report 2020. Source: <https://bit.ly/3vQRXKy>

⁴ Ministry of Agriculture Forestry and Rural Development. Agriculture and Rural Development Plan 2010-13. Source: <https://bit.ly/3s6x5cr>

⁵ Ibid.

⁶ Ibid.

⁷ MAFRD, 2020 Kosovo Agriculture in Numbers. Source: <https://bit.ly/33xwLfb>

3. Subsidies in grains and vineyards

3.1 Wheat

Wheat planting in agricultural production is of particular strategic and economic importance. Wheat is an integral component of many food products; it is also used for bread production, animal feed, and in some cases poultry food. Wheat is the most cultivated agricultural crop in the grain category, where about 66 percent of arable land is planted with wheat.⁸

Nonetheless, despite these production rates, Kosovo has not managed to cover its demand for wheat. The main issues in wheat cultivation are low yields and lands fragmented into small plots which make mass production difficult.

To help increase production, in 2010 MAFRD allocated direct payments, or subsidies, to farmers cultivating wheat for the first time. From 2010 to 2019, over 52 million Euros were spent on direct payments for wheat planting. The purpose of this program was, and continues to be, the increase of yields, improvement of production quality, reduction of production costs and intensified economy of agricultural activities. Therefore, the criteria set forth in order to benefit direct payments for wheat planting aim to achieve these goals.

To provide incentives for the growth of land planted with wheat, beneficiaries are required to fulfill the following: a) they must have planted at least two hectares of owned land in wheat, b) the plot planted with wheat must be at least 0.20 hectares without divisions, c) the leased land area must be contracted for at least one year, and e) the leased land area must be at least 0.50 hectares without divisions.⁹ Increased land size planted by farmers allows for mass production, higher yield and achieving economies of scale, which in turn means reduced costs of production, as a result of mass production.

Nevertheless, compared to 2010, wheat yield in 2019 fell by 4.3 percent, causing the production to decrease by 3.2 percent. The area planted with wheat increased by 2.4 percent, while the amount of direct payments was increased by 150 percent. In terms of production economy, since 2010, the average subsidized area with wheat per farmer continued its decline, from 4.6 hectares in 2010 to 4.1 hectares in 2019. This is a 11.4 percent decline, which renders mass production and the realization of economies of scale difficult.

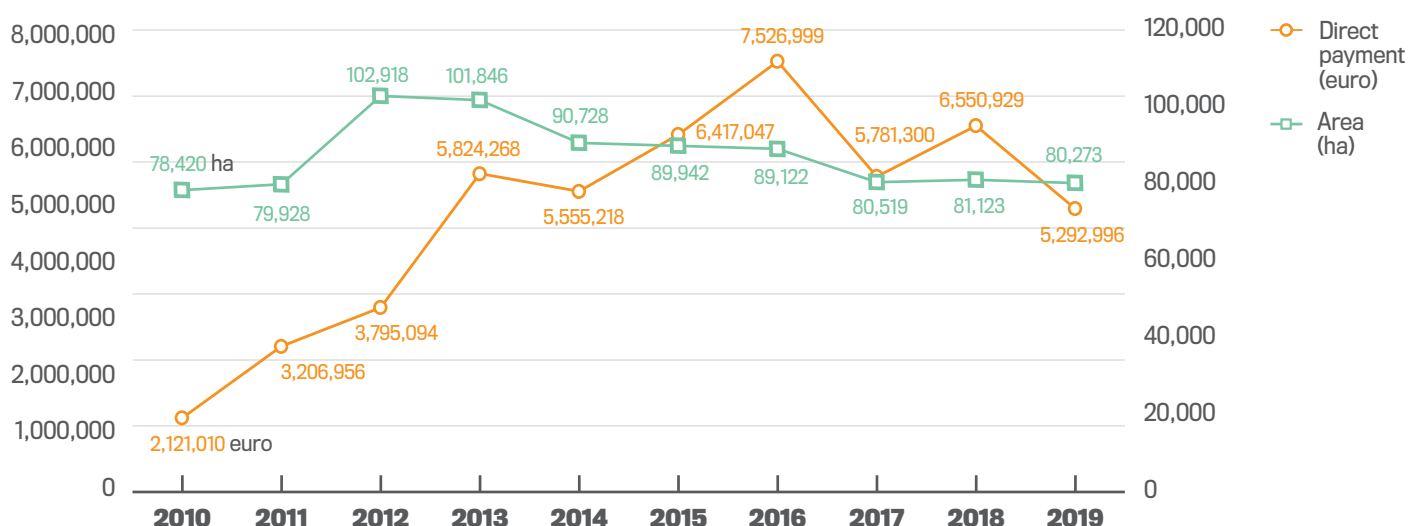
⁸ Agricultural Development Agency. Green Report 2020. Source: <https://bit.ly/3vORXKy>

⁹ MAFRD, Direct payments Program, 2019. Source: <https://bit.ly/2QB3OMl>

Table 1. Performance indicators of direct payments in wheat production, period 2010-2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2010
Area (ha)	78,420	79,928	102,918	101,846	90,728	89,942	89,122	80,519	81,123	80,273	2%
Production (tons)	294,540	300,203	345,027	391,727	331,296	304,443	365,651	320,136	280,616	284,999	-3%
Yield (t/ha)	3.76	3.76	3.35	3.85	3.65	3.40	4.10	4.00	3.50	3.60	-4%
Direct payments	2,121,010	3,206,956	3,795,094	5,824,268	5,555,218	6,417,047	7,526,999	5,781,300	6,550,929	5,292,996	150%
Subsidized units (ha)	23,566	32,070	37,951	46,594	44,442	42,780	50,180	38,542	43,673	35,287	50%
Payment per ha	90	100	100	125	125	150	150	150	150	150	67%
No of beneficiaries	5,145	8,364	8,841	10,686	10,579	10,298	11,602	9,216	10,311	8,699	69%
Average area (ha) per farmer	15.24	9.56	11.64	9.53	8.58	8.73	7.68	8.74	7.87	9.23	-39%

Source: Green Report 2014-2020 of the Ministry of Agriculture, Forestry and Rural Development

Figure 1. Areas and direct payments for wheat, during the years 2010-2019

Source: Green Report 2014-2020 of the Ministry of Agriculture, Forestry and Rural Development

The increase in payments from year to year for this agricultural crop does not seem to have had an impact on the increase of the planted area. Direct payments have not managed to change the structure of the planted plots either. Wheat production continues to be conducted by farmers with low production capacities. As a result, insufficient production has caused dependency on imports, where compared to 2012, the import of wheat as quantity (tons) has increased by 24 percent.

Table 2. Import of wheat, in values and quantities, during the years 2012-2019

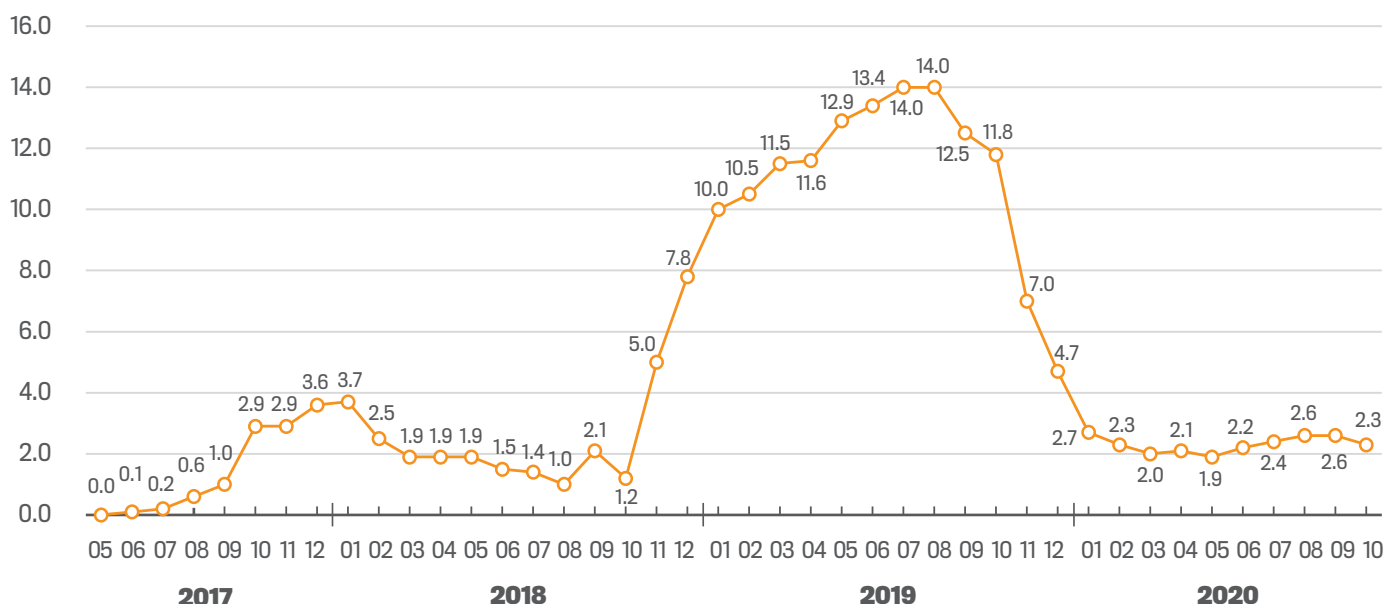
	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Value (in €000)	21,786	15,870	16,617	18,068	19,501	16,447	20,404	24,125	11%
Quantities (tons)	96,994	78,168	89,151	98,063	127,123	97,208	114,054	120,489	24%

Source: Kosovo Agency of Statistics (KAS), developed by DAESB¹⁰

¹⁰ Department of Economic Analysis and Agricultural Statistics (DAESB). Source: <https://bit.ly/39YCizm>

Dependency on imports is associated with uncertainties in supply and price. In November 2018, when the Government of Kosovo imposed a 100 percent tariff on products imported from Serbia and Bosnia and Herzegovina (BiH), wheat prices underwent major changes. Figure 2 shows an increase in the price of bread and grains in November 2018, and then their stabilization after finding other suppliers in the region.

Figure 2. Monthly price changes of bread and grains, during the years 2017-2020



Source: KAS¹¹

3.2 Maize

Maize is a plant of high production potential. Planting of maize is of particular importance in agricultural production because it is an integral part of many food products such as flour, bread, soup, salads, oil, pastries and others. Maize is also used as animal feed.

In 2012, subsidies began with direct payments to farmers who cultivated maize. Until 2019, over 19 million Euros were spent on direct payments for maize planting. The purpose of this program was similar to the wheat sector, thereby aiming to increase yields, improve production quality, reduce production costs, and intensify the economy of agricultural activities. To obtain subsidies, farmers are required to own at least two hectares planted with corn for at least 0.20 hectares of land plot without divisions. Whereas, tenant farmers are required to have contracted land for at least one year, with at least 0.50 hectares of land without divisions.¹²

Unlike wheat, there is a slight increase in maize yield, production, and planted areas since 2012. However, the increase in direct payments is much greater than the increase in planted areas. From 2012 to 2019, maize planted land increased by 26 percent, while direct payments increased sevenfold (Figure 4).

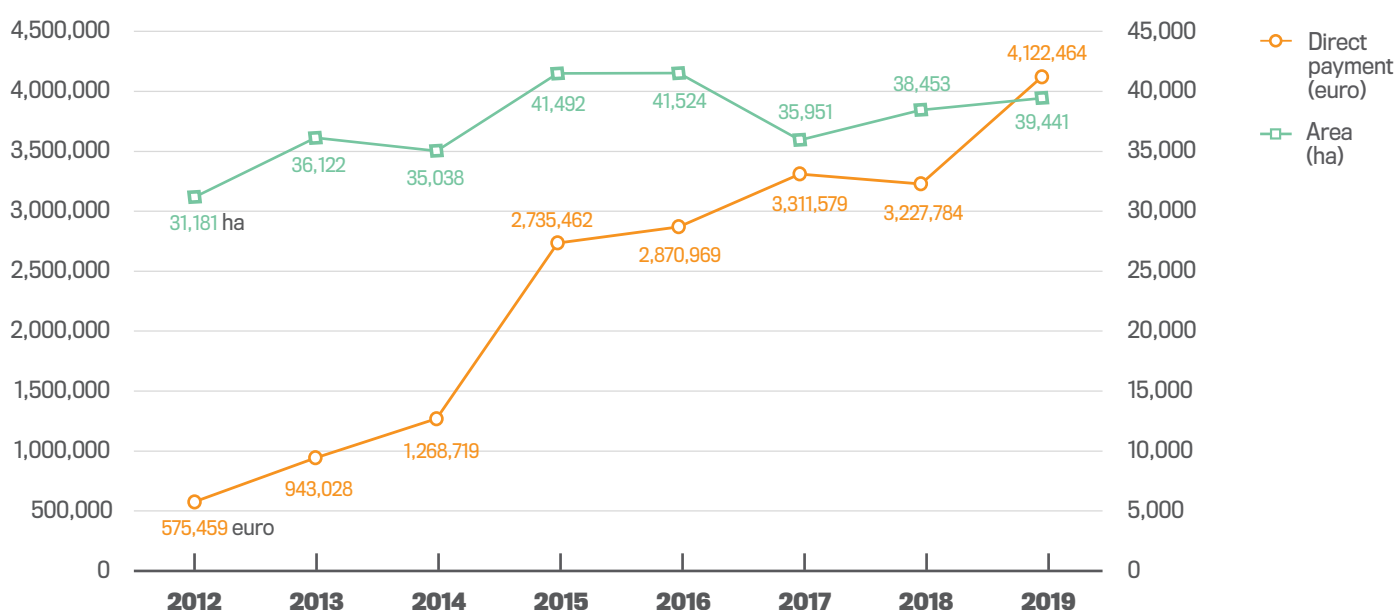
¹¹ Kosovo Agency of Statistics. Source: <https://bit.ly/3cXz7tw>

¹² Agricultural Development Agency. Source: <https://bit.ly/3aNzleG>

Table 3. Performance indicators of direct payments in maize production, period 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Area (ha)	31,181	36,122	35,038	41,492	41,524	35,951	38,453	39,441	26%
Production (tons)	86,304	136,633	116,209	131,486	186,592	147,200	151,921	163,930	90%
Yield (t/ha)	2.8	3.8	3.3	3.2	4.5	4.1	4.0	4.2	50%
Direct payments	575,459	943,028	1,268,719	2,735,462	2,870,969	3,311,579	3,227,784	4,122,464	616%
Subsidized units (ha)	5,755	9,430	12,687	18,236	19,140	22,077	21,519	27,483	378%
Payment per ha	100	100	100	150	150	150	150	150	50%
No of beneficiaries	2,209	3,626	5,413	7,574	7,763	8,231	8,165	9,370	324%
Average area (ha) per farmer	14.12	9.96	6.47	5.48	5.35	4.37	4.71	4.21	-70.18%

Source: Green Report 2011-2020 of the Ministry of Agriculture, Forestry and Rural Development

Figure 3. Areas and direct payments for maize, during the years 2012-2019

Source: Green Report 2014-2020 of the Ministry of Agriculture, Forestry and Rural Development

The average subsidized area of maize per farmer has marked a slight increase from 2.6 hectares per beneficiary in 2012, to 2.9 hectares in 2019. This increase in the subsidized unit per farmer is a good step toward mass production and the realization of economies of scale. However, this increase is insufficient as maize production is lower than the market demand in Kosovo thus far. Since the beginning of subsidizing this agricultural crop, imports per ton have increased by 96 percent. Therefore, despite the slight increase in production, direct payments from 2012 have multiplied, while market needs are still met by imports, which have almost doubled since 2012.

Table 4. Maize imports in values and quantities, during the years 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Value (in €000)	4,829	5,234	5,602	6,911	8,102	7,698	8,051	7,901	64%
Quantities (tons)	24,425	29,425	34,956	42,944	52,439	48,318	50,684	47,754	96%

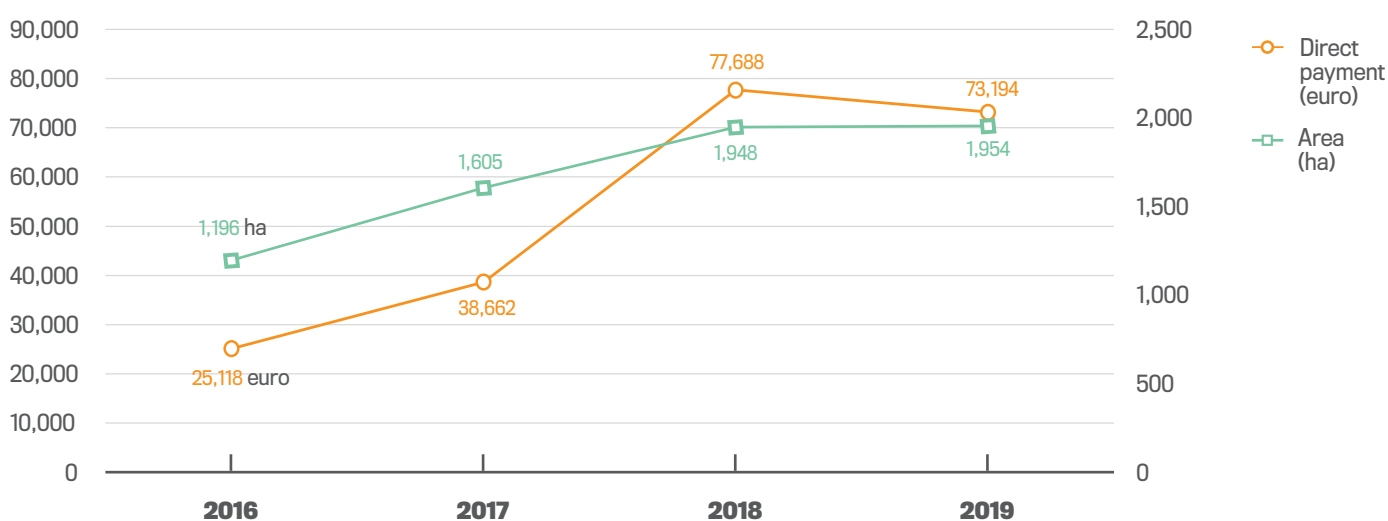
Source: Kosovo Agency of Statistics (KAS), developed by DAESB¹³

3.3 Barley

Barley is a traditional agricultural crop, planted throughout the territory of Kosovo, and covers on average approximately 1,500 hectares of land, or 1.6 percent of the area planted with grains.¹⁴ The development of this sector is important for the production of beer and animal feed, in addition to increasing the incomes of farmers in this sector.

In 2016, the MAFRD direct payment program began subsidizing farmers cultivating barley. The purpose of this program again remains similar to the other crops mentioned above, including increasing yields, improving production quality, reducing production costs and intensifying the economy of agricultural activities.¹⁵ During the years 2016 to 2019, over 240 thousand Euros were allocated to increase the production capacity of barley. The direct payment program had a requirement for the applicant farmers, which was to own at least one hectare of land planted with barley, with at least 0.20 hectares without divisions. Meanwhile, tenant farmers were required to have paid their leases for at least 0.50 ha of a plot without divisions, for at least one year.¹⁶

Similar to the maize production, areas planted with barley had increased by 63 percent from the starting year of direct payments until 2019, while subsidies tripled. On the other hand, there is no increase in subsidized units per farmer, which would allow for the improvement of the structure of planted land and mass production.

Figure 4. Areas and direct payments for barley, during the years 2016-2019

Source: Green Report 2014-2020 of the Ministry of Agriculture, Forestry and Rural Development

¹³ Department of Economic Analysis and Agricultural Statistics (DAESB). Source: <https://bit.ly/39YCizm>

¹⁴ Economic catalog for agricultural products 2020. Source: <https://bit.ly/zRKqiuX>

¹⁵ Direct payment program. MAFRD. Source: <https://bit.ly/zQB3OMI>

¹⁶ Ibid.

From 2008 to 2019, the barley yield had an average value of about 3 t/ha, while the highest value reached during this period was 3.2 t/ha in 2012, 2013 and 2014. Despite the implementation of the direct payment program from 2016 to 2019, a low yield continued to be observed.

Table 5. Performance indicators of direct payments in barley production, for the years 2016-2019

	2016	2017	2018	2019	Difference 2019/2016
Area (ha)	1,196	1,605	1,948	1,954	63%
Production (tons)	3,669	4,687	5,124	5,159	41%
Yield (t/ha)	3.07	2.92	2.63	2.64	-14%
Direct payments	25,118	38,662	77,688	73,194	191%
Subsidized units	251	387	518	488	94%
No. Beneficiaries	133	208	306	267	101%
Average area (ha) per farmer	8.99	7.72	6.37	7.32	-18.62%

Source: Green Report 2020 of the Ministry of Agriculture, Forestry and Rural Development, and Economic Catalog for Agricultural Products 2019

The increase in barley production is accompanied by a decrease in imports for this category. Although the market demands of Kosovo for this agricultural crop are relatively low, a further increase in production can fully meet local needs and enable the growth of exports.

Table 6. Barley trade deficit in values during 2016-2019

	2016	2017	2018	2019	Difference 2019/2016
DefTrade deficit (€)	-28,300	-11,826	-21,201	-13,510	-52%

Source: Kosovo Customs

3.4 Wheat seeds

The process of producing wheat seeds goes through several stages making it an economically costly activity. Obtaining quality seed, propagation, pre-culture, field inspections, processing, labeling, seed sampling, as well as additional protection measures further increase the need for financial support.¹⁷

In 2012, subsidies began with direct payments to farmers who cultivated wheat seeds. By 2019, over 855 thousand Euros were distributed. A principal goal of this program was to increase the yield, improve the quality of production of wheat seeds and mercantile wheat, reduce production costs, increase processing capacity and intensify the economy of agricultural activities. This support was intended to achieve the supply of wheat seeds within the country.¹⁸

The direct payment program offers a larger share of payments for wheat seed growers, while setting the following subsidy criteria for applicants: a) farmers must have planted at least five hectares for seed production, b) farmers must have a contract with a seed production company, c) the plot planted with wheat for seeds or rented for planting wheat for seeds must be at least one hectare

¹⁷ MAFRD. Direct payments Program, 2015. Source: <https://bit.ly/3wdD5Wq>

¹⁸ MAFRD. Direct payments Program, 2019. Source: <https://bit.ly/31mTtWf>

without divisions; d) the leased land area must be contracted for at least one year; e) the seeds of the planted wheat variety must be on the list of permitted seeds.¹⁹

Upon the introduction of support for wheat seed production and until 2019, the amount of direct payments has increased by 461 percent from 25 thousand to over 140 thousand per year, while the area planted with this crop has decreased by 4 percent. In the absence of production and yield data, we find that the support for this sector does not seem to have played any role in increasing the area planted with wheat seeds. The planted area sizes have fluctuated a lot over the years, making the production trends still unclear.

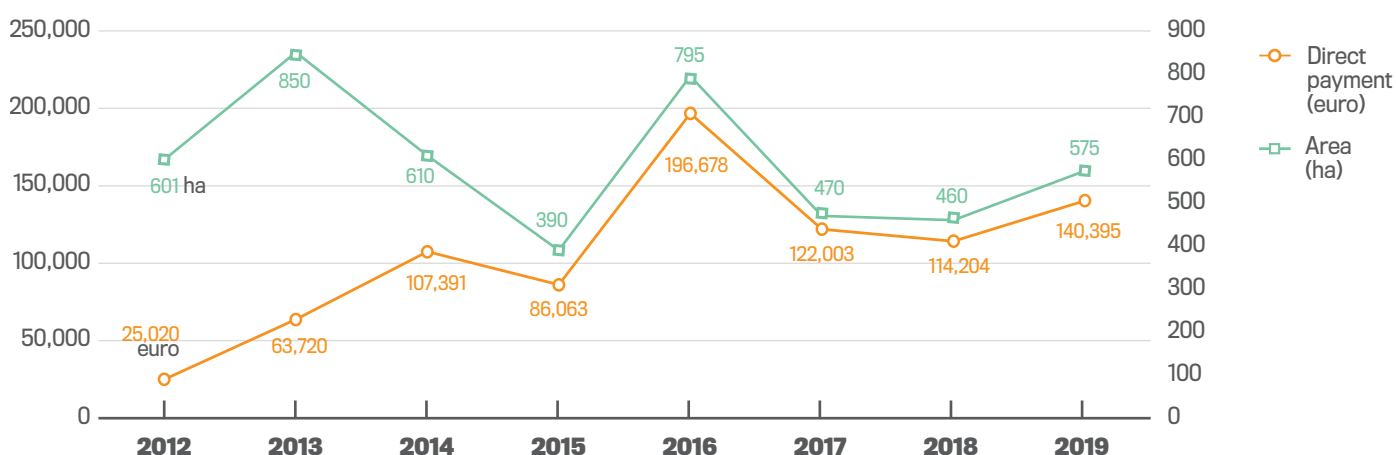
Another fact noticed is that from 2012 to 2019, there had been a continuous increase of subsidized units per farmer. This may be an indication that there is an increase in arable land per farmer, which enables long-term improvement of economies of scale. So far, this factor has not influenced the growth of land planted with wheat seeds.

Table 7. Performance indicators of direct payments in wheat seeds production, period 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Area (ha)	601	850	610	390	795	470	460	575	-4%
Direct payments	25,020	63,720	107,391	86,063	196,678	122,003	114,204	140,395	461%
Subsidized units ha	250	850	511	344	803	508	458	562	125%
Payment per ha	100	75	210	250	250	250	250	250	150%
No of beneficiaries	10	27	16	11	25	11	11	15	50%
Average area (ha) per farmer	60.10	31.48	38.13	35.45	31.80	42.73	41.82	38.33	-36.22%

Source: Green Report 2020 of the Ministry of Agriculture, Forestry and Rural Development, and Economic Catalog for Agricultural Products 2020

Figure 5. Areas planted and direct payments for wheat seed, during the years 2012-2019



Imports of wheat seeds have continuously declined in values and quantities since 2012. Kosovo continues to import wheat seeds, but with a lighter dependency on imports. Given the decline in the areas of land planted with wheat seeds, the decline in imports may also be as a result of declining domestic demand.

Table 8. Imports of wheat seeds, in values and quantities, during the years 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Value (in € 1,000)	7,503	4,307	3,369	3,515	2,526	2,531	2,196	1,865	-75%
Quantities (tons)	25,728	14,920	10,954	10,845	8,160	7,848	6,639	5,288	-79%

Source: Kosovo Agency of Statistics (KAS), developed by DAESB²⁰

3.5 Rye

Rye holds high importance in agricultural production since it is rich in high nutritional value (fiber, protein, potassium, calcium, iron, phosphorus, magnesium, and others), and is also used as an ingredient in many food products. In 2016, subsidies began with direct payments to farmers who cultivated rye. The purpose of the program for this sector is the increase of yields, improvement of production quality, reduction of production costs and intensified economy of agricultural activities.²¹

From 2016, through the program for direct payments, financial support was provided to rye growers who expressed interest, and managed to prove that they have planted at least one hectare of rye with at least 0.20 hectares of land plot without divisions. Whereas, the tenant farmers are required to have the leased land area contracted for at least one year, for not less than 0.50 hectares of indivisible plot.²²

Rye yield from 2008 to 2019 had an average value of 2.4 t/h, while the highest yield achieved during this period was 2.9 t/h in 2005. In order for the rye yield to be even higher, in 2016 direct payments were allocated to farmers who cultivate rye and meet the criteria for subsidies. After the implementation of the program for direct payments, from 2016 to 2019, the highest increase achieved in rye yield was 0.3 t/ha in 2017, while in 2016, 2017, and 2019 rye yield was 2.4 t/ha.

With the distribution of direct payments for rye cultivation, there was no substantial increase in the planted area or production. During the years 2016 to 2019, rye planting increased only by one percent and production by 2 percent, while direct payments increased by 47 percent.

²⁰ Department of Economic Analysis and Agricultural Statistics (DAESB). Source: <https://bit.ly/39YCizm>

²¹ Direct payment program. MAFRD. Source: <https://bit.ly/3f7vXD1>

²² Ibid.

Table 9. Performance indicators of direct payments for rye crops, for the years 2016-2019

	2016	2017	2018	2019	Difference 2019/2016
Area (ha)	414.89	318.17	434.32	419.83	1%
Production (tons)	991.2	865.82	1,048.88	1,010.48	2%
Yield (t/ha)	2.4	2.7	2.4	2.4	0%
Direct payments	19,977	16,957	29,343	29,423	47%
Subsidized units	199.77	170	195.62	196.15	-2%
No. Beneficiaries	61	67	72	67	10%
Average area (ha) per farmer	6.80	4.75	6.03	6.27	-7.79%

Source: Green Report 2020 of the Ministry of Agriculture, Forestry and Rural Development and Economic Catalogue for Agricultural Products 2020

The highest financial support for farmers in this sector was in 2018 and 2019 when over 29.4 thousand Euros were allocated in 2019 and 29.3 thousand Euros in 2018. Compared to 2017, payments for these two years were over 70 percent higher, while the number of beneficiaries remained the same as in 2017 and subsidized units increased by 26 plots.

3.6 Existing vineyards

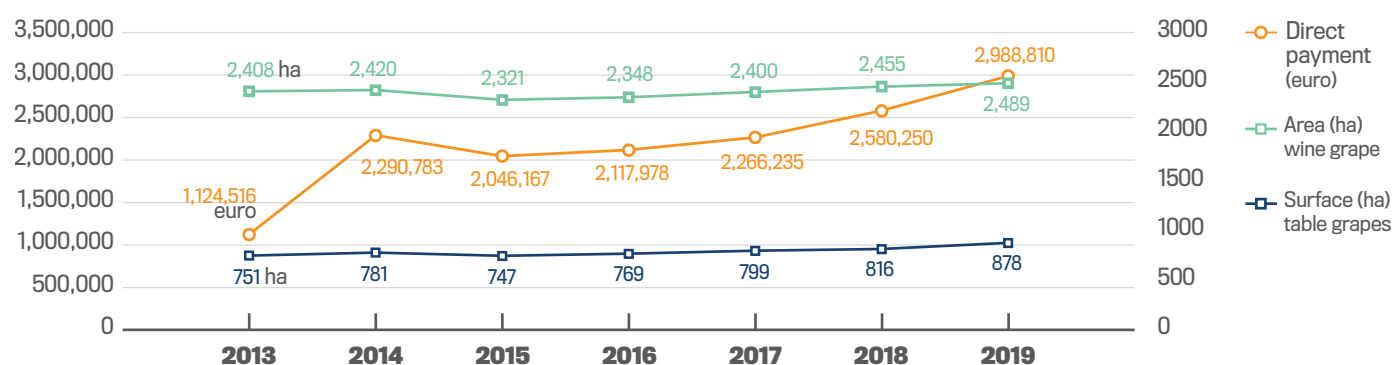
There are on average 3,200 hectares of land planted with vineyards in Kosovo. Since the goal is the permanent maintenance of the currently planted areas, as well as the addition of new areas, the Ministry of Agriculture, Forestry and Rural Development expanded the program of direct payments in 2013 to include farmers in the viniculture sector. Between 2013 and 2019, about 15.5 million Euros were distributed in subsidies for farmers.

The purpose of the direct payment program during these years for the viniculture sector was the increase of yields, improvement of production quality, reduction of production costs and intensified economy of agricultural activities. To benefit from direct payments, farmers who own arable land with vineyards are required to have planted at least 0.10 hectares of vineyards, where the planted plot of the vineyard must be at least 0.05 ha undivided. Whereas, tenant farmers were required to have paid their leases for at least 0.10 ha of a plot without divisions, for at least one year.²³

Figure 7 shows that while the amount of direct payments has almost tripled from 2013 to 2019, the area planted with vineyards has remained relatively the same, with a slight increase of 6.6 percent. At the same time, production fell by 30 percent, mainly due to the decline in vineyard yields since 2013.

23 MAFRD. Direct payments Program for 2019. Source: <https://bit.ly/31mTtWf>

Figure 6. Areas and direct payments for existing vineyards, during the years 2013-2019



Source: Green Report 2016-2020 of the Ministry of Agriculture, Forestry and Rural Development

Table 10. Performance indicators of direct payments for existing vineyards, for the years 2013-2019

Vineyards	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2013
Surface (ha) table grapes	751	781	747	769	799	816	878	17%
Area (ha) wine grape	2,408	2,420	2,321	2,348	2,400	2,455	2,489	3%
Total vineyards	3,159	3,201	3,068	3,117	3,199	3,272	3,367	6.6%
Production								
Table grapes	7,137	4,869	6,996	6,866	3,187	4,998	4,546	-36%
Wine Grapes	20,473	15,101	18,426	16,800	12,177	22,324	14,772	-28%
Vineyards	27,610	19,970	25,422	23,666	15,364	27,322	19,318	-30%
Yield								
Table grapes	9.50	6.23	9.4	8.9	4	6.1	5.2	-45%
Wine Grapes	8.50	6.24	7.9	7.2	5.1	9.1	5.9	-31%
Vineyards	8.7	6.2	8.3	7.6	4.8	8.4	5.7	-34%
Direct payments	1,124,516	2,290,783	2,046,167	2,117,978	2,266,235	2,580,250	2,988,810	166%
Subsidized units ha	2,791	2,435	2,456	2,473	2,508	2,580	2,989	7%
Payment per ha	500/200	1000/300	1,00/300	1,000/400	1,000/500	1,000	1,000	
No of beneficiaries	2,556	2,995	2,806	2,881	2,909	2,949	2,900	13%
Average area (ha) per farmer	1.24	1.07	1.09	1.08	1.10	1.11	1.16	-6.45%

Source: Green Report 2016-2020 of the Ministry of Agriculture, Forestry and Rural Development and Economic Catalogue for Agricultural Products 2016-2020

The surface area of subsidized land per farmer has remained relatively the same, with a slight decrease of 5.6 percent. The decline in subsidized land per farmer makes it difficult to increase mass production and improve economies of scale.

Direct payments to vineyards do not seem to have achieved any of the intended goals, despite their continued growth. From 2012 to 2019, there was a decrease in production and yield, while on the other hand, the fragmented structure of plots planted with vineyards does not seem to have improved.

4. Subsidies in livestock and poultry

4.1 Dairy cows

Cow milk production is the sector with the highest livestock potential in terms of import substitution and export growth. Milk, in addition to consumption in its original form, can be processed into a variety of other products, such as cheese, cream, yogurt, and others.

The main issues in dairy production are small farms with few cattle, milk production by farmers for own consumption, milk quality and high market competition with imported products.

In 2019, Kosovo had over 83 thousand livestock farms, with about 257,733 head of cattle, of which 51 percent (131,939 cattle) were dairy cows.²⁴ The average number of dairy cows per family is low, with one to five cows. Most dairy farmers (94%) have up to five cows, while only about 6 percent of farmers are commercial, with over five cows.²⁵ This small farm structure makes mass production difficult making local producers less competitive in the market.

Domestic milk production in Kosovo is 321,189,946 liters, which means 1,245 liters of milk per cow. A large part (12%) of the milk is used for livestock, family consumption or animal feed, the rest is sold in marketplaces or processed.²⁶ The quality and hygiene levels in the milk collected are not satisfactory in some cases as the Milking Standards (GMH) are not fully applied. Other problems are also related to the fluctuations in milk production in farms, where there is low productivity during the winter due to the lack of food quality, and high productivity during the summer.

In terms of livestock subsidies, dairy cows are subsidized the most. In 2013, 53 percent of the total amount paid was for dairy cows, 29 percent for sheep and goats, 12 percent for bees and 6 percent for chickens. Direct support for dairy cows as payment per head was introduced in 2010. Between 2010 and 2019, over 30.8 million Euros were allocated to farmers, in order to improve the structure of farmers, increase milk production and shift from own consumption to market supply. For this reason, beneficiaries of direct payments must have at least 5 vaccinated dairy cows or buffaloes, and be on the Animal Identification and Registration register. Later, direct payments for dairy cows were increased from 50 to 70 Euros, in order to provide additional incentives to increase production capacity.

Yet, despite the tripling of direct payments over the years and an increase in payments per cattle, the number of dairy cows and milk production has decreased by about 30 percent. During 2008 to 2009, the number of dairy cows was about 60 thousand higher than in the years 2018 to 2019, while milk production was over 100 thousand tons.

In terms of farm structure, there is a slight increase in heads subsidized per farmer. In 2010, an average of 8.6 heads were subsidized per beneficiary, while in 2019, that number rose to 9.5 heads. This is a positive change, however not enough to improve the fragmented structure of milk-producing farmers. Therefore, the distribution of direct payments for nine years does not seem to have had an impact on increasing milk production or improving the structure of farms.

²⁴ Agricultural Holdings Survey 2019. Source: <https://bit.ly/3fcc3XE>

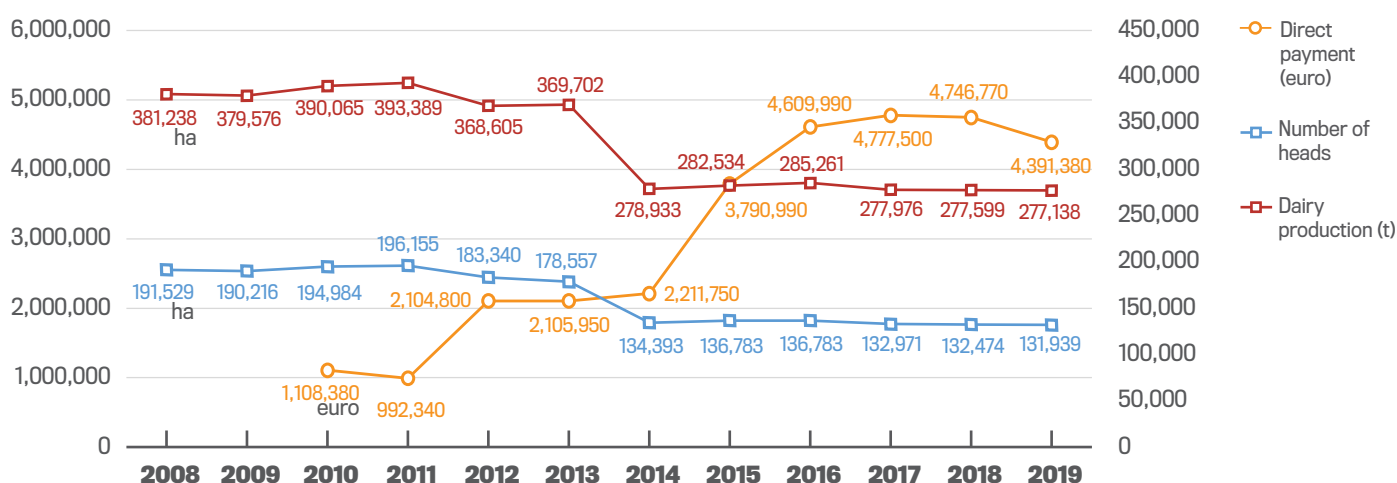
²⁵ Ministry of Agriculture Forestry and Rural Development. Dairy market. Source: <https://bit.ly/33DS12O>

²⁶ Agricultural Holdings Survey 2019. Source: <https://bit.ly/3fcc3XE>

Table 11. Performance indicators of direct payments in dairy production, 2008-2019

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2010
Dairy cows	191,529	190,216	194,984	196,155	183,340	178,557	134,393	135,801	136,783	132,971	132,474	131,939	-32%
Milk Production (t)	381,238	379,576	390,065	393,389	368,605	369,702	278,933	282,534	285,261	277,976	277,599	277,138	-29%
Direct payments			1,108,380	992,340	2,104,800	2,105,950	2,211,750	3,790,990	4,609,990	4,777,500	4,746,770	4,373,460	295%
Number of heads paid for			36,946	33,078	42,096	42,119	44,235	54,157	65,857	68,250	67,811	62,478	69%
Payment per head			30	30	50	50	50	70	70	70	70	70	133%
No of beneficiaries			4,287	4,162	5,231	5,075	5,472	6,451	7,650	7,546	7,395	6,606	54%
Imports			71,252	75,960	72,371	66,582	67,863	67,491	69,284	68,007	70,596	76,139	7%

Source: Source: Green Report 2016-2020 of the Ministry of Agriculture, Forestry and Rural Development

Figure 7. Dairy production, number of heads and direct payments during 2010-2019

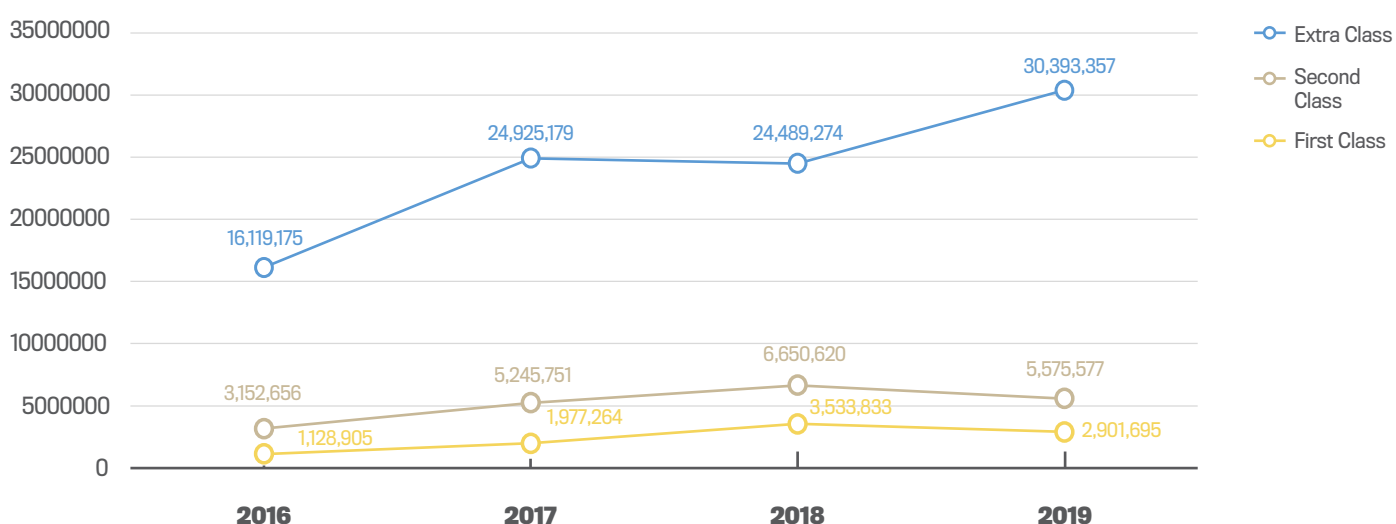
Another line of support for the dairy industry is that of quality improvement. In 2010, the Ministry of Agriculture, Forestry and Rural Development made direct payments or subsidies for categories of milk quality produced in order to provide incentives for farmers to improve their quality of production. For the extra class, payments were made for 0.06 Euros per liter of milk, for the first class 0.04 Euro/liter, and second class 0.02 Euro/liter. The quality needs to be validated by the Food and Veterinary Agency (FVA) and other documents must be provided as evidence against the subsidy requirements under the program, for the quantity required for the given period.

From 2016 to 2019, over 6.5 million Euros were spent on direct payments for quality milk produced. Of these, over 5.7 million Euros were spent on Extra class milk, about 382 thousand on Second class milk, and 412.5 thousand Euros on first class milk. The largest amount paid went to the highest quality (Extra class). Over the years, there has been an improvement in quality, however, a significant number of milk produced continues to remain in the first and second class.

Table 12. Direct payments for quality milk produced 2016-2019

Milk by quality	Extra class	First Class	Second Class
Amount paid 2019	30,393,357	2,901,695	5,575,577
Price for quality (e/liter) 2019	0.06	0.04	0.02
Amount Paid 2019	1,823,601	116,068	111,512
Amount paid 2018	24,489,274	3,533,833	6,650,620
Price per Quality 2018	0.06	0.04	0.02
Amount Paid 2018	1,469,356	141,353	133,012
Amount paid 2017	24,925,179	1,977,264	5,245,751
Price per Quality 2017	1.56	1.04	0.52
Amount Paid 2017	1,495,511	79,091	104,915
Amount paid 2016	16,119,175	1,128,905	3,152,656
Price per Quality 2016	1.56	1.04	0.52
Amount Paid 2016	967,150	45,156	63,053

Source: Agricultural Development Agency

Figure 8. The trends of milk amounts in different qualities during the years 2010-2019

4.2 Egg laying chickens

Egg laying chickens farming is another sector of special importance in Kosovo. Its potential lies in the broad base of domestic consumption of eggs and the inability to meet domestic needs by domestic production. Among the main problems identified which hinder the development of the poultry sector are farm sizes, technological modernization, and increased food safety standards.²⁷

For this purpose, from 2014 to 2019, a total of about 2.5 million Euros were distributed in direct payments to support farmers in order to intensify active production. Moreover, since 2016, the value of subsidies has continuously increased and was divided into two categories: subsidies for farms with 2 thousand to 10 thousand egg laying chickens with 0.50 Euros per head, farms with over 10 thousand egg laying chickens benefited 0.50 (for 10 thousand chickens) and 0.40 Euros per head for the rest.

²⁷ Ibid.

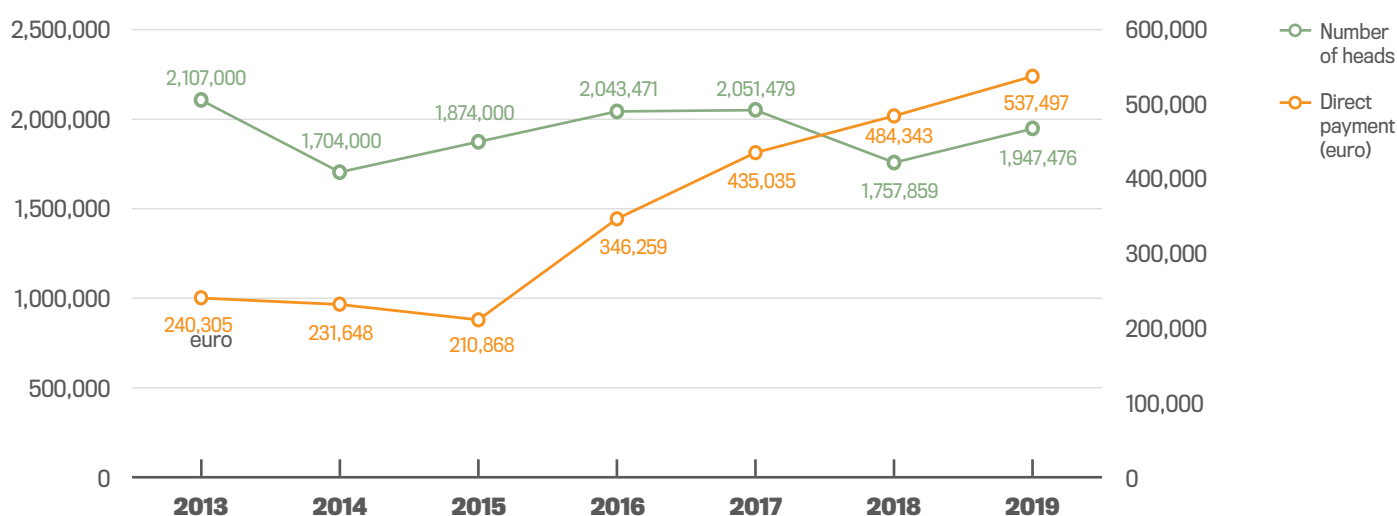
Until 2019, the number of chickens in active production was estimated to be about 1.9 million, or about 190 thousand more than in 2018. However, even in this sector, despite the continuous support provided to production, which from 2013 to 2019 increased by 124 percent, the number of chickens decreased by 8 percent. The size of farms does not seem to have improved either, since in 2013, the average number of heads subsidized per beneficiary was 9,800, while in 2019, it was 1,441.

Table 13. Performance indicators of direct payments in egg laying chickens industry, for the years 2013-2019

Egg laying chicken	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2013
Number of chicken	2,107,000	1,704,000	1,874,000	2,043,471	2,051,479	1,728,000	1,947,476	-8%
Direct payments	240,305	231,648	210,868	346,259	435,035	484,343	537,497	124%
Number of heads paid for	567,996	526,966	466,064	783,531	960,955	1,023,671	1,181,829	108%
Payment per head	0.5/0.4/0.3	0.50/0.4 0/0.30	0.50/0.40	0.50/0.40	0.50/0.40	0.50/0.40	0.50/0.40	
No of beneficiaries	58	59	57	78	80	81	82	41%

Source: Green Report 2016-2020 of the Ministry of Agriculture, Forestry and Rural Development

Figure 9. Trends in numbers of heads and direct payments during 2013-2019



4.3 Bee hives

Bee keeping (growth and cultivation) is important for agricultural production. The demand for the consumption of bee honey in Kosovo is considered to be high. In 2019, honey production in Kosovo was about 2,198 tons, meeting 91 percent of consumption needs, while the rest of consumption (229 tons) was covered by imports. A rather symbolic mass of 75 kg was exported to Albania.²⁸

Subsidies for beekeeping began in 2012, and until 2016, 10 Euros were paid per bee colony. From 2016 to 2019, subsidies increased to 15 Euros per hive. Beneficiaries, among others, are required to breed at least 30 bee colonies (hives), while farmers certified for organic honey production are subsidized in the amount of 20 Euros per hive.²⁹

²⁸ Agricultural Development Agency. Green Report 2020. Source: <https://bit.ly/3vORXKy>

²⁹ MAFRD, Direct payments Program, 2019. Source: <https://bit.ly/3vWOYz4>

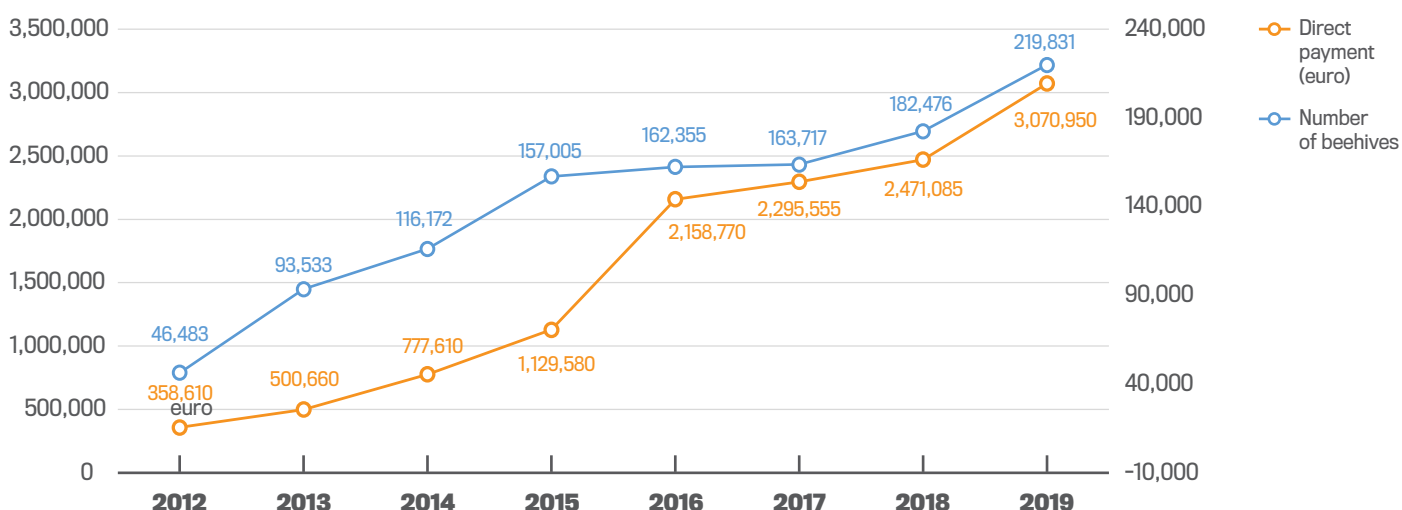
From 2012 to 2019, the amount of direct payments allocated to support beekeeping production was over 12.7 million Euros. These payments marked increases from year to year. However, unlike other agricultural crops, with the increase in direct payments, the number of beehives also increased. The percentage increase in direct payments was higher than the percentage increase in the number of beehives.

Table 14. Performance indicators of direct payments in beekeeping industry, for the years 2012-2019

	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Bee hives	46,483	93,533	116,172	157,005	162,355	163,717	182,476	219,831	373%
Direct payments	358,610	500,660	777,610	1,129,580	2,158,770	2,295,555	2,471,085	3,070,950	756%
Number of beehives paid for	35,861	50,066	77,761	112,958	143,918	153,037	164,739	204,730	471%
Payment per hive	10	10	10	10	15	15	15	15	50%
No. Beneficiaries	779	985	1394	1,918	2,353	2,467	2,764	3,238	316%

Source: Green Report 2016-2020 of the Ministry of Agriculture, Forestry and Rural Development

Figure 10. Trends in numbers of beehives and direct payments during 2012-2019



4.4 Sheep and goats

Sheep and goats are livestock animals of great importance in food production. Sheep and goat milk is used for human consumption and is identified as having high nutritional values. Compared to their weight, goats provide more milk than any other animal. The amount of goat milk ranges from 1.8 to 2.7 liters of milk per day. In addition to food production, sheep and goats are also of great economic importance. The nutrients obtained are further transformed into other valuable products, such as meat, wool, leather, fur, manure, and others.

The number of sheep and goats in Kosovo is about 216,299 heads. Subsidies began in 2010, and until 2014, 10 Euros were paid per head, while between 2015 to 2019, subsidies increased to 15 Euros per head. This measure was aimed at increasing the number of heads and consequently increasing the production. Applicant farmers are required to breed at least 30 sheep and at least 20 dairy goats in active milk production and their animals must be registered (breeding animals).

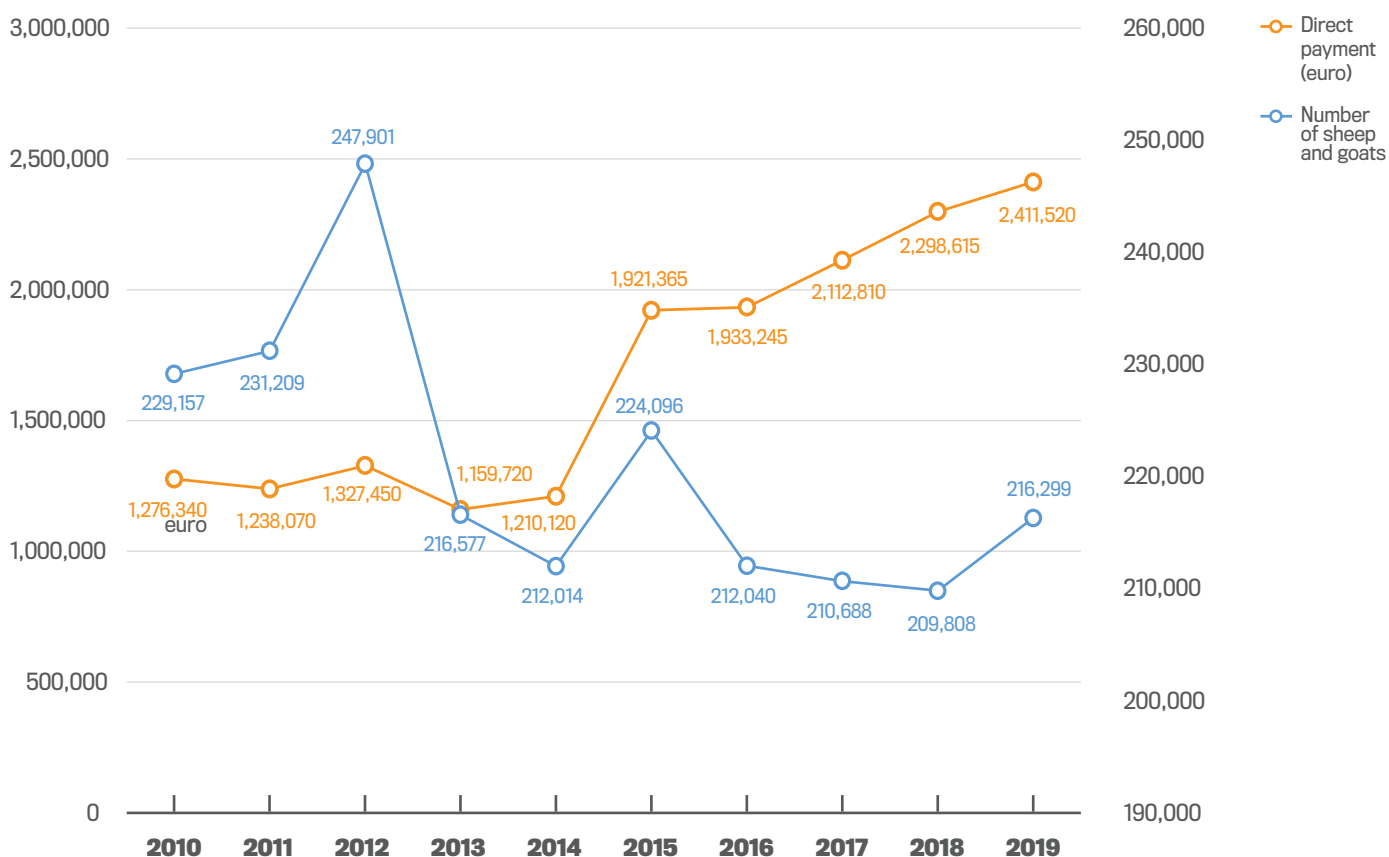
By 2019, a total of 16.89 million Euros were allocated to farmers in this sector. Subsidies for this category have marked a continuous increase. From 2010 to 2019, direct payments increased by close to 89 percent. On the other hand, the number of sheep and goats was 216,299 or about 13 thousand less than in 2010.

Table 15. Performance indicators of direct payments in the category of sheep and goats, 2010-2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Difference 2019/2012
Stock of sheep and goats	229,157	231,209	247,901	216,577	212,014	224,096	212,040	210,688	209,808	216,299	-6%
Number of beneficiaries	1,559	1,343	1,449	1,252	1,295	1,287	1,273	1,334	1,378	1,355	-13%
Number of heads paid for	127,634	123,807	132,745	115,972	121,012	128,091	128,883	140,854	153,241	160,768	26%
Payment per head	10	10	10	10	10	15	15	15	15	15	50%
Direct payments	1,276,340	1,238,070	1,327,450	1,159,720	1,210,120	1,921,365	1,933,245	2,112,810	2,298,615	2,411,520	89%

Source: Green Report 2016-2020 of the Ministry of Agriculture, Forestry and Rural Development

Figure 11. Trends in numbers of sheep and goats, and direct payments during 2010-2019



5. Conclusion

Agriculture plays an important role in improving the trade balance and the economic development of the country. However, in Kosovo, this sector has yet to achieve sufficient development to be competitive with imported products, especially food products.

The Ministry of Agriculture, Forestry and Rural Development has found that among the main shortcomings that hinder the development of agriculture are small farm structure, high level of land fragmentation, and lack of investment in physical assets of farms or production capacity. As a result, this institution has developed its support policies aiming to tackle these problems.

One of the main support programs that aims to address the structural problem of farms is direct payments (subsidies).

Between 2015 and 2019, the Ministry of Agriculture, Forestry and Rural Development distributed about 134.7 million Euros in direct payments to sectors of grains, vineyards, livestock and poultry.³⁰ However based on the data presented above, almost in all crops, productivity, planted areas and yields in 2019 do not seem to have changed much compared to the period before the introduction of such supporting policies. In cases where there is an increase in productivity or yield, such increase is lower compared to the amounts of payments dedicated to the pertinent sector. The distribution of direct payments has continued, and in some cases increased, despite the lack of achieving the expected outcomes. The distribution of funds may have continued due to that MAFRD has not made any systematic assessment of the impact of support policies since their introduction.

The lack of progress in agricultural development, despite high financial support, calls into question the effectiveness of agricultural policies introduced over ten years ago or the way those funds were distributed. According to the National Audit Office, the management of the agricultural sector displays major shortcomings. Despite the programs and amounts allocated, with about 48 million Euros allocated every year, the expected outcomes have not been achieved. In addition, in February 2021, a court proceeding was initiated against several officials of the Agricultural Development Agency, on the suspicion of abusing the distribution of direct payments.³¹ All these developments require an immediate review of agricultural programs and their implementation.

Given the potential of the agricultural sector in the economic development of the country, and the lack of results ten years after the introduction of support for this sector, the GAP Institute recommends:

- A detailed assessment of whether the absence of achieving the expected outcomes is due to inadequate agricultural policies or improper management of funds.
- Reviewing the possibility of enhancing existing support policy programs in cases of failure in yielding the expected results.
- Each support policy program should have clear indicators of measuring its success.
- Operationalizing the department for monitoring and evaluating the effectiveness of the measures based on the set indicators.
- Carrying out regular review and evaluation of agricultural policies.

30 MAFRD, Kosovo Agriculture in numbers, 2020. Source: <https://bit.ly/33xwLfb>

31 Koha Ditore newspaper. Source: <https://bit.ly/2PKQowv>



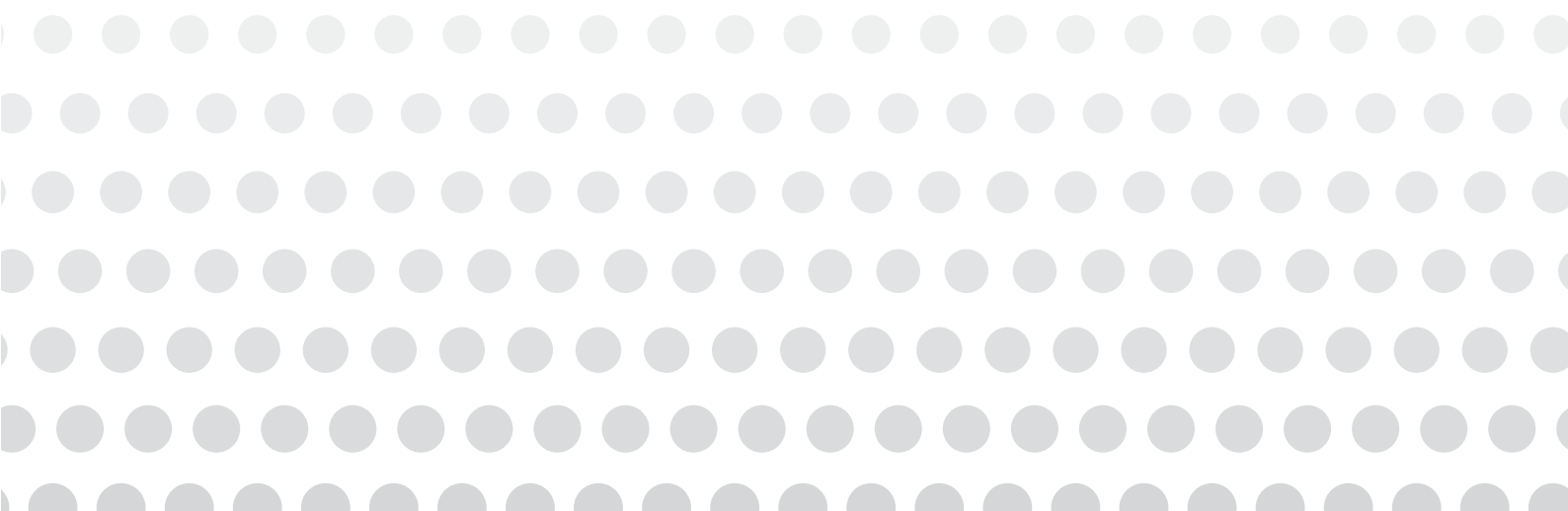
GAP Institute is a Think Tank established in October 2007 in Kosovo. GAP's main goal is to attract professionals to create an environment of professional development and research, as seen in similar institutions in Western countries. This also provides Kosovars with opportunities to research, develop and implement projects in order to advance the Kosovo society. Priority for this Institute is the mobilization of professionals to address the country's economic, political and social challenges. GAP's main goals are to fill the gaps between government and citizens, and between problems and solutions.

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