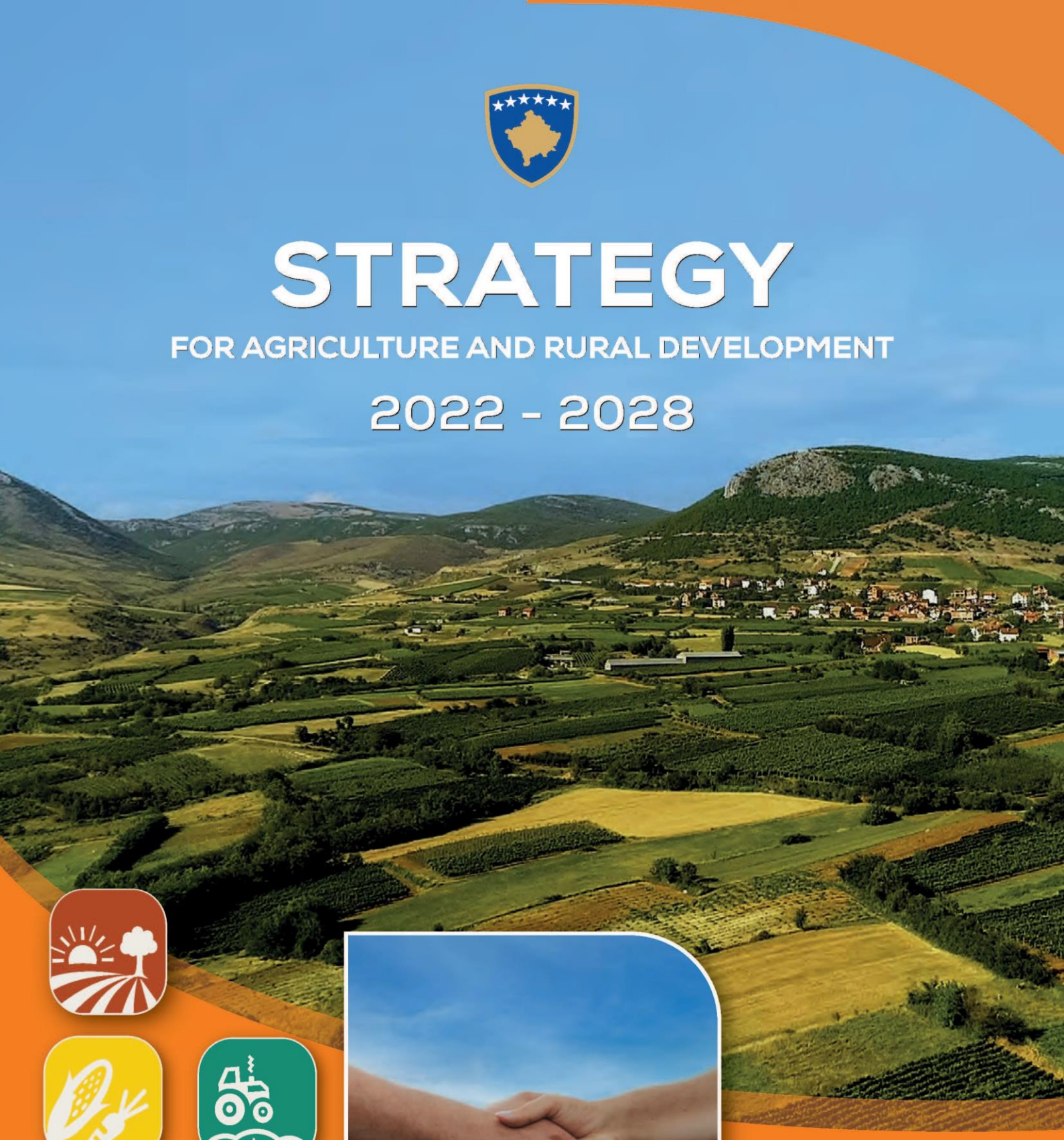
STRATEGY

FOR AGRICULTURE AND RURAL DEVELOPMENT

2022 - 2028



Republika e Kosovës Republika
Kosova - Republic of Kosovo
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Ministria e Bujqësisë, Pylltarisë dhe Zhvillimit Rural
Ministarstvo Poljoprivrede, Šumarstva i Ruralnog Razvoja
Ministry of Agriculture, Forestry and Rural Development

STRATEGY FOR AGRICULTURE AND RURAL DEVELOPMENT 2022 - 2028

Prishtinë, December 2021

Acronyms and Abbreviations

ADA	Agricultural Development Agency
ARDP	Agriculture and Rural Development Program
KAS	Kosovo Agency of Statistics
CAP	Common Agricultural Policies
DP	Direct Payments
EC	European Commission
EU	European Union
EUD	European Union Delegation
FADN	Farm Accountancy Data Network
FAO	Food and Agriculture Organization of the United Nations
FVA	Food and Veterinary Agency
HACCP	Hazard Analysis and Critical Control Points
IPA	Instrument for Pre-Accession Assistance
IPARD	Instrument for Pre-Accession Assistance for Rural Development
MA	Managing Authority
MAFRD	Ministry of Agriculture, Forestry and Rural Development
MAP	Medicinal and Aromatic Plants
NGO	Non-Governmental Organization
NTFP	Non-timber forest products
SWOT	Strengths, Weaknesses, Opportunities, Threats
NUTS	Nomenclature of Territorial Units for Statistics
LAU	Local Administrative Units
SPO	Strategic Planning Office
SDG	Sustainable Development Goals
SAA	Stabilization-Association Agreement
WUA	Water user association
IADK	Initiative for the development of Kosovo's agriculture
GIZ	German Society for International Cooperation
GLV	Local action groups
GAEC	Good Agricultural-Environmental Conditions

Definations

Farm resilience	Means the capacity of farmers to continue farming in the event of a decline in short-term farm incomes, whether due to low production, low prices, or high costs as a result of economic or natural crises;
Digital agriculture	Digital agriculture is the use of digital technology to integrate agricultural production from field to consumer. These technologies can provide the agricultural industry with the tools and information to make more informed decisions and improve productivity;
Ecosystem services	Are diverse systems for humans provided by the natural environment and healthy ecosystems. Such systems include, for example, farming, forest, pasture, and aquatic ecosystems;
Coupled support	Means the support to the farm income related to production, either paid per ton in the case of cereals or per animal head;
Decoupled support	means supporting the income of the farm that is not related to production, which means payment is made per ha (regardless of the level of production or even whether the land is cultivated or not) and the number of animals owned by the farmer;
Farmland birds' index	It is an indicator of the biodiversity-related impact associated with agricultural land considering birds' wealth as an indicator of agricultural intensity. Birds are associated with the use of pesticides through insects and with landscape features such as isolated trees or groups of trees, and studies show that intensive agriculture has a significant impact on reducing the number and types of birds associated with agricultural land;
Farm Advisory Services	FAS means farm advisory service explaining how farmers comply with cross- compliance (mandatory in every EU member state);
High-value pasture (HNVG)	Pastures of high natural value are considered all meadows (both meadows and pastures) under extensive management, which means that they are not chemically fertilized, widely grazed (up to 2 livestock units per ha), and mowed late (giving the possibility for plants to produce seeds);
IACS – Integrated Administration and Control System	It is the IT system used to administer all payment requests of farmers, including the conclusions of administrative and on-the-spot checks, applied sanctions, and payment authorization, up to registered and certified payment;
LAG–Local Action Groups	Are private-public associations in rural areas and small towns (private partners representing more than 50% of the total number of members) aiming at the development and implementation of local development strategies, taking into account local needs and opportunities. EU Common Agricultural Policy requires that at least 5% of rural development funds be implemented through LAGs;
LPIS – Land Parcels Identification System	It is the IT system that includes a digitized map of agricultural land (developed based on orthophotos) at the level of at least physical blocks, including all agricultural parcels continuously under the same type of use. (fields, permanent pastures, orchards, or vineyards);
Rural Network	It is an umbrella of the most important rural actors, such as farmers' associations, representatives of the business community, NGOs, representatives of municipalities, and other local authorities, with the role of representing the interest of their members in the preparation and implementation of strategies and programs, as well as in disseminating information to their members;

Short supply chain	The relationship between a manufacturer and the market includes a maximum of one trader. This concept aims to encourage the consumption of local products, thus promoting local communities and reducing the environmental impact of agri-food chains;

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1. EXECUTIVE SUMMARY

Kosovo is a potential candidate country for membership in the European Union. With the signing of the Stabilization and Association Agreement, it aims at making further steps toward EU integration. The country is gradually aligning its agriculture and rural development policies with the EU's Common Agricultural Policy (CAP) for the agro-rural sector to compete in the region and the EU.

Even though Kosovo has high-quality agricultural land, land fragmentation, old and insufficient agricultural equipment, and machinery, poor rural infrastructure (i.e., irrigation systems, agricultural roads, etc.), expensive inputs, and difficult access to finance are resulting in lower productivity per annual work unit in agriculture compared to the EU and neighboring countries.
Dominated by small non-modernized farms and open competition from EU countries and the region, the low competitiveness of agriculture in Kosovo **is directly reflected in an open trade balance, especially with EU countries**.

The National Agriculture and Rural Development Strategy 2022-2028 has the following goals:

- Providing the Government of Kosovo and, in particular, the responsible Ministry for Agriculture, Forestry, and Rural Development and stakeholders (farmers, their associations, manufacturing, and processing groups, as well as rural residents) with a multi-year reference point, a Strategy, and tool for agricultural development and Kosovo rural areas.
- To establish a basis for drafting operations programs at the lowest hierarchical level, in particular, the Agriculture and Rural Development Program and also a reference point for the EU and the Instrument for Pre-Accession Assistance for Agriculture and Rural Development (IPARD), and other donors supporting the Agriculture and Rural Development Sector.

Our mission is to transform agro-rural economies by making them inclusive, productive, resilient, sustainable, and competitive in the domestic and foreign markets.

The ARDS 2022-2028 vision is the development of a competitive and innovative agri-rural sector based on modern knowledge, technology, and standards, offering high-quality products in the domestic market, the region, and the EU, as well as sustainable development of natural resources and the environment, providing economic activities and employment opportunities, social inclusion and quality of life for residents in rural areas.

The strategic and specific objectives of the Agriculture and Rural Development Strategy are defined through an analysis of the problems and their causes.

Strategic Objective 1: Increasing the competitiveness of the agri-food sector and improving the efficiency and sustainability of farm production.

***Specific Objective1.1*:** Supporting sustainable farm revenues and resilience to increasing food safety.
Specific Objective1.2: Increasing competitiveness and improving market orientation, including a greater focus on research, innovation, technology, and digitalization
***Specific Objective 1.3*:** Improving the farmers' position in the value chain

Strategic Objective 2: Sustainable management of natural resources (land, forests, and water)

Specific Objectives 2.1 Contributing to mitigating and adapting to climate changes as well as renewable energy
Specific Objectives 2.2 Promoting sustainable and efficient land, water, and air management
Specific objectives 2.3 Biodiversity protection, enhanced ecosystem services, and conservation of habitats and landscapes

Strategic Objective 3: Supporting businesses in rural areas and enhancing employment and social infrastructure

***Specific Objective 3.1*:** Promoting employment, growth, social inclusion, and local development in rural areas, including bio-economy and sustainable forestry development

Specific Objective3.2: Improving society's requirements for food and health, including safe, nutritious, and sustainable food, reducing food waste, and animal welfare

Specific Objective 3.4: Promoting gender equality, including women's participation in agriculture and social inclusion of vulnerable communities and groups

Strategic objective 4: Comprehensive institutional and sector reform to create efficient public services

Specific objective 4.1 Full re-organization and functionalizing of ADA as an IPARD Agency

Specific objective 4.2 achieving entrustment for budget management and implementation of IPARD III program measures

Specific objective 4.3: Digitalization of the sector and transfer of knowledge

The Strategy focuses on specific national issues that will be addressed by types of CAP-like interventions supplementing it with other land and irrigation policy measures. The Strategy has been prepared to consider the environmental and climatic actions included in the Green Agreement, namely in the commitments of the Green Agenda of the Western Balkans. The Strategy covers a real, albeit ambitious combination of support schemes for farmers and other rural stakeholders and institutional reforms. Interventions are of the type under Pillar I (subsidies), Pillar II (rural development grants) of CAP, capital or infrastructure projects, and institutional reforms aiming at further operationalize the Ministry towards a more efficient public administration. All public interventions for 2021 - 2028 should be implemented if included in this document. The Government will implement this Strategy mainly through the National Agriculture and Rural Development Program, capital projects, IPA III, and the contribution of other donors. At the same time, MAFRD will be responsible for consolidating public administration through appropriate reforms. By the end of 2028, the agri-food sector, the economy and infrastructure of rural areas and the administrative structure of the Ministry should demonstrate steady progress, which remains to be monitored and assessed through a series of performance indicators.

The Ministry proposes finalizing the Action Plan of the Strategy for Agriculture and Rural Development 2022-2028 following the preparation of the Agriculture and Rural Development Program, which is in the final stage, to harmonize and have a coherence of actions.

PBZHR is expected to be finalized in February 2022, and at the same time the Action Plan of SBZHR 2022-2028

2. INTRODUCTION

Given the importance and weight of agriculture in the gross domestic product and the sector's high potential to further develop and generate income and jobs, the agriculture and rural development policy is undoubtedly an essential element of the country's general development policy.

Agriculture is one of the essential activities in Kosovo, and the potential for agricultural development is untapped. Comparing the indicators of productivity and profitability, farm size, outdated technology, production intensity, export rate, and other parameters, it is clear that Kosovo has lagged in agricultural development compared to other less developed countries, and the largest gap is with the European Union. The process of membership of the Republic of Kosovo in the EU requires harmonizing regulations and standards in agriculture with the regulations and standards in the European Union. The Agriculture and Rural Development Strategy should contribute to better use of resources in agriculture and, at the same time, achieve a higher level of agricultural competitiveness. The Agriculture and Rural Development Strategy will also provide a way to adapt to European Union regulations and align with the European Union Common Agricultural Policy.

The Agriculture and Rural Development Strategy for 2022-2028 is a step towards aligning with the EU Common Agricultural Policy (CAP).

The Agriculture and Rural Development Strategy 2022-2028 is related to the implementation of the Government Program 2021-25, and both documents aim at developing the agri-rural sector and, in particular, address increasing competition in the agri-food sector, sustainable management of natural resources, business support in rural development, food safety and administration reforms.

Of the 17 Sustainable Development Goals (SDGs), Agenda 2030, almost all of them relate to the Agriculture and Rural Development Strategy objectives: eradicating poverty, achieving food safety, improving nutrition and promoting sustainable agriculture, ensuring healthy living, and promoting well-being for all ages, achieving gender equality and empowering women and girls, promoting sustainable, inclusive and comprehensive economic growth, full and productive employment, and decent work are just some of the identified problems addressed by this Strategy, and this is because, in addition to agricultural production, it also addresses the socio-economic issues of rural areas.

Kosovo Economic Reform Program 2021-2023 considers the agricultural sector one of the "key priorities" addressed in reform measure no. 3: **Structural changes in the agricultural sector**: The primary purpose of this measure is to create genuine policies in the agricultural sector to increase productivity and agri-rural restructuring, develop the agri-food sector through improving competitiveness, innovation, and productivity growth, and expanding and rehabilitating the irrigation system

Meanwhile, the National Program for the Implementation of the Stabilization and Association Agreement envisages concrete measures to improve the implementation of agriculture and rural development policy, including strengthening the Operating Structure involved in the preparation, management, and control of this Policy, as well as structuring the agri-rural sector.

Sofia Agreement - Green Agenda for the Western Balkans calls for a long-term agricultural sector transformation, minimizing its negative environmental and climatic impact and maintaining affordable and healthy food for Kosovo's citizens and export markets. This transformation will inevitably affect the socio-economic model of rural areas in Kosovo, as agriculture plays a dominant role in rural economies and livelihoods. In parallel with the changes in the agri-food sector, it is crucial to ensure a sustainable transformation of rural areas, increasing the attractiveness of living in these areas.

The future Agriculture and Rural Development Strategy 2022-2028 addresses a series of environmental and climatic actions included in the Green Agreement, the 'greening' of the agricultural sector, i.e., reducing ecological impacts by guaranteeing food safety.

3. METHODOLOGY

The Agriculture and Rural Development Strategy is the first strategic document prepared by the Minister of Agriculture, Forestry, and Rural Development. This document aligns with the European Union's strategic policies on the Common Agricultural Policy (CAP) 2022 - 2028.

To ensure an integrated approach and close inter-ministerial coordination, the Government of Kosovo has established a Steering Group to prepare the Agriculture and Rural Development Strategy and Program 2022 - 2028. The SG consisted of representatives of all departments of the Ministry, the Agricultural Institute of Pejë, the Agricultural Development Agency, the Forestry Agency, and the Food and Veterinary Agency.

From the line Ministry and the Office of the Prime Minister in the group participated:

- OPM/Office of Strategic Planning
- Ministry of Finance, Labor and Transfers
- Ministry of Environment, Spatial Planning, and Infrastructure
- Ministry of Industry, Entrepreneurship, and Trade
- Faculty of Agriculture and Veterinary

Observer participants were:

- EUO representatives in Kosovo
- FAO representative and
- ARDP project representative

The Steering Group had in-depth discussions and took strategic decisions during the preparation of the Agriculture and Rural Development Program and Strategy 2022-28.

Six groups (from external experts and civil society, NGOs in the sector of Agriculture and Rural Development, which have contributed to the development of the SWOT analysis, the development of general and specific objectives, and the identification of needs) have engaged in discussing technical issues. The Rural Development Policy Department/Managing Authority is responsible for drafting and coordinating activities related to the preparation of this document.

Additionally, this Strategy precedes an independent sectoral analysis for the central agriculture and rural development sectors, which the EU Office in Kosovo funded:

- Plant/cereals, fruits and vegetable sector production, processing, and marketing throughout the chain
- Livestock sector (meat, milk, eggs) - production, processing, and trade throughout the chain and
- Rural diversification and rural economic development, including marketing throughout the chain, achievement of relevant national and EU standards, and alignment to the EU Green Agreement.

Since ARDS has cross-sectoral activity, many documents produced by the Ministries related to the Agriculture and Rural Development sector have been elaborated and analyzed.

4. GENERAL DESCRIPTION OF THE COUNTRY AND RURAL AREAS

The Republic of Kosovo has an area of 10,905.25 km^2. It is located in southeastern Europe, bordered by Albania in the southwest, Montenegro in the northwest, Serbia in the northeast, and Macedonia in the south.

The territory stretches within latitudes 41° 51' and 43° 16' N and longitudes 19°59' and 21°47' E. Different altitudes characterize the territory of the Republic of Kosovo. The lowest point of Kosovo is located in the valley of Drini i Bardhë river, on the border with Albania, and reaches an altitude of 270 m above sea level. The highest peak is in the west of Kosovo, in Gjeravica - 2,656 m.

Kosovo is divided into river basins in hydrography: Drini i Bardhë, Ibri, Morava e Binçës and Lepenci. Kosovo rivers flow into three sea catchments: the Black Sea, the Adriatic Sea, and the Aegean Sea.

The climate of the Republic of Kosovo is primarily continental, resulting in warm summers and cold winters, with the Mediterranean and continental influences (average temperature within the country fluctuates from + 30 °C in summer to – 10 °C in winter). However, due to uneven rises in some parts of the country, there are changes in temperature and precipitation distribution.

4.1 Total area and use of agricultural land

The total land area in Kosovo can be grouped into the following categories: agricultural land, which participates for 38.53%, forests and forest land, 44.11%, urban land, 4.40%, and other 12.96%.

According to the agricultural survey data, the utilized area of agricultural land does not have major changes and has been an approximate trend of utilization for this period of time. In 2016, the utilized area of agricultural land was a total of 415,826 ha, while in 2017 a slight increase was observed, continuing with growth in 2018, where this area was 418,582 ha. The increase in the use of agricultural land continued in 2019 and in this case the area reached 420,141 ha, while in 2020 it was 420,210 ha, similar to 2019.

The largest area of utilized land is occupied by meadows and pastures (including common land) which constitute 51.7% of the total utilized area of agricultural land and it is observed that there has been no significant changes. In 2020, this area was 217,102 ha, which represents a decrease of 0.4% compared to 2019.

After meadows and pastures, the largest area, as in other years, also in 2020 is occupied by the category of arable land - fields, with a participation of 44.8%, which represents the area of 188,372 ha, which also includes the area of vegetables in the field open (first culture) and greenhouse (first culture).

Table 1- Land use - total agricultural land area, forests, urban land, and other, in ha

Years	2016	2017	2018	2019	2020	Share (%) - 2020
Total area	1,090,800	1,090,500	1,090,500	1,090,500	1,090,500	**100%**
Agricultural land, of which:	**415,826**	**416,072**	**418,582**	**420,141**	**420,210**	38.53 %
Arable land - fields	*187,223*	*186,954*	*188,359*	*188,365*	*188,372*	***44.8 %***
Of which with vegetables in the open field (first crop)	*7,864*	*8,033*	*7,818*	*8,319*	*8,435*	-
Of which with greenhouses vegetables (first Crop)	*457*	*467*	*468*	*518*	*547*	-
Gardens	*6364*	*7,135*	*8,558*	*10,115*	*10,029*	***0.27 %***
Tree plantations*	*6,364*	*7,135*	*8.558*	*10.115*	*10.029*	***2.39 %***
Vineyard Plantations	*3,112*	*3,199*	*3,272*	*3,367*	*3,437*	***0.82 %***
Plant nursery	*196*	*159*	*109*	*111*	*137*	***0.03 %***
Meadows and pastures (including common land)	218,808	218,314	218,152	217,932	217,102	**51.67%**
Forests and forest land	**481,000**	**481,000**	**481,000**	**481,000**	**481,000**	**44.11 %**
Urban land	**48,000**	**48,000**	**48,000**	**48,000**	**48,000**	**4.40 %**
Others	**145,103**	**144,540**	**142,047**	**140,488**	**141,291**	**12.96 %**

Source: Statistical Yearbook of the Republic of Kosovo, 2021; National Forest Inventory 2012 (total forest land and urban land)*

Clarification Data for tree plantations are revised (including scattered tree bodies and differs from the Green Report data for the period '16 -'20)*

4.2 Urban-rural classification (including the definition of rural area and total area)

According to the laws, Kosovo's administrative division holds 38 municipalities and 1,469 settlements. Unofficially, to enable regional economic development, municipalities were economically organized into seven economic regions (corresponding to NUTS 3).

Table 2 - Kosovo administrative division

Region (corresponding to NUTS 3) *	Commune (LAU 1)	Number of settlements (LAU 2)	Total area (km2)	Region (corresponding to NUTS 3) *
Prishtinë	Prishtine, Lipjan, Podujeve, Obiliq, F.Kosove, Graqanice, Gllogoc, Novoberde	296	2,439	497,431
Pejë	Peje, Deqan, Istog, Kline, Junik,	223	1,631	229,134
Prizren	Prizren, Dragash, Mamushe, Suhareke,	154	1,025	292,597
Gjilan	Gjilan, Kamenice, Viti, Partesh, Ranillug, Kllokot	166	1,209	161,144
Ferizaj	Ferizaj, Shtime, Kaqanik,Shterpce, Hani I Elezit	126	1,030	185,119
Mitrovicë	Mitrovice, Mitrovica e Veriut, Leposaviq, Skenderaj, Vushtrri, Zubin Potok, Zveqan	336	2,077	224,121
Gjakovë	Gjakove, Malisheve, Rahovec	168	1,224	208,642
Gjithsej	**38**	**1,469**	**10,635**	**1,798,188**

** NUTS -3 regions generally have a population of 150,000 to 800,000 inhabitants - Eurostat*

The most widespread method to define rural areas is the OECD method, according to which a site is considered rural if its population density is below 150 inhabitants per km². A community is deemed urban if the population density is over 150 inhabitants per km².

As per the Kosovo Agency of Statistics (KAS) for the Kosovo 2011 Population and Housing Census, the rural areas are defined based on the level of settlements, characterized by low population density and usually where most of the land is agricultural compared to the surrounding area. In the 2011 Kosovo Census, the place of residence was defined as rural by an administrative decision of the respective municipality. Using this method of distinction (boundary delimitation), KAS has recognized 1,028,963 ha (94.3%) as rural areas, where 62.0% of the population is located (or 1,078,239 inhabitants, according to the 2011 Census).

The size of settlements is used as an indicator of distinction to define rural areas in Kosovo from a socio-economic perspective and, at the same time to use an approach that is in line with the current administrative situation.

Following this decision, settlements with over 30,000 inhabitants, i.e., the cities of Prishtinë, Prizren, Gjilan, Pejë, Mitrovicë, Ferizaj, and Gjakovë, are classified as urban areas. At the same time, Kosovo's rest territory is considered rural for ARDP 2014-2020 purposes. According to this definition, 98.8% (10,787.94 km²) of the territory is deemed to be rural and is home to 74.1% (1,286,554 inhabitants) of the population (see Table 3).

Mountainous areas

According to EU practices, two parameters are considered for the definition of mountain areas: altitude (type A) and altitude and slope (type B). We have selected Cadastral zones as basic territorial units for their easier comparison to demarcated rural areas. As another step, the average height is calculated for each cadastral area. "Type A" mountain areas are defined as cadastral zones with an average altitude above 700m, and all settlements located within these areas are defined as mountain areas.

Mountain areas affected by slope and altitude are defined as areas with an average height of over 600m and slope above 10% to more than 50% of the cadastral zone area. Such areas are defined as "Type B" mountain areas.

4.3 Demographic statistics

Kosovo has a population of 1,798,188 million inhabitants, one of the youngest demographic profiles in Europe, with about 50% of the people under the age of 25. 28% of the population is under 15, while almost two-thirds (65%) are of working age (age15-64). Residents over 65 represent 7% of the total population. In contrast, this elderly group makes up 16% of the people in Europe.1

Table 3 - Usually resident population and private households

Total population	**1,798,188**
Urban population (according to the KAS definition)	661,586
Rural population (according to KAS definition)	1,078,239
Population under 6	179,648
% of the population at the age of 6	*10.3%*
Population over 65	116,785
% of the population over 65	*6.7%*
Population aged 75 years	38,922
% of the population over 75	*2.2%*
Number of private households	297,090
Average members per private household	5.9

Source: KAS Population, Household and Housing Census in Kosovo 2011, edition 9n 2020

4.4 Key indicators of economic development and contribution of agriculture, forestry, and fishing

Gross Domestic Product (GDP) is the most important economic indicator in the National Accounts System that represents the performance of a country's economy over some time.

Based on the results of the GDP survey according to economic activities, it follows that the GDP at current prices in 2020 was €6,771.6 million, while in 2019 it was €7,056.2 million. GDP per capita in 2020 was €3,772, while in 2019 it was €3,959.

The contribution of agriculture to GDP has declined from 8.2% in 2016 to 6.5% in 2018, followed by a significant increase of 7.2% in 2019, and stabilization at 7.4% during 2020.

With a participation of 7.4% in GDP during 2020, the agriculture sector is ranked fourth in the economy in general.

[1] *KAS: Population, Household and Housing Census in Kosovo 2011, 2012 edition*

Table 4: Key indicators of economic development and contribution of agriculture, forestry and fishing

Year	2015	2016	2017	2018	2019	2020	Variation 2015 - 2020
Gross Domestic Product (in '000)	5,674,422	6,037,273	6,356,456	6,671,522	7,056,172	6,771,601	+22,33%
GDP per capita (€)	3,202	3,386	3,534	3,715	3,959	3,772	+21,64%
GDP (Agric, hunting, forestry and fishing /'000 (€	435,635	493,337	470,932	435,728	510,773	498,526	-9,07%
Agricult. Contrib. to GDP (%)	7.7	8.2	7.4	6.5	7,2	7.4	- 25,24%

Source: ASK - Gross Domestic Product 2015-2020

5. PROBLEM ANALYSIS

5.1 Agriculture and food-processing

5.1.1 Farm viability

The bigger the farm, the higher the income per number of workers. Kosovo's agriculture is characterized by small-scale agriculture. Almost 70% of farms with arable land are up to 2 ha, and more than 60% of arable land is owned by farms with an area of up to 5 ha.

Table 5 - Farms and arable land per size category as share out of the total

Farm size (ha)	Number of farms	Farms per size category as share out of the total	Arable land per category in ha	Arable land per size category as share out of total
0 – 0.5	32,020	**69.71%**	5,929	**60.59%**
0.5 – 1.00	18,355		12,065	
1.00 – 2.00	23,022		30,123	
2.00 – 5.00	24,231	28.72	65,202	
5.00 – 10.00	6,013	1.57%	39,533	21.14%
10.00 – 20.00	1,203		16,013	18.27%
20.00 – 30.00	246		5,146	
More than 30	200		13,016	
Total	105,289	100%	187,026	100%

Source: calculations based on MAFRD data, 2020

The largest part agriculture remains mainly as traditional activity that survives in the absence of other sources of income and without the proper tools for modernization. From the sectoral studies prepared for Kosovo's agricultural sectors in 2021, the level of farm income needed to keep them sustainable and flexible is estimated to be as in the following table

Table 6 - Kosovo`s net added value as compared to some EU countries

Countries	Net added-value (euro) per annual working unit	Kosovo`s net added value as compared to some EU countries
Estonia	17,697	8.07%
Austria	28,481	5.01%
Hungary	23,465	6.09%
Italy	34,198	4.18%
Bulgaria	14,667	9.74%
Poland	7,269	19.65%
Slovenia	6,336	22.54%
Croatia	8,117	17.59%
Romania	9,248	15.44%
Kosovo	**1,428**	-

Source: calculations based on FADN – European Commission data and FADN, DAESB – MAFRD data, 2020

Table 7 - Viability thresholds

Sector	Thresholds
1. Milking cow	15 cows
2. Sheep	130 sheep
3. Goat	130 goats
4. Beef	20 beef
5. Laying hens	5 000 laying hens
6. Broiler	5 000 broilers
Processing	
1. Milk Processing	2 000 l/day
2. Beef(cattle) slaughterhouses	10 beef /day
3. Broiler slaughterhouses	1 000 broiler/day

Source: Livestock Sector Study, 2021

Is difficult to comparisons between agricultural and non-agricultural incomes and not easy to do, but without a minimum income, farms are at risk of continuing their activity and this is likely to encourage emigration, especially of the younger generation.

Nevertheless, this low value should be seen from the perspective of limited local economic alternatives and a low level of direct payments. We should note that this type of income support is essential for Kosovo, as it has relatively recent open trade agreements (CEFTA and with the EU countries) but is not yet modernized competitive agriculture. Direct payments are not accounted for per agricultural land yet, but per crops and animals, covering the most important cultivated crops and breeding systems. However, in terms of cultivated areas and the number of animals with income support from direct payments, we may estimate that the D**irect Payments cover only around 50% of the room with the main crops** (in other words, leaving without support for almost half of the total area). In contrast, in the case of animals, the share is around 75% for milking cows and sheep.

Table 8 – Area receiving direct payments per some crops as compared to total cultivated areas, 2019

Crop	Areas receiving direct payments (ha)	Total cultivated area (ha)	Share of areas under direct payments
Wheat	35,287	80,273	43.96%
Maize	27,483	39,441	69.68%
Barley	488	1,954	24.97%
Rye	196	420	46.67%
Vegetables (without potatoes)	8,295	13,952	59.45%
Orchards	4,142	9,479	43.70%
Vineyards	2,989	3,367	88.77%

Source: calculations based on Green Report 2020 and ADA data

Regarding **the level of direct payments** (e.g., 150 euro per cereals, 300 euro for vegetables, 70 euro per milking cow, 15 euro per sheep or goat), **if compared with the EU, it may be considered very low**. Still, it proved very helpful to the milk quality scheme, which consolidates the farms' incomes and is result-oriented, promoting sector development.
However, it proved to be very helpful to the milk quality scheme, which not only consolidates farm incomes, but is also results-oriented, promoting the development of the sector.

Table 9 – Number of animals receiving direct payments as compared with the total number of animals, 2019

Animals	Number of animals receiving direct payments (heads)	Total number of animals (heads)	Share of animals under direct payments
Milking cows	62,478	80,273	77.83%
Sheep and goats	160,768	216,299	74.33%
Poultry	1,181,829	2,665,262	44.34%
Sows for reproduction	1,405	40,533	3,47%

Source – calculations based on Sector study for livestock, 2021 and the ADA data

Furthermore, Kosovo has designated mountain areas (as areas with natural constraints). Still, there **is no payment scheme to compensate for the loss of income and extra costs due to natural handicaps**. **Compensatory payments are also missing** for agri-environment and local breeds, despite having the potential to ensure a continuation of a long farming tradition that proves resilience in front of natural conditions and many economic and political systems.

Absolute farm resilience for all the farmers is neither realistically possible nor desirable. A smaller workforce in farming implies that agricultural income is shared amongst fewer people, thus raising the amount per person. Higher labor productivity and specialization towards intensive and high- value production are also directly linked with farm income, and Kosovo`s agriculture is just at the beginning of this path. Kosovo will have to release the labor force on its way to modernization, while an essential share of small farms will merge. The challenge is to keep **a good balance between support of traditions and facilitating modernization**; otherwise, the risk of land abandonment remains very high, at least in remote mountain areas, further feeding the migration, primarily through the exodus of the young generation, so the valuable traditions may be lost.

Farm resilience also requires adopting modern agricultural practices focusing on water conservation and soil protection – especially in the low-land for larger farmers. Sustainable agrarian management practices include no-till, strip-till (especially on slopes), crop rotation with forage-legume crops, planting of forest and woodland (including agro-forest belts and woody landscape features), investments in new technologies, training, and advisory activities are currently weakly implemented in Kosovo.

Irrigation is not only serving the purpose of increasing production and farm competitiveness but also securing the farm income in the drought years. **The main risk to farm viability is water availability**, which is expected to decrease in the following years while the summer temperatures increase. *Climate change will affect Kosovo's main water basins differently based on the model forecasts. In years with wetter winters, the average annual value of water available per person may increase for the Drini i Bardhë and Ibër rivers, but less water for the Morava e Binçës river. However, the main concerns are given by the projected increase in temperature in summer (+ 2.5 ° c) and the decrease in precipitation in spring and summer (-10%).*[2] The Master Plan for Irrigation in Kosovo indicates that **only 20,000 ha are currently irrigated out of 280,000 ha with the potential of developing an irrigation system.**

Furthermore, financial viability and resilience may be sustained with **more robust insurance schemes** that should cover the most critical risks in agriculture, such as extreme meteorological events (storms, strong winds, hail, late spring/early autumn freezing, drought, etc.), but yet, Kosovo has poor insurance schemes on the market.

[2] Master Plani për Ujtije në Kosovë, 2020

5.1.2 Competitiveness and market orientation

With a **dominance of unmodernized small farming and open competition** from EU countries in the region, Kosovo`s low agriculture competitiveness is directly **reflected in a widening trade balance, especially with EU countries**. However, it should be noted that the negative trade balance is caused by the increase rate of imports than rate than exports, however, it should be noted that some trade channels are being consolidated.

Table 10 – Trade balance Kosovo vs. all countries, 2015 – 2020

Years	2015	2016	2017	2018	2019	2020
Exports	41.7	45.2	61.3	64	65.5	78
Imports	633.7	658.7	694.5	712.3	759.4	765.3
Trade balance	-592	-613.5	-633.2	-648.3	-693.9	-687.2

Source: calculation based on KAS data

Thus, Kosovo`s agriculture is reorienting **towards the market and higher added-value crops**: the total area for cereals is decreasing, while for vegetables, fodder crops, orchards, and vineyards are increasing.

The main weakness in improving the farms' efficiency is the size; small farms lead to insufficient profit to invest. Kosovo has a high quality of agricultural land (83% of the farming land is in the category 1 - 4, meaning soils with high fertility). An essential investment for small farmers should be acquiring extra agricultural land. While the total sale of agricultural land by KPA from 2005-2020 is 30,810 ha, it means that 7.3% of the usable agricultural land of the country has been transferred to the private sector, which affects the consolidation of the structure and the growth of the farm. Whoever, **without a clear policy for agricultural land protection and enforced controls**, illegal change of land use, associated with unlawful constructions on agricultural land, is an essential threat to reaching the aim of land consolidation. Moreover, it's because of the lack of clear policies and legislation for the sustainable management of agricultural land.

Regarding **crop production, the variation from one year to another is very high, proving that farmers took no significant steps toward modernization** and reducing the high level of agriculture dependency on weather. Except for cereals and fodder crops, the production per ha decreased. Partially, the decrease in output per ha in the case of orchards and vineyards may also be justified by the new plantations, which enter production only gradually.

Table 11 - Crop production during 2015 – 2020

Crop		2015	2016	2017	2018	2019	2020
Cereals	ha	134,886	134,571	120,746	123,869	124,199	124,714
	tones	443,584	562,899	477,880	441,757	459,404	529,112
	t/ha	3.28	4.18	3.95	3.56	3.69	4.24
Vegetables	ha	14,656	17,395	19,643	17,886	18,911	19,243
	tones	246,096	335,467	358,394	265,420	300,557	290,555
	t/ha	16.79	19.28	18.24	14.83	15.89	15.09
Fodder crops	ha	97183	97936	105613	107099	108480	108,436
	tones	317,888	390,707	486,989	480,966	504,406	503,758
	t/ha	3.27	3.98	4.61	4.49	4.64	4.64
Orchards	ha	4,930	5,668	6,422	7,922	9,479	10,265
	tones	44,674	54,836	34,207	53,606	67,294	72,265
	t/ha	9.06	9.67	5.32	6.76	7.09	7.03
Vineyards	ha	3,068	3,117	3,199	3,272	3,367	3,437
	tones	25,422	23,666	15,364	27,322	19,318	26,330

	t/ha	8.28	7.59	4.80	8.35	5.73	7.66

The proper use of inputs is directly linked with the level of production. **The story of fertilizers and pesticides is insufficient, and their use is inadequate – is concluded by the sector study on crops prepared for Kosovo in 2021. It means there is plenty of space to increase the efficiency of fertilizers and pesticides, but this requires know-how, soil tests, machinery, and training. The quality of the fertilizers and pesticides is considered low, and implementing a state control system to verify the concentration of active substances is missing.**

Manure management is also impoverished; the central gap is a **lack of proper storage**, leading to nutrient leakage and ammonia emissions, thus water and air pollution with nitrogen compounds (instead of retaining as much as possible the nitrogen into the composted manure). **There is no Code of Good Agricultural Practices** promoting good practices for storing and composting the manure and applying organic and chemical fertilizers. For some sectors, the low quality of the planting material (especially in the case of grapes, orchards, soft berries, etc.) is hampering productivity.

On irrigation, the gap between the irrigated areas (20,000 ha) and the potential irrigated areas (280,000 ha) is huge, **indicating that essential investments are required**, starting with feasibility studies for the needed capital investments for the modernization and rehabilitation of the primary irrigation infrastructure. Integrated projects involving Water Users' Associations (WUA) are missing. WUA's are not yet sufficiently knowledgeable, organized, and motivated to manage the irrigation systems properly. These associations should be the most important driving force in modernization and rehabilitation to ensure the sustainability of the investments.

In order to have increased production and productivity, irrigation at the farm level is necessary especially for some sectors (eg, trees and vegetables).

The Master Plan for Irrigation, prepared by the World Bank in 2020, includes valuable recommendations, but still is not yet included in the financing mechanism of the public administration.

Productivity is closely linked also with the level of mechanization. **Weak endowments with machinery and outdated machinery are primary obstacles to increasing labor productivity.** According to the Agricultural Census in the Republic of Kosovo, 2014, only every second agricultural holding owns a tractor; most of the tractors are one axle tractors (87%), and more than 73% of all tractors owned by the agricultural holdings in 2014 were more than 20 years old. It is also worth considering that new machinery will bring new challenges, such as the need for specialized training for the users and services/repair shops. Unfortunately, out of all agricultural inputs, the prices of tractors show the highest increase in 2019 compared with 2015: +19%. For small farms, the costs for acquisition and maintenance of machinery are inaccessible, making **farm structure the biggest obstacle to modernization.**

The price of pesticides slightly increased in the last five years, while that of fertilizers slightly decreased. Still, **the farmers consider them high-priced, hardly affordable, and consequently, their use is under the optimum level**. **Without proper control of the active substances, the quality of the chemical inputs is considered questionable.**

In the case of **livestock, except poultry (with a limited increase), the number of animals has slightly decreased**. As described in the sector study for livestock prepared in 2021, there are numerous reasons for this: the poor genetic potential of used breeds, unmodernized farms, inefficient farm management, and also old farmers involved in traditional breeding not being replaced by the new generation, administrative and logistical barriers for export, etc.

Table 12 - Livestock during 2015 – 2020

Year	2015	2016	2017	2018	2019	2020
Cattle	258,504	264,971	259,729	258,662	257,733	261,389
Sheep and goats	224,096	212,040	210,688	209,808	216,299	241,688
Pigs	44,149	42,309	41,086	40,164	40,533	45,394
Poultry	2,576	2,740	2,811	2,538	2,665	2,782

Source: calculation based on data from Kosovo Agriculture in Numbers, 2021; KAS 2020

Despite having good potential, especially in the case of extensive sheep breeding, the export of live animals and animal products is blocked due to the **weak implemented system of animal disease control. W**ithout solving this administrative issue, the perspective of developing the livestock sector remains locked.

Although the yields are mainly on a slight negative trend, **with the advantage of higher prices on almost all agricultural products, the output in agriculture increased** in 2020 compared with 2015 for both crops and livestock, giving the perspective of a profitable business.

Table 13 – Production of agriculture at current prices

Year	2015	2016	2017	2018	2019	2020
Crop output (mil. euro)	350.17	412.13	402.5	388.3	441	477.4
Livestock (mil. euro)	120.3	160.5	157.4	140.3	167.7	164.2

Source: KAS, Economic Accounts for Agriculture

Consequently, **the private sector is gradually expanding**. The number of new businesses, the workers in registered farms, and the growing income value demonstrate that agriculture is still attractive.

Table 14 – Active businesses in agriculture

Year	2015	2016	2017	2018	2019	2020
Number of active businesses	2,130	2,314	2,398	2,942	2,405	2,780
Number of workers	8,790	10,024	10,449	13,156	12,467	14,996
Incomes (`000)	323,370	360,536	432,301	461,626	499,821	526,980

Source: calculation based on data from Green Report, 2020

This trend may be maintained for the future only with significant investments for restructuring and modernization of the farms, especially for the category of medium farms, with the potential of expanding the business. However, a **clear distinction of what means small, medium, and large farms is missing in Kosovo**, making it difficult for policy formulation and implementation.

Efficient use of the labor force is also a key factor for competitiveness. The total number of employees registered in agriculture, forestry and fishing is about 19,700 people, 15,100 men and 4,500 women[4]. According to the Agriculture Holdings Survey, 2019, the total population working in

[4] Labor Force Survey for Q4 2020, ASK, 2020

agriculture is 270,181, the equivalent of 82,657 AWU. **Farms have limited capacity to transform inputs into added-value outputs** because their net added-value per AWU is very low: **only 1,428 euros**. The most challenging situation concerns to smaller farms, as they "*do not seem able to become scale- efficient and benefit from returns to scale… are trapped in poverty, and the non-farm economy cannot absorb surplus labor from agriculture*."[5]

The Labor Force Survey for Q4, 2020 mentions that 31.8% of the unemployed in Kosovo were young people (aged 15-24 years). **A significant proportion of the young population is unemployed (49.9%), and youth unemployment among females is higher (53.7%) as compared to males (48.0%). Whoever the hopes for modernization stay with young people.** The MAFRD encouraged the young farmers through the grants scoring system.

Table 15 – Share of young farmers as grants beneficiaries

Indicators	2014	2015	2016	2017	2018	2019
Young beneficiaries – all the measures (%)	62.83	69.43	68.00	63.46	n/a	71.49

Source: MAFRD

By increasing the land productivity, intermediate consumption will rise (due to extra costs with energy, fertilizers, pesticides, etc.), increasing the necessity of loans for production. Although the amount of disbursed agro-loans went higher than 100 million euros for the first time in 2019, the value is highly insufficient for the sector's needs. **Access to finance remains challenging,** as the level of collateral is hardly affordable, and the interest rates remain very high (between 6 and 30%), especially for small farms managed by young people.

Competitiveness is also about delivering high-quality products. **Storages (with sorting and packing equipment) and, to be specific, cold storage (that may support export at higher prices on the EU market) are insufficient for all types of agriculture products.** Furthermore**, despite generally having sufficient processing capacities, processing lines require additional investments to increase production quality and ensure food safety standards.** Quality and safety standards, such as Global GAP, Protected Designation of Origin (PDO), Protected Geographical Indications (PGI), and organic farming, are weakly implemented.

Although HACCP is not an EU mandatory standard, but the HACCP principles are mandatory.

According to the Food and Veterinary Agency, the food processing and packaging enterprises of animal origin are divided into 4 categories based on the degree of food safety risk:

- Category "A" = low level of risk
- Category "B" = medium level of risk
- Category "C" = high degree of risk
- Category "D" = very high degree of risk6. Only one company from the animal sector is certified for export to the EU.

Most of the **standards are not directly linked with the quality of products, such as environmental and animal welfare standards,** and may be considered non-productive investments. Burning **the costs for entering compliance is a risk that may further diminish the current shallow profit margins**, **putting at risk the fragile level of the sector competitiveness**. These costs cover the financial effort for the duly i[1]nvestment, maintenance, and operation (e.g., more space for animals in stables -

[4] *Labor Force Survey for Q4 2020, ASK, 2020*

[5] *Kosovo Memorandum on Increasing Agricultural Productivity, World Bank, 2021*

[6] *Food safety categorization of the Veterinary Agency - https://auvk.rks-gov.net/sq/bizneset-e-aprovuara-per- ushqime-me-origjine-shtazore*

including improved cages for laying hens, manure management – including waterproof storage vessels and specialized equipment for the application, etc.).

D**elaying such investments will lead to environmental costs that are usually more expensive and also paid with human health and will keep the Kosovo agriculture far from being ready with basic rules of the CAP: compliancy with the conditionality for all area payments under the CAP** (Direct Payments, compensations for natural constraints, eco-schemes, agri-environment schemes, etc.).

Under a legal framework in place, the public advisory system is the responsibility of DSHK&T a department of MAFRD, which coordinates the activities of the Municipality Centers for Information and Advisory.

Though relatively young, the private advisory system is larger than the public system. Its activity is associated with specific topics for the interest of the farmers: inputs, collection centers, agri-food processing, and grants schemes. Collection centers and food-processing plants provided successful training on market standards and donors' help. A consolidated local organization with horizontal agricultural-related activities and good experience in providing training for farmers is IADK[6]; nonetheless, its action is more project-oriented, and, as in the case of donors' support, the issue of long-term sustainability is raised.

The coordination between public and private advisory systems is weak. One of the reasons is the lack of well-organized farmers' associations that could be involved in knowledge transfer for the benefit of their members. The public advisory system cannot correctly address the farmers` needs, as it relies on a limited budget, and there is no monitoring and evaluation system for its activity. At the same time, the private sector is usually linked with specific businesses or helping farmers access grants, while a plan for the accreditation of the advisory providers is missing. **Universities and research institutes are weakly involved and not farmer-oriented; the concept of innovation within knowledge transfer is mainly missing**. The advisory system is not targeting the category of farmers with the highest potential of applying the newly acquired knowledge: young farmers, and also does not target modern agricultural practices for soil and water protection.

A specific effort is required to manage the transition period towards the broader adoption of new technologies, both in economic terms and knowledge management. Several gaps might hinder the adoption of productivity-enhancing and input-saving technologies. The knowledge gap might be the most problematic bottleneck in the modernization of Kosovo`s agriculture.

5.1.2 Farmers' position in the value chain

There are clear asymmetries of negotiation power along value chains. Farmers in Kosovo mainly trade at market prices, as they have little trading power in setting prices for their inputs and production. As input traders, processors are better organized and can impose prices, at least locally.

A specific legal base (EU aligned) for producer organizations is missing, and there is no specific national public support scheme to encourage their set-up and initial activity.

Despite the very high proportion of small farmers and various gaps in the value chain, **only a few farmer associations are known.** It appears that **sectors with high market demand, such as softwood (raspberries, cranberries and blackberries), fruit and vegetables, are more prone to establishing/membership in a producer group organization.** Most of them received support through different international donors' projects, covering soft fruits (e.g., red berries), fruits, milk, organic farming, and associations for input dealers and agri-food processing of fruits and vegetables. The sectors with strong market demand, such as berries, fruits, and vegetables, are more inclined to set up / join a producer group organization. As for the creation of cooperatives, only a few cases are known, most of which were supported by donor-funded projects.

The current legal framework is not sufficient to regulate cooperatives, as it requires joint ownership and use of assets, and this may not function properly without clear farm accounting rules for joint activities.

Despite the tendency of high concentration of value channels in some collection centers, processing plants and further, in some retail chains, there are no professional associations (for the same agricultural sector/for the whole commodity chain), therefore there is no associated body that brings together farmers, agri-food processors and representatives of (hyper) markets to allow discussions on profit margins along value chains

SWOT to increase the competitiveness of the agri-food sector and improve the efficiency and the sustainability of farm production.	
STRENGTHS ***<u>Land management and irrigation</u>*** • Good agro-climatic conditions for specific crops • Legal basis for land protection, irrigation of agricultural lands, and spatial planning is in place. • A master plan for irrigation is adopted. • Municipal development plans are in place.	**WEAKNESSES** ***<u>Land management and irrigation</u>*** • Fragmented agricultural land in small plots • Illegal construction on agricultural land • Abandonment of agricultural activities • Lack of a clear land protection policy • Problem with ownership - non-transfer of inheritance (create problems in long-term rent and lease as well as bank mortgages) • Pollution of agricultural lands (improper use of PPPs, chemical fertilizers, wastewater, and waste). • Usage of river bed gravel on agricultural lands • Poor river management and destruction of river beds • Soil erosion • Discharge of polluted water into water bodies without prior treatment • Insufficient enforcement of policies and legislation / Poor enforcement of laws • Lack of sufficient knowledge of farmers about good irrigation practices • Lack of training and specialized advisory service on environmental issues • Lack of GIS data • Lack of landfill management

Agriculture and food industry	***Agriculture and food industry***
• Traditions in the production of fruits, vegetables, grapes, and livestock products • The growing trend of commercial farm development • Sufficient pastures for use • Legal basis for food safety • Sufficient capacity of agro-processing industry / Well-functioning food processing enterprises • Some food processors (milk and meat) meet EU food safety standards (category A) • The trend of increasing production capacities • Increased consumer demand for fresh local products • Improve Government policies and commitment to developing the competitiveness of the sector • Basic structures for consulting and technology transfer for primary production are established • Improving know-how due to the implementation of various donor-funded projects • The national budget for agriculture and rural development increased (direct payments and investment grants) for key agri-food sectors • MAFRD capacity in managing the IPARD Program • Racial improvement of the bovine population	• Lack of different types of processed products (non-diversified products) • Insufficient amount of primary production • High prices and low quality of agricultural inputs (seeds, concentrated feed, breed, fertilizers) • Most low yielding varieties and breeds • Lack of agricultural infrastructure (irrigation, field roads) • Low labor productivity due to lack of agricultural machinery, significant workforce commitment as well as obsolete machinery, equipment, and facilities • Agriculture is poorly digitalized, and only a few farms have precision agricultural technology. • Failure to keep records by most farmers; • Limited financial capacity to invest in new technology and increase farm size due to low-profit margin • Low level of vertical and horizontal cooperation between production and processing • Weak producer organizations and relevant legislation • Weak farm management skills and lack of comprehensive advisory services and regular training • Low level of commitment of institutions and farmers to support the process of agricultural land consolidation • Poor market organization and lack of facilities with modern technology for post-harvest treatment (collection center, warehouse) • Low level of implementation of national and EU standards (food safety, environment, animal welfare); • Low productivity of the processing sector due to outdated technology; • High rate of import of agri-food products and semi-finished products;

	• The informal market of agricultural products; • Difficulties in obtaining agricultural loans and high-interest rates, short grace period, and only short-term repayment loans; • Hardly accessible and deficient insurance schemes (not all crops included) for farmers; • Low research and development involvement and slow pace of innovation penetration in the agri-food sector; • Lack of external investors that can bring capital and know-how; • Lack of experts (experienced and specialized technologists, machinery experts, etc.); • Lack of knowledge and opportunities for the use of renewable energy sources from agricultural products; • The aging population and lack of interest and motivation of young people to consider agriculture as their primary profession; • Insufficient knowledge, information, and skills for modern farm management, national and EU standards; • Poor compliance with standards • Low interest in investing in climate change adaptation exists. • Low level of trust in national public policies
Education and Training in Agriculture and Rural Development • Legal basis for training and advisory services completed. (Law No. 04 / L-074 on advisory services for agriculture and rural development with bylaws); • The organizational structure of advisory services is established. Establishment of the Department of Advisory and Technical Services (Decision of OPS-769/12 and 38 Municipal Information Advisory Centers);	**Education and Training in Agriculture and Rural Development** • The organizational structure of consulting services is not fully functional; • Lack of an Advisory Committee (with a comprehensive composition: MAFRD, MEST, Faculty of Agriculture, Private Sector, and other relevant actors) for recommendations and

• Experience in implementing the support scheme for the provision of advisory services and professional training to councilors, farmers, and the rural community; • Consolidated public / private education/research and vocational training system (5 agricultural high schools, three agricultural vocational faculties, and 13 licensed private consulting companies); • Advancing knowledge to farmers and agro-processors on quality and food safety standards (agricultural products); • Providing advisory services to farmers free of charge; • Experiences gained from good agricultural practices of leading agricultural advisors and farmers from a study visit to the EU. • Sufficient professional and technical potential in various agricultural sectors; • Considered number of trained and certified agricultural advisors (about 400 certified public and private advisors); • The willingness of 38 CCK and 43 public advisors for agriculture and rural development to cooperate with DSHKT; • The willingness of graduated agricultural students to continue their training to be engaged in farming activities and with the CCK; • Possibility to organize training in building technical and professional capacities for public and private agricultural advisors on an annual basis; • There are model farms, where good agricultural practices and on-farm demonstrations can be carried out; • Access to national funds and EU fonts.	preparation of extension training programs; • Lack of political support in the reorganization of DSHKT, until 2020; • Lack of Identification of needs and setting of priorities for research and transfer of technologies, a process that requires significant improvement; • Lack of support for the CCK, with the necessary logistics and the introduction of massive use of information technology and the Website of advisory services; • Farmers' reluctance to accept innovations - Dominance of traditional methods in agriculture; • Most farmers are not in line with modern agricultural development; • Difficulties in disseminating information to farmers (There is no reasonable access for farmers to information and advice). Young farmers receive information to meet their needs online; • Incomplete integration of the CCK and 43 municipal councilors in MAFRD- DSHKT; • Insufficient cooperation and coordination with related institutions (technical departments, ADA); • Inadequate level of practical training and demonstrations; • Lack of evaluation of training programs and public advisory services, as well as lack of assessment of trainers; • Lack of a monitoring system in DSHKT; • Limited use of media for publicity and promotion of agricultural activities; • Poor organization of farmers in Associations and Cooperatives;

	• Low level of knowledge of on-farm record-keeping / farm accounting and farm management; • Difficulties in fully implementing the Law on Consulting Services by consulting service providers.

OPPORTUNITIES	*THREATS*
Land management and irrigation	***Land management and irrigation***
• An increasing trend in the agricultural prices stimulates a rational use of the farming land • Export of certified organic products and medicinal plants	• Soil and irrigation management • Insufficient training for farmers • Loss of land from uncontrolled construction • Loss of soil quality from intensive production
Agriculture and food industry	• Water pollution • Further soil erosion • Climate change, drought, floods • Insufficiently used pastures • Inadequate implementation of organic system certification and control • Conversion of meadows to arable land or non-agricultural land
• Consumer preference for local products • Increased consumer revenue leads to increased market demand • Support from sustainable donors • SAA Agreement, access to EU markets • Increased demand for the export of certified organic products and medicinal plants • Market demand for the use of organic waste for bio-oil production.	***Agriculture and food industry*** • Increased competition from highly subsidized imported products • Unpredictable movements in prices of agricultural products • Climate change and natural disasters • Increased water, air, and soil pollution by non-agricultural economic operators • Emigration of the population, especially of young people from rural areas • Setting environmental standards without sufficient public support can negatively affect the competitiveness of farms and the agri-food industry • Insufficient institutional capacity to implement direct payments and grant schemes prevents the sector from accessing available financial resources.
Training in Agriculture and Rural Development • Willingness to cooperate throughout the value chain in the agriculture and forestry sectors for knowledge and innovation transfer;	***Education and Training in Agriculture and Rural Development*** • Lack of sufficient government budget for the sustainable functioning of the Advisory Services; • Lack of a proper strategy for the agricultural education system; (Lack of a curriculum evaluation plan and manuals for extension services in agriculture and rural development).

• Government and donor readiness, including EU support, through IPA III; to support counseling services, with the financial backing, in a reorganization, expertise, counseling services, vocational training, and training; • Better cooperation and coordination of activities with private providers/advisors to expand the availability of advisory services in support of the pluralistic advisory service, which can provide for farmers and the rural community; • New political structure in support of the Department of Consulting and Technical Services;	• Lack of an approved strategy (within MAFRD) for advisory services. • Lack of coordination of training consulting activities between scientific / research, innovative educational institutions and laboratories, and private consulting institutions with MAFRD. • Risk of perception of advisory services as useless by farmers; • Migration of youth and professional people to urban areas and abroad; • Lack of a certification/accreditation body for the licensing of agricultural advisors. • Insufficient professional administrative capacity in research centers and private consulting companies; • Lack of specialized staff in rural diversification, extension, agri-environment, and food technology. • The non-leveling of salaries for municipal councilors in the CCK has demotivated the councilors in municipalities. • Lack of political will in the restructuring and organization of DSHKT, in an Institution; educational, advisory, and research in the function of sustainable agriculture. • There is no continuing training/education for expert farmers (all based on tenders) • There is no financial and technical support for research and innovation. • The perception of young people about agriculture as a sector without perspective (both those who want to deal with agriculture and those who wish to study agriculture) is turning out. • Collecting data and information in agriculture is a complex process.

5.2 Agricultural land and natural resources (such as soils, forests, and water)

The land is considered an essential aspect of production, especially agricultural production. Despite the progress of civilization, the development of technology, the problem of food production and supply, and the issue of restrictions on the availability of arable land remain crucial.

Agricultural land protection enables long-term food security and provides substantial environmental benefits. Promoting agricultural sustainability helps to ensure that agricultural land is cultivated and available for food production in the future.

There is widespread recognition of the role of farmers in mitigating climate change; conserving natural resources, landscapes, and biodiversity. From an agricultural policy perspective, Kosovo has just begun to make its interventions as environmentally friendly as possible, but long-established

traditional farming practices are already bringing environmental benefits. The result is rich biodiversity, beautiful landscapes, and high-quality local products.

5.2.1 Climate change mitigation and adaptation, as well as renewable energy

Detailed historical climate data for Kosovo are missing. Still, as a small country within Western Balkans, it may be considered that its climate trends and projections are those of the region. Thus, according to Climate Change Risk Profile for Kosovo[7] prepared by USAID, **observations in the Western Balkans include a rising temperature since 1960, a decrease in precipitations, and increased intensity and frequency of the precipitations` extremes** (both heavy showers of rain and droughts), as well an increase in the number of forest fires in the last 20 years. The climate projections refer to a continuation of the warming climate at an intensity higher than the world average and a decrease in overall annual precipitation, with the most significant reductions in summer and a decrease in the number of days with snow cover.

Regarding **GHG emissions, in 2018, the share of agriculture was about 6% of total country emissions**[8], far behind the EU level (12.55%).[9] The lower value is a consequence of the country's high emissions from the energy sector (use of coal for electricity and heating) and a lower number of animals / primarily extensive management of the animal breeding sector.

Most of the emissions from agricultural sources are from enteric fermentation (70%), animal manure management, and soil management (10%). Methane (CH_4) – with 25 times higher warming effect, shares 75% of the total agricultural GHG emissions. Nitrous oxide (N_2O), with 298 times higher warming effect, has a share of 22%. In contrast, only 3% of GHG emissions are CO_2.

Kosovo hasn't elaborated projections for GHG emissions and does not have a reference period for possible reductions yet, as it is not yet part of the international conventions. Aiming to increase its livestock and considering the sector's capacity to generate profit to be re-invested, **Kosovo finds it challenging to follow the EU target of reducing GHG emissions by 55% until 2050. Reducing emissions from enteric fermentation is challenging (e.g., reducing protein levels in the animal feed), as it will reduce the productivity of the farms. The sector is missing modern barns.** Biogas plants are currently entirely missing in Kosovo due to the lack of large animal farms and the farm infrastructure necessary to quickly transport the manure to the plant (otherwise, methane will vanish along the manure mineralization process).

Regarding renewable energy, Kosovo may rely on more than 1.27 million tons of biomass from forestry sources and 3.83 million tons of biomass per year to meet the targets set in the National Action Plan for the implementation of Renewable Energy. The total potential of the annual amount of electricity and thermal energy from forestry and agricultural biomass is estimated at 7,446 GWh/year[10]. Still, farmers can't find high interest in **producing energy from biomass in agriculture at the farm level**. The sector is struggling with significant shortcomings (e.g., small farm size, lack of facilities and mechanization) that must be prioritized to ensure the viability of farm economic growth. An important impact in stimulating renewable energy was achieved through the MAFRD grants schemes, as presented below:

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[7] Climate Change Risk Profile Factsheets, Kosovo https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile%20-%20Kosovo.pdf

[8] Raport i treguesve mjedisor - http://www.ammk-rks.net/repository/docs/Mjedisi_i_Kosov%C3%ABs_2020_Raport_i_treguesve_mjedisor%C3%AB_-_SHQIP.pdf

[9] European Commission database - https://agridata.ec.europa.eu/extensions/DashboardIndicators/DataExplorer.html?select=EU27_FLAG,1

[10] Analysis of the Potential for Renewable Utilization in Kosovo Power Sector, Lajqi, Shpetim, Bojan Đurin, Xhevat Berisha and Lucija Plantak, 2020

Table 16 - Assessment of capacities and use of renewable energy - solar panels on the farm / agricultural enterprise

Years	No. of farms	Capacity[11] kW	Co-financing amount / €	Public support/ €	Private support/ €
1	2	3	4 (3x1800 €)	5 (4 x 60%)	5 (4x 40%)
2014	135	540.00	972,000.00	583,200.00	388,800.00
2015	156	624.00	1,123,200.00	673,920.00	449,280.00
2016	193	675.50	1,215,900.00	729,540.00	486,360.00
2017	168	588.00	1,058,400.00	635,040.00	423,360.00
2018	222	666.00	1,198,800.00	719,280.00	479,520.00
2019	199	597.00	1,074,600.00	644,760.00	429,840.00
Total	**1,073**	**3,690.50**	**6,642,900.00**	**3,985,740.00**	**2,657,160.00**

Source: MAFRD

With no subsidies for energetic crops (like in the EU Member States) and a high trade deficit in agriculture, **Kosovo is not producing biofuels**.

Kosovo has a genuine potential to contribute to **climate change mitigation** through **carbon sequestration** measures, such as **afforestation of the agricultural land** (also addressing the problem of soil erosion). As regards the **maintenance of the extensive use of grasslands** (recognized as a carbon sink), there is no compensatory payment in place, despite the ARDP 2014 – 2020 actions to promote agri-environmental schemes. On the other hand, stubble burning practices decrease soil organic matter / its carbon content.

The primary **climate change adaptation** measure may be considered **rehabilitation and modernization of the irrigation and drainage system**. Still, the method currently requires significant investments and restructuring. **Local breeds** and plant varieties are still used mainly by traditional farms. **Well adapted to local conditions, they offer resilience** in extreme climate conditions but are not very productive. Market-oriented farms may ensure their viability through risk management. Still, Kosovo does not have a real market for agricultural insurance schemes. These are currently operating mainly in connection with agro-loans (in case of yield loss, the bank will benefit from the insurance premium). Furthermore, **public or private advisory systems do not promote good practices for climate change adaptation, such as usage of cover crops, no-tillage or minimum tillage, crop diversification, and rotation**.

Direct payments are not linked to any environmental conditionality, and there isn't any agri-environment measure yet in place.

Despite all, **it is worth appreciating the country's efficiency in mitigation of climate change through extensive management of large grasslands and the low-input cropping system (which may be counted as more effective than high technologies and good practices applied in intensive agriculture systems of other countries)**. Still, along with the expected development of agriculture, good practices, and climate change-related investments are essential; otherwise, **there is a high risk of losing a moment of opportunity to ensure the country's sustainable development and a close alignment with the EU policies.**

Kosovo signed the Sofia Declaration on the Green Agenda for the Western Balkans (GAWB) in November 2020, thus coping with the European Green Deal strategy towards *a modern, climate neutral, resource-efficient, and competitive economy*. Among the agreed actions *are aligning with the EU Climate Law*(once it is adopted), with a vision of achieving climate neutrality by 2050 and

[11]Kapacitet mesatare të instaluara te energjisë se ripertritshme (panelave solare) për njësi te fermës/agrondermarrjes, sillen nga: 3-4 kw.

setting 2030 energy and climate targets **through the development and implementation of clear measures designed to reduce greenhouse gas emissions by integrating climate action into all relevant sector policies**.

5.2.2 The management of natural resources such as water, soil, and air

As regards **air quality**, ammonia (NH_3) is the primary air pollutant. Agricultural activities are the dominant contributors to ammonia emissions.[12]

Kosovo is not part of the Convention on Long-Range Transboundary Air-Pollution (CLRTAP) and did not sign the Gothenburg Protocol (to Abate Acidification, Eutrophication and Ground-level Ozone); therefore, there is no target for reducing ammonia emissions (as compared to EU MS, which are obliged to reduce ammonia emissions as a result of the National Emissions Reduction Commitments (NEC) Directive[13].

Kosovo's national inventory reports cover emissions mainly for the power sector, while data for several other industries, including agriculture, are missing.

No good environmental practices were identified, nor the best available techniques promoted or imposed by the national legislation for the reduction of ammonia emissions from agricultural sources (such as manure management in barns, storage, and especially land application as natural fertilizers), nor specific guidelines for farmers in this regard (as requested by the NEC Directive).

A methodology for soil classification is approved, but the available data are impoverished, as the only systematic assessment being carried out was around 50 years ago. In terms of quality, 56% of soils are considered to have poor quality, 29% an average quality, and only 15% - a good quality.[14]

Data on soil organic matter, soil compaction, and salinization are missing.

The data on soil erosion are not collected systematically but based on GIS analysis and modeling of other data, such as land use, climate, and topographical data.

The analysis generated the following data:

Table 17 – Soil erosion by type and share

No.	The intensity of the erosion	Percentage of the total areas covered by soils
1	**Very strong**	**7.35**
2	**Strong**	**16.1**
3	**Medium**	**35.4**
4	**Low**	**24.55**
5	**Very low**	**10.1**
6	**Without erosion**	**6.5**

Source: Instituti Hidrometeorologjik

Burning stubble fields deplete the soil organic matter of the soils, and there is no system to discourage this practice. There are no support schemes in place to improve soil quality. Kosovo has insufficient reserves that may constrain the future economic development, estimated at only 1,600 m3 of water/inhabitant/year.15 With around 20,000 ha irrigated area and plans for 280,000 ha, agriculture is the second user of fresh water (after the public consumption), but with the highest potential for increasing the water demand.

[12]Air Pollution Management in Kosovo, World Bank, 2019 - https://documents1.worldbank.org/curated/en/214511576520047805/pdf/Air-Pollution-Management-in- Kosovo.pdf

[13]https://www.eea.europa.eu/themes/air/air-pollution-sources-1/national-emission-ceilings [14]http://seerural.org/wp-content/uploads/2016/07/Kosovo-report.pdf

In terms of water resources, with four essential rivers (Drini i Bardhë, Ibri, Morava e Binçës, and Lepenci). As regards **water quality**, the data on the **nitrates** concentrations from surface waters published in the "*Raport i treguesve mjedisor"*, 2020, shows low average concentrations during 2009 – 2019, with a maximum of 1.162 mg NO_3/l in 2013 and a level of 1.1 mg NO_3/l in 2019 (while the maximum concentration level with the Nitrates Directive is 50 mg NO_3/l). The primary sources of nitrates are manure (from the livestock sector), chemical fertilizers, and untreated sewage water.

There are no obligations or recommendations to farmers for the proper use of manure and chemical fertilizers (in EU countries, this information is included in a Code for Good Agricultural Practices and an Action Program for the prevention and reduction of nitrates pollution caused by agriculture, documents that are prepared based on provisions included in the Nitrates Directive[16] - one of the most important environmental directive that is).

According to the "*Raport i treguesve mjedisor"* 2020, **chemical fertilizer usage increased from around 71,000 tons in 2015 to approximately 76,000 tons in 2019** (calculated at around 78,500 tons in the Green Report, 2020). However, the information provided is only about the total quantities of chemical fertilizers and not about the amounts of pure nitrogen content, making it difficult to estimate the actual use of nitrogen, which should be estimated per ha of agricultural utilized area.

The manure management is inappropriate, mainly at the farm level. The average quantity of applied manure estimated by the Anketa e Ekonomive Buiqësore from 2019 is 14.6 tons/ha, while the average value is 20 tons/ha for vegetables. Considering that the concentration of N in composted manure is around 1%, it results that the average nitrogen allocation from organic fertilizers is 146 kg N/ha, while for vegetables is 200 kg N/ha, which is more than allowed by the Nitrates Directive (the limit is 170 kg N/ha/year). The small number of animals per farm and lack of equipment for properly composting, loading, transporting, and field application makes it difficult to consider the validity of the above values. The problems start with the barns, which lack the systems for collecting the dejections, storage vessels, and equipment for manure handling inside storage and field application, thus increasing the risk of nitrogen losses in the air (as ammonia emissions) and in water (as ammonium and especially nitrates).

There is a high-water demand for the agro-processing industry and **a high risk of water pollution, caused primarily by the milk plants.**

With public support for **organic farming** implemented since 2016, according to MAFRD data, **480 ha** of medicinal and aromatic plants are certified in the organic farming system, with 35 producers. Moreover, there is 522.47 ha of cultivated zucchini for organic oil production and 34.07 ha of organic walnuts. Despite high market demand and compared with the areas under organic farming from EU countries, the values are shallow. One of the main obstacles is the lack of a national organic farming certification and inspection system. It is worth remembering that the EU Farm-to-Fork Strategy aims at 25% of total agricultural areas under organic farming by 2030, meaning for Kosovo, around 105,000 ha.

As regards **certified organic areas for collecting wild fruits and medicinal plants, there are 373,488 ha certified linked with 45 collection centers**. Still, there is no rigorous control system that may validate the rules are appropriately respected (especially those related to the share of wild fruits and aromatic plants that must remain unharvested). Except for a state budget project to train the farmers to apply the soil tests and interpret the test results, the advisory system had minimal actions to promote good environmental practices to conserve natural resources.

[15] Gjendja e Ujërave në Kosovë, 2010- https://www.ammk-rks.net/repository/docs/raporti_ujrave%202010_shq.pdf

[16] https://ec.europa.eu/environment/water/water-nitrates/index_en.html

5.2.3 The biodiversity, ecosystem services, and preservation of habitats and landscapes

Kosovo has rich biodiversity and beautiful mountain landscapes. As a new country, Kosovo is not a signatory party of any convention or party to any agreement on nature protection, so it has no international obligations to protect biodiversity.

According to the "Raporti Gjendja e Natyrës 2008 - 2009 AMMK", 2010, the country has 97 protected areas, totaling 47,842.34 ha (or 4.39 % of Kosovo's territory), declared in line with International Union for Conservation of Nature (IUCN) categories. **None of the protected areas have management plans.**

The area coverage of the protected areas is relatively small compared with the EU Natura 2000 network, which is extended over 18% of the EU's land area and more than 8% of its marine territory. Nevertheless, **Kosovo committed through the Sofia Declaration on Green Agenda for the Western Balkans to increase administrative capacities for implementing the environmental obligations on monitoring, promoting, and enforcing compliance on biodiversity EU priorities**. Furthermore, the **EU Biodiversity Strategy for 2030** includes extra commitments and actions to be delivered by 2030, including establishing a more extensive network of protected areas.

As a result of a study,[17] Malet e Sharrit, Bjeshkët e Nemuna, Koritniku, Pashtriku, Kozniku, Gërmia, Bjeshkët e Kopaonikut and Mirusha have been classified as biodiversity centers of flora, fauna, and ecosystems in Kosovo, thus being classified as **potential areas for the Nature 2000 Network.** In these areas, 41 species of birds were identified, which are included in Annex I of the Birds Directive (part of Natura 2000).

Kosovo has prepared its Strategy and the Action Plan for Biodiversity 2011–2020, with specific chapters for agriculture and forestry. Among the mentioned priorities are the preservation of areas with special representative characteristics of natural habitats by applying traditional agriculture, farmers' education regarding the use of chemical fertilizers and pesticides, and management of forests in line with the sustainable development principles and afforestation with local species.

Forests make up around 44.7% (481,000 ha) of the country's area. The private sector ownership is estimated at 40%. In the last ten years, the forest areas increased by around 20,200 ha through natural afforestation (of grasslands, mainly due to under-grazing) and around 4,000 ha through planted trees. Coppice forest dominates the forest area with 84%. Pure broadleaved forests cover almost 83 % of the forest area; the dominant species is beech, coniferous forests cover 7 % of forestland, and there dominates fir and pine. [18] **The forests are considered to have high biodiversity.**

Due to sector specificities, the MAFRD is preparing a dedicated forestry strategy for 2021 – 2030.

The analysis within this document will not seek to replicate it but just synchronize with it. The priority needs and foreseen interventions for the sector will remain retained within the strategy for forestry.

While agriculture is **developing, both intensification and land abandonment are severe threats to biodiversity.**

[17] https://www.researchgate.net/figure/Potential-Zones-for-Ecological-Network-Nature-2000-in-Kosovo-3_fig1_220740571

[18] Action Plan for Biodiversity 2016 – 2020, 2016 - https://web.archive.org/web/20181003181801/https://mmph.rks-gov.net/repository/docs/Eng_SAPB_2016-2020_188255.pdf

Grasslands` biodiversity is mainly affected by under-grazing in remote areas and thus prone to natural afforestation or being dominated by invasive species, lowering their biodiversity value. Young people are not attracted by traditional shepherding. At the same time, they're also at risk of being under a more intensive use (high levels of chemicals and over-seeding). They may even be converted into arable land, especially in lower areas and close to human settlements. Nevertheless, most grasslands are naturally fertilized; pastures are still under extensive grazing, and meadows have traditionally delayed mowing dates, but the concept of high natural value farmland[19] is not yet defined and recognized.

Arable land is mainly under a low-input system due to small-scale farming but under the threat of agriculture intensification. The areas with used pesticides expanded from 115,000 ha in 2015 to 119,000 in 2019 – as mentioned by the "*Raport i treguesve mjedisor"* 2020.

The necessary **land consolidation process is a risk for the solitary trees and groups of trees** under the current weak regulated and control system for environmental protection.

The policy for agriculture is not foreseeing any environmental conditioning for the direct payments or incentivizing measures/rewarding the farms lost income and additional. The expected increase in pesticides in low land and the reduced grazing density in highlands will further affect biodiversity in case of no policy measures are in place.

Mountainous areas were defined and delineated. The current grant schemes are not specifically targeting the area (no extra score through the selection system and no higher public support intensity rate). Despite being prone to land abandonment, there are no compensatory payments for the reduced farm income due to altitude and slopes.

Poor waste management is an obvious problem. Waste along roads and rivers and illegal dumping affect the air, soil, water, and biodiversity.

Concerning Farm-to-Fork Strategy targets, while increasing the areas of organic farming creates the opportunity for increased market demand, **rather than the intensive use of the fertilizers and pesticides requiring a reduction, their proper storage, and field-application techniques are the main problems in Kosovo.**

Farmers lack specific training for the proper use of pesticides in the agri-environment.

Important baseline indicators are missing: the actual quantities used in chemical products (kg of pesticides/ha, kg of nitrogen/ha), farmland bird index, agricultural areas with high natural value, gross nutrient balance, and underground nitrates.

SWOT - Sustainable management of the natural resources (such as soils, forests and water)	
STRENGTHS ***Forestry***	**WEAKNESSES** ***Forestry***
• About 45% of the territory of Kosovo is covered with forests; which has potential for multi-purpose use; • Existence of forests of natural origin with rich diversity; • Management structures according to the legal basis exist; • Executive unit of woodland and forest land management exists; • Functional forestry inspectorate; • International cooperation for forestry	• High level of irregular deforestation; • Lack of state investment in forestry • Failure to include in the planning of multi-purpose use of forests; • Poor forest infrastructure; • Lack of foreign investment; • Lack of silvicultural measures in the cultivation and care of forests, as well as in forest health; • Uncoordinated management structure and insufficient efficiency; • Low level of revenue collection;

[19] https://www.eea.europa.eu/data-and-maps/data/high-nature-value-farmland

education is present; • *Capacities (bare spaces) for afforestation and reforestation exist (National Plan for afforestation and reforestation 2018-2027);* • *There is a legal basis for this sector;* • *There is a training program for capacity building in forestry;* • *There is a faculty of forestry;* • *PPJD rich forests;* ***Other environmental and climate issues*** • *Low level of emissions (due to reduced livestock);* • *A long tradition in extensive management of grasslands;* • *Well adapted local breeds;* • *Low levels of nitrates in surface waters;* • *Potential areas for the Natura 2000 Network are identified;* • *Wealthy biodiversity and beautiful mountain landscapes;* • *A high share of traditional low-input agriculture, primarily due to small scale farming;* • *Limited efforts for conversion to organic farming;* • *Delineation of mountain areas in place.*	• *Lack of professional technical capacity;* • *Disproportionate use of forest production potential;* • *Non-support of the forestry sector with direct payments and grants;* • *Lack of an information management system in forestry, namely the Forestry Information System in Kosovo, as well as other information technologies;* • *Lack of a Forestry Institute and dysfunction of the forestry laboratory;* • *Lack of forest register;* • *Lack of advisory services for private forest owners in forestry;* • *Lack of coordination with MESP for forest management in National Parks;* ***Other environmental and climate issues*** • *More than half of the soils risk soil erosion (with at least a medium intensity);* • *Sand and gravel mining is affecting the environment due to weak controls and lack of restoration action at the end of the mine lifetime;* • *There is a methodology for soils classification and use of various data, such as from Corine Land Cover inventory, but there are no reliable data maps/including GIS, as the soil tests are old and insufficient;* • *There are no international conventions and protocols applicable to Kosovo;* • *Small areas covered by protected areas with missing management plans;* • *Land abandonment in mountain areas is lowering the biodiversity of the grasslands;* • *Poor management of manure and chemicals;* • *Stubble burning is reducing soil organic matter in soils;* • *High Natural Value agricultural land not identified (although existing);* • *Water pollution caused by the agro-food industry;* • *Weak implementation and enforcement of the environmental policy;* • *Lack of various baseline indicators;* • *Low level of awareness on environment protection and climate change mitigation and adaptation measures;*

	• Poor waste management.
OPPORTUNITIES ***Forestry*** • Favorable climatic and soil conditions for tree growth and PPJD; • Well recognized economic, social and environmental value in the case of multifunctional forest management; • Diversification of the rural economy, development of eco-tourism, and creation of new jobs; ***<u>Other environmental and climate issues</u>*** • Signing international conventions and protocols will lead to better-protected nature; • High export demand for organic products; • Taking advantage of the opportunity costs[20] for compensating for extensive farming practices as defined by EU guidelines.	**THREATS** ***Forestry*** • Illegal logging; • Neglect of the judicial and prosecutorial system in convictions for illegal actions and low sentences; • Lack of forestry experts (forestry engineers and technicians); • Damage from fires, biotic and abiotic factors in forest health; • Problems in forest management in the municipalities of Leposaviq, Zubin Potok, and Zveçan; • Occupation of forest land and illegal construction; • Ineffective monitoring system; • Introduction of invasive species and loss of genetic basis; • Pollution of forest ecosystems by various wastes; • Climate change; • Habitat endangerment; ***<u>Other environmental and climate issues</u>*** • Climate change may affect biodiversity and increase soil erosion**;** • Intensification of agriculture in low land without adopting good practices may lead to biodiversity losses and water pollution due to inappropriate pesticides and fertilizers use**;** • Conservation measures for protected areas may impose farming restrictions without proper preset compensatory payment schemes.

[20]Opportunity costs refers to compensatory payments for extensive farming for avoiding land abandonment or agriculture intensification

5.3 Rural areas and socio-economic infrastructure

5.3.2 Employment, social inclusion, and local development in rural areas

With a very high population density (around 170 inhabitants/km^2), **about 57% of the country's population (1.873 million) lives in rural areas**, compared with an EU average of 15%.

The rural areas are dependent mainly on the primary sector. They have a per capita income that is significantly lower than the country average (by a third in the case of EU countries). Despite **a relatively substantial increase in the purchasing power parity** at the national level during 2015 – 2019, Kosovo remains with the lowest value in the region.

Table 18 – GDP per capita at Purchasing Power Parity

Country	2015	2016	2017	2018	2019	Variation
	GDP per capita at equivalent to purchasing power/ $					
Bulgaria	18,343	20,019	21,387	22,911	24,579	**34.00%**
Croatia	23,005	24,876	26,800	28,554	30,245	**31.48%**
North Macedonia	13,827	15,077	15,649	16,671	17,583	**27.16%**
Montenegro	16,332	18,199	19,682	21,547	23,343	**42.93%**
Serbia	14,928	15,858	16,611	17,736	18,929	**26.80%**
Kosovo	**9,575**	**10,062**	**10,530**	**11,156**	**11,930**	**24.60%**

Source: World Bank data - https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2019&locations=XK&start=2019&view=map

A quality-of-life index for the rural areas is not available. Still, with 42% of annual household consumption only on food, 26% on housing, only 0.25% on education, and 0.45% on recreation[21], the **quality of life may be considered very low.**

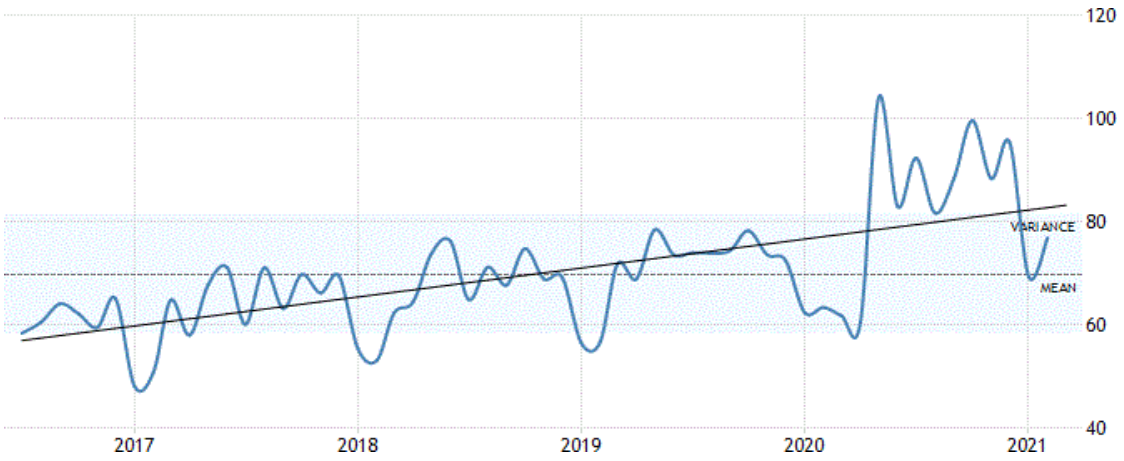
Kosovo is listed as a "safe country of origin," but the **lack of jobs and basic infrastructure generates migration.** The international migrants prefer Switzerland, Germany, and Italy. Returnees are a particularly vulnerable group, usually in worse economic position compared to their situation before migrating and with housing issues. Yet, the fundamental problem remains the lack of jobs. “Unemployment is rather the rule than the exception. Usually, many household members depend on just one income earner or fully depend on the small amount of social welfare that they receive” (Judith Möllers et al., 2017).

Remittances still supplement the population's **incomes**, at around 80 million euros per month. Around 28% of the households are categorized as migrant households, meaning that they have at least one family member living abroad. On average, the number of migrants is 2.5. About 60% of these migrant households receive remittances, contributing 13% of their income.[22]

[21] Kosovo in figures, 2019

[22] Study on Rural Migration and Return Migration in Kosovo, Judith Möllers, Diana Traikova, Thomas Herzfeld, and Egzon Bajrami, 2017

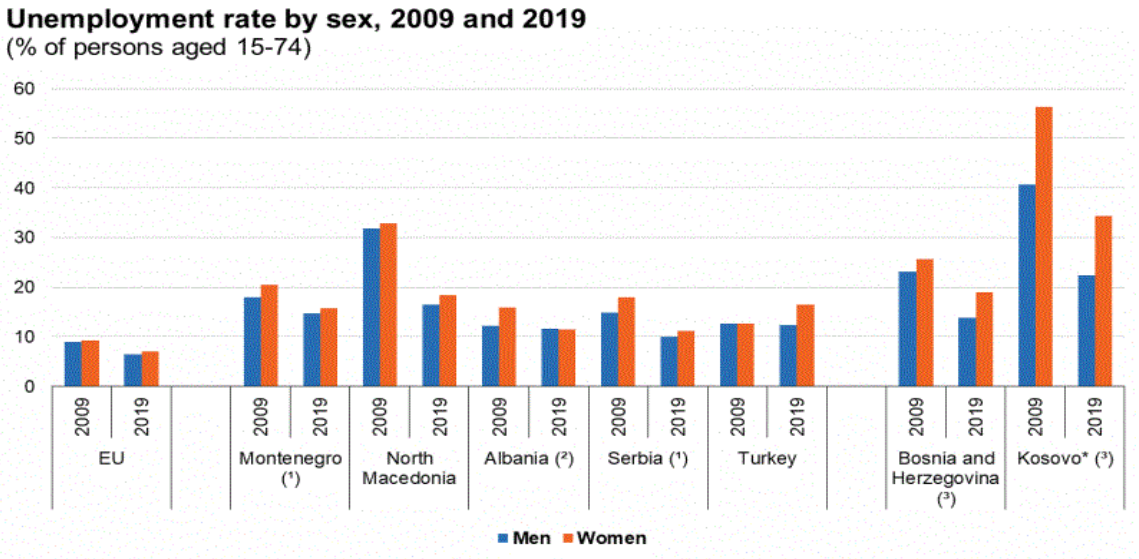
Remittances trend in Kosovo 2017 - 2021



Source: TrendingEconomics.com (based on Central Bank of the Republic of Kosovo data) - https://tradingeconomics.com/kosovo/remittances

Kosovo is a relying mainly on domestic capital for new investments. The country's current economic development trends and the volume of remittances are essential factors in determining the financial potential for business development. Still, t**he increased purchasing power parity and the remittances are not high enough to produce crucial changes in the local economy in the following years alone.**

Although unemployment dropped considerably from 2009 to 2019, it is still an important problem in Kosovo, **with one of the highest values in the region, especially for women**.



Source: Eurostat

The **basic infrastructure in rural areas remains poor**. There is a strong need for rural roads and water and sewage systems (including water treatment plants).

The **road network was enlarged in the last years, but they are still insufficient**, considering the land fragmentation of the country. In 2019, out of 2,311.7 km of roads, almost 4.4% did not have asphalt as a top layer.

Table 19 – Road length (km)

Road type	2015	2016	2017	2018	2019	Variation 2015 – 2019
Highway	78.0	98.0	108.0	119.1	137.2	**75.90%**
National	630.4	630.4	630.4	641.7	665.2	**5.52%**
Regional	1,305.0	1,305.0	1,305.0	1,313.9	1,509.4	**15.66%**
Total	**2,013.4**	**2,033.4**	**2,043.4**	**2,074.7**	**2,311.7**	**14.82%**

Source: Ministry of Infrastructure

Poor forest roads make it hard to implement a sustainable wood harvesting system. The **weak road infrastructure for accessing agricultural plots** forces the farm machinery to disturb the traffic on national and regional routes.

According to *Statistikat e Ujërave në Kosovë 2018-2019*, in 2018, only around 86.31 % of the country's population was connected to a **water system infrastructure**, which is a big difference between urban and rural areas: while in urban areas, the percentage is 99%, **in rural areas is reaching only 61%.** The level of connection to a sewage system is even lower, as are connected only 65% of the population from the area where the Regional Water Company is operating. Except for one city (Skenderaj), the **sewage water is directly discharged into rivers** without being treated, contributing to water pollution.

While the country has recently improved its electricity supply, there are still **significant problems with the local networks, which need rehabilitation and modernization**, especially in rural areas.

In 2019, **93.2% of families in Kosovo had internet access to homes or residences from a device**. Still, the level of the use of the internet remains low among elders and young people (Anketës së Përdorimit të Teknologjisë Informative dhe Komunikimit, 2019). In Kosovo, **there are 1,564 cultural heritage sites with temporary protection**, which, together with the natural amenities, are a very sound basis for developing rural tourism.

The most important public intervention for rural business development and economic diversification was the MAFRD grants schemes on diversification. As mentioned by the *Sector Study for Diversification, 2021*, during 2014 – 2020, a total of 563 projects were approved, with a total investment value of 14 million euros, out of which 8-million-euro final payments, with an average project value of 29,127 euro and an average grant value at 18,242 euro. The public support covered aquaculture, non-wood forestry products (NWFP), medicinal and aromatic plants (MAP), rural tourism, beekeeping, crafts, and on-farm processing. The largest budget was for beekeeping (3.48 million euros). On top of these MAFRD interventions, the EU Office in Kosovo allocated 8.7 million euros. Cross-border cooperation programs provided additional support for shared projects with North Macedonia, Albania, and Montenegro. USAID, GIZ, SWISS Contact, SIDA, etc., are also essential donors whose contribution is appreciated for the sector's development.

The collection of NWFP and MAPs is one of the essential rural businesses. The activity relies on the wild flora harvesting from eight zones, where two of the collection zones belong to the national parks. More than 300 species of NWFP and MAPs are collected, and a considerable number of species are cultivated. Some species (e.g., blueberries, Juniper, Elder, wild apples, chestnuts, etc.) have a very high commercial value and strongly contribute to families living in rural areas' income generation and economic well-being. **There is an assessment that country has around 20,000 pickers,** mainly women and children and often the whole family. Their earnings vary between 12-15 euros per day (Sector Study on Diversification, 2021), which may be a meager cost for the sector. The products have a strong market demand and consolidated distribution channels. Some concerns are raised over the sustainability of this type of business, as **the activity is under weak state control. There is a risk of natural resource depletion due to overharvesting.**

Despite grant schemes, **there is still a long road ahead in ensuring compliance with the standards related to food safety and the environment.** The weak law enforcement, limited institutional capacity to monitor, and the private sector financial constraints are the main obstacles, leading to **safety risks for companies and consumers**. By accepting the Western Balkan Green agenda, Kosovo has welcomed the **EU Farm-to-Fork Strategy** targets to **decrease the overall use and risk of chemical pesticides by 50% by 2030** and **reduce the sales of antimicrobials for farmed animals by 50% by 2030. However, this is very challenging for Kosovo and will require careful implementation**. Increasing pesticides' efficiency is more important for the country **than reducing their use, as currently, it is low. Still, specific knowledge on applying pesticides and modern equipment is deficient,** requiring intensive awareness and training programs and grants for equipment and machinery. Furthermore, institutions need consolidation to implement the EU Directive on the Sustainable Use of Pesticides, particularly on setting up a network of equipment for measurement, surveillance, and alert on plant diseases, mobile laboratories for inspection and calibration of pesticides field-application equipment, equipment for strengthening laboratories capacity for the plant protection products, and on digitalization for ensuring pesticides traceability, including the collection of data regarding the pesticides use and strengthening the reporting capacity. The promotion of animal welfare standards will lead to a reduction in antimicrobial use. The higher bar of norms will result in a lower need for antimicrobials.

Kosovo has a suitable environment for beekeeping and honey production due to the low use of pesticides. With a very high demand for honey from the local market, the prices are higher than in EU countries. The Government has supported the sector's development by increasing the direct payments budget from 500,000-euro 2019 to 3 million euros in 2019. **Almost all domestic production (estimated by MAFRD at 2,198 tons for 2020) follows informal market channels.** Still, the sector has its shortcomings: poor health of colonies as a result of low quality of the products used in beekeeping and weak good beekeeping practices applied.

Concerning aquaculture, fish farming shows a positive growth trend, primarily due to the production of rainbow trout (Oncorhynchus mykiss), which is currently estimated at 1581 tons (Sector Study on Diversification, 2021).

Still, it **is missing a market policy aligned with the EU acquis on the inventory of fish species** and a more robust administrative capacity for policy management, inspection, and control (Annual Progress Report, European Commission, 2020).

The fishery remains closely linked with the local tourism development, while the water resources need special attention in case this sector is scaling up.

The rural tourism sector proved its role in generating extra income in rural areas. With a substantial role in integrating the local economy and adding value to local agricultural products, rural tourism was strongly affected by COVID-19 and requires special attention in the next period. Still, rural tourism is mostly not linked with farming; it proved challenging to develop agro-tourism. Specific training for farmers with the potential to offer essential touristic services (bed and breakfast) is missing.

The rural economy in Kosovo may be considered green as long as purchasing power is weak and traditional farming continues to use the local resources wisely. **Real threats are related to uncontrolled pesticides, over-harvesting of NWFP and wild MAP, and pollution with plastic.** Sound environmental practices are mainly missing and weakly promoted.

5.3.3 Local Development

Ministry has gained a good experience in managing LEADER (from the French "Liaison Entre Actions de Développement de l'Économie Rurale") and Community-Led Local Development Actions (CLLD).
Kosovo has set up 12 Local Action Groups (LAGs) organized under a network. **LAGs are knowledgeable in preparing local development strategies (LDS) and identifying projects with local importance**. The interest in LAGs is high – other local representatives are expressing their interest in this approach. However, in the recent past, the **LAGs were deprived of the essential financial resources for their operation, jeopardizing their actual existence and raising trusting issues in the approach**. Furthermore, the Paying Agency implementation system is not adapted to LAGs' specificities, as the system of payments is designed to reimburse the costs for the grants schemes and does not address the continued need for cash for the LAGs running costs.
Various **vital operational features for LAGs are not clearly defined. The critical gaps in LAGs' administrative and functional tasks were identified** (for example, missing a detailed list of running costs, a clear separation between an internal decision-making body and a selection body, the perspective of LAGs as managers of the local development strategy, rather than as final beneficiaries of grants, etc.) Municipalities are continuing to launch local support schemes for farmers, which are not part of the line ministry policy nor the local development strategies, thus missing the opportunity to ensure coherence in local initiatives and attract the local budget for the implementation of the LDS.
The existent **LAGs are not yet ready to take higher responsibilities** in selecting local projects according to the local priorities **without further training** from experienced persons / other LAGs from EU countries.

5.3.4 Healthy food and food safety

Except for the Veterinary Agency's efforts to ensure food safety and animal health standards, **there is little attention given to the food's nutritious qualities, the sustainability of the production systems, and the reduction of food waste.** MAFRD provided specific farm designs for the grant applicants regarding animal welfare standards, but these standards are missing from the Veterinary Agency control system. It is a known fact that animal welfare standards reduce the use of antimicrobials.
However, as in the case of any standards, a precaution approach is advisable: imposing standards in a short time, without awareness campaigns and ensuring financial support for their implementation, will not lead to expected results. Kosovo is interested in promoting its local producers, including those continuing old traditions. Small-scale farming agriculture fully responds to the definition of sustainable agriculture, as is in benefits animal welfare and is under a low use of chemicals and antimicrobials. With an incredible advantage of extensive grazing, local breeds, and low-input agriculture, the local products are very high quality.
Kosovo is currently missing the opportunity of valuing its high-quality local products. Local traditional products (which may be considered sustainable and with low chemicals) may gain **higher chances in the local market by introducing detailed labeling** (logo included) under a validated and reliable control system. When combined with awareness campaigns and advertising actions (for linking these products to the concept of healthy food and preservation of traditions), other farmers will be encouraged to maintain or adopt sustainable practices.

5.3.5 Gender equality and social inclusion

The Constitution of the Republic of Kosovo "ensures gender equality as a fundamental value for the democratic development of the society, providing equal opportunities for both female and male participation in the political, economic, social, cultural and other areas of societal life" (Art. 7). Furthermore, the Kosovo public administration has considered the Recast EU Directive (2006/54/EC) on Equal Opportunities and Equal Treatment of women and men in employment and occupation.
Women's participation in the decision-making process will be ensured along all stages of this Strategy preparation and implementation to give women an equal and real opportunity to access and benefit from funds.

Affirmative actions were applied, such as higher scoring for grants and equal chances of accessing direct payments. The interventions will seek fully respect the rights of any individuals, including minorities and vulnerable groups. The intervention mechanism shall include actions to guarantee equal and real opportunities for minorities and vulnerable groups to access and benefit from funds. Activities for their access to information should consist of unique information campaigns and training sessions. All official documents shall be prepared in Albanian and Serbian languages, while the official websites will post all the official documents in both languages.

SWOT matrix on increasing of the social infrastructure in rural areas

STRENGTHS	WEAKNESSES
Rural economy and improving the quality of life in rural areas	***Rural economy and improving the quality of life in rural areas***
• Availability of natural resources (mountains, forests, land, water, etc.), protected areas, and attractive landscape; • Tradition in the processing of agricultural products in households; • Forests rich in non-timber mountain products; • The great diversity of cultural heritage; • Availability of human resources / Still available new workforce; • Excellent internet access; • Long experience in MAPs, collection, and trade;	• Low economic development of rural areas (including bio-economy); • Difficulties in accessing finance for starting a business (lack of financial resources); • Poorly developed non-agricultural activities in rural areas; Rural tourism does not have a good relationship with the agricultural sector; • Lack of marketing/promotion for traditional products; • Lack of knowledge, training, lack of advisory services, and access to vocational training; • Shortage of skilled labor; • Poor rural infrastructure (lack of waste management and recycling, • Lack of (stable) electricity supply, water, and wastewater treatment; • Poor infrastructure and quality of lowland roads; • Poor public services (lack of kindergartens, lack of preschool institutions, after-school childcare, care for the elderly); • Reduction of non-timber mountain products due to over-collection and poor supervision of licensed collectors; • Poor cooperation between municipalities to promote integrated development initiatives; • Insufficient capacities of the Agency for Agricultural Development (training, IT, etc.) • Insufficient investments upstream the chain, especially drying and storing facilities; • Limited administrative capacity for marketing the local products; • Uncontrolled use of pesticides, over-harvesting of NWFP and wild MAP, and pollution with plastic;

	• A registration system for rural tourism is missing; There is no study on the potential of rural tourism; • Poor public rural infrastructure (roads, water supply, and especially sewage and treatment systems), forests, and agricultural roads.
Local development • There are LAGs; • There is an institutional experience in LEADER management; • There is an experience in preparing LDS; • There is a LAG Network.	***Local development*** • Lack of financial resources for the proper functioning of the • LAG; Lack of expertise in LAG management; • Lack of awareness of the importance of Local Government and LEADER access actions; • The current support measures are not in line with the EU's LEADER idea for project implementation; Lack of definition of the legal status of existing LAGs; • Lack of definition of operating / administrative expenses; • The weak human capacity to implement the LEADER approach to ADA; • Lack of procedures for implementing the LEADER approach; • Absence of deadlines (open timeframe) for requesting payments for operating expenses; • LAGs are not yet ready to take on higher responsibilities without further training.
OPPORTUNITIES ***Rural economy and improving the quality of life in rural areas*** • Starting a business is very easy (business registration); • Demand for traditional agricultural products/market demand for medicinal and aromatic products, non-timber mountain products, and products produced in households; • Increased demand for rural tourism services;	**THREATS** ***Rural economy and improving the quality of life in rural areas*** • Depopulation and aging of the population in rural areas; • Loss of interest among young people to become economically active in agriculture / rural areas; Widespread informal employment; • Low product standards; • Service standards do not match the expectations of potential customers;

• Close connectivity between rural and urban areas; ***<u>Local development</u>*** • EU - continues to support the LEADER approach; Strong interest of local authorities to prepare and implement LDS; • More accessible opportunities for using foreign funds; • Interest in establishing new LAGs; • Interest in activating the existing LAG	• Poor conservation measures of natural resources and cultural heritage; • Uncontrolled use of natural resources; • Unclear provisions regarding building permits in rural areas; • Increased labor costs and shortages in the labor market; ***<u>Local development</u>*** • Unstable budget; • Delays in budget allocation for LAGs; • Delays in payments for LDS preparation and operating expenses; • Risk of not providing funds for co-financing of public projects; • Late payments.

6. LINKING THE IDENTIFIED PROBLEMS WITH THE OBJECTIVES

6.2 Main identified problems – agriculture and agri-food sector

Kosovo has good natural conditions for agriculture and strong traditions in producing fruits, vegetables, grapes, and animal breeding. The country has gradually improved its legislation (for agricultural land, irrigation, spatial planning, training, advisory system, etc.) and planning (e.g., for irrigation, the development of communes, etc.). With a higher budget for subsidies and grants and donors` contributions, an increasing trend in the agricultural prices, and the consolidation of some trade channels, the citizen interest in commercial farming has increased. Furthermore, the food safety standards and the processing capacity were improved for the agro-processing plants. Institutional power for managing IPARD-like funds was also consolidated. A process of reorientation towards the market and higher added-value crops was observed in the last years.

However, small-scale farming remains the main structural weakness. Expensive inputs and demanding access to financial capital, old and insufficient agricultural equipment and machinery, and weak agricultural infrastructure (e.g., irrigation systems, agricultural roads, etc.) lead to the lowest added-value per annual working unit in agriculture compared to the EU and Kosovo's neighboring countries.

Storages (with sorting and packing equipment) and cold storage (that will support export at higher prices on the EU market) are insufficient for agriculture products.

There is Master Plan on Irrigations, and its action plan should be put in place.

Young farmers are a particular concern. The high unemployment and migration deprive the sector of skillful labor and its chances for faster modernization.

With just a few farming associative organizations, farmers are without market negotiation power and cooperation advantages (e.g., shared use of machinery, storage, etc.). There is no specific legal base for producers' organizations.

Good practices for manure management and efficient use of fertilizers and pesticides are neither regulated nor promoted through knowledge transfer networks or training. In general, farmers have insufficient access to information and know-how.

Despite reaching a good-processing capacity and high food-safety standards for some processors, the sector needs support for meeting standards and adapting to market requirements. There is an increased risk of increasing imports without vertical integration, especially milk and (frozen) meat.

While significant progress has been made in data collection in recent years, fundamental critical indicators for preparing an EU-oriented agricultural policy are still lacking.

The Paying Agency remains the main weakness at the administrative level, especially in ensuring its operations are under clear procedures and a secure IT system for control and payment.

At the level of the Veterinary Agency, the missing disease control and surveillance program are hindering the exports. A classification of all food establishments and establishments handling by-products of animal origin based on the EU **acquis** is missing. An operational system for the collection and disposal of animal by-products is also missing. There is also a weak institutional capacity to monitor and control the market and use of the PPP, including the imports.

6.3 Main identified problems – Agricultural land and natural resources

Kosovo has amazing landscapes provided by the mountains and large areas covered by forests. The natural resources (water, soil, and air) are under low pressure due to extensive agricultural land management (low chemical inputs, low grazing density, and limited intensive livestock farms).

The wealthy biodiversity is sustained by the forests and extensive grasslands, but the coverage of protected areas is relatively small (at least compared with EU countries), and there are no management plans in place. Potential areas for Natura 2000 have been identified.

GHG and ammonia emissions are low due to the underdeveloped livestock sector. Extensive farming may also be seen as climate change adaptation farming. Afforestation is seen as a solution for carbon sequestration, having the potential to address soil erosion issues and increase the biodiversity associated with forestry.

The challenges are the agricultural intensification in the low-land and the land abandonment in the remote areas. Intensification leads to low water quality and affects biodiversity, while land abandonment threatens the high natural value grasslands. Despite their high quality, soil erosion is a widespread phenomenon. Illegal construction on agricultural land is continuing to be an important problem. Sand and gravel mining is often not regulated, and the mining sites are not restored appropriately.

Organic farming has the advantage of export demand and higher prices. Still, the national system for inspections and certification is not yet functional, and the producer is not receiving any extra payments.

The leading institutional gaps are the lack of environmental legislation, weak law enforcement, and the lack of international agreements on environmental protection. On the other hand, promoting environmental conservation through imposed farming restrictions and requiring costly investments without offering the private sector the means to respect the legislation would be counterproductive. At the same time, there is a wide range of good practices that do not require any specific financial investments.

Policy formulation suffers from a lack of environmental baseline indicators, while awareness of the environment is low, especially climate change mitigation and adaptation. The subsidy schemes are not linked with good agricultural and ecological conditions, and no agri-environment schemes are implemented. With no legislation on manure management, the rural development grants for farmers are the most advanced policy instruments in guiding water protection through proper manure storage. The rules for fertilizers and pesticide field application are not formulated; the practice is not controlled.

Forestry can have its strategy under preparation; consequently, the priorities shall be formulated in this strategic document.

For Kosovo, except for the areas affected by sand and gravel mining, environmental care should be more about protection than restoration. The country can keep up with the pace of greening the agriculture policy for the benefit of its citizens, so long as nature is in good status.

6.4 Main identified problems – Rural areas and socio-economic infrastructure

The rural economy has the opportunity to develop, counting on the natural resources (such as fertile soils and extensive forests), beautiful landscapes, and traditions in food processing, matching with a growing request for traditional products and rural tourism.

Starting a business is relatively easy in Kosovo, while new enterprises may still count on the availability of the labor force. The external solid market demand for medicinal and aromatic plants and non-wood forests products led to the development of collection centers and consolidated trade channels.

There is a good experience at the central and local levels for preparing and implementing local development initiatives (including the preparation of the Local Development Strategies) and a growing interest in this approach.

Still, the economic development of the rural areas remains very poor. The high share of non- registered businesses and labor force, the high level of migration from rural areas (especially of the young people), lack of financial capital for investment, unavailable qualified labor force, and weak rural infrastructure (including social infrastructures, such as kindergartens) are essential obstacles in the development of the rural economy. Waste management lacks, especially recycling, while illegal dumping of waste along roads and water courses is common.

Some other specific weaknesses worth being mentioned: that rural tourism is not developed as agro-tourism, drying, storing, packing, and labeling value-chain shortages on medicinal and aromatic plants and non-wood forests products, and weak marketing of the local products.

At the administration level, the Paying Agency is missing adapted procedures for ensuring the full-time functionality of the LAGs. Furthermore, LAGs are not yet empowered nor technically ready to launch open calls for selecting projects that should fit the local priorities.

Advisory services are not yet correctly addressing the issues of rural business. Local NGOs (on environment protection, women empowerment, sustainable development, etc.) are a valuable resource that may be efficiently involved in the development of the rural areas.

6.5 Main problems at the level of public institutions

Kosovo is a potential candidate country for the EU and signed the Stabilization and Association Agreement (SAA), which entered into force in April 2016, providing a comprehensive framework for structured political dialogue and intensification of economic relations. In this context, Kosovo has to increase the competitiveness of its agriculture to resist the open-market pressures while adopting EU **acquis** which include numerous standards. THEREFORE, the EU **acquis** brings institutional challenges related to transposition and institutional capacity to monitor and control the new legislation. Also, it challenges the private sector in covering the costs of new investments, their further operation, and maintenance.

A horizontal gap relates to the digitalization of the institutions (including their relationship with the public/farmers) and the weak inclusion of the innovation into knowledge transfer networks.

In agriculture and rural development, the central gap is related to the proper operation of the Paying Agency (Agency for Agricultural Development). The weak institutional capacity and the lack of a reliable supervision system for ensuring compliance with the internally approved procedures jeopardize the institution's role in offering financial support for farmers. IT systems should be

strengthened towards a full IACS[23], guaranteeing a full undeletable log-book of all users' activity and should be linked with other national databases to allow cross-checks. The Paying Agency remains the main weakness at the administrative level, especially in ensuring its operations are under clear procedures, and a secured IT system for control and payments.

Furthermore, an ex-post monitoring system for the implemented projects is missing, leaving the authorities with no clear situation regarding the proper use of grants after the contracts are concluded / the last payment is made.

Additionally, the impact evaluation of the grant measures should be carried out in due time, together with the sector studies outcomes and the needs identified in the national strategy for agriculture, rural development, and forestry. This will lead to changes in the IPARD-like funding mechanism, especially on the provisions related to eligibility, scoring, and monitoring system.

The simplified Land Parcel Identification System requires a regular update due to the dynamic of the land changes and an upgrade that should prohibit requesting direct payments from more farmers for the same plot.

Local administration subsidies and grant schemes should become part of the Local Development Strategies and managed through Local Action Groups, thus ensuring consistency with the national policies while still addressing local needs.

There is no conditionality linked with direct payment yet, so farmers are not yet encouraged to adopt new standards. Nevertheless, along with new requirements for direct payments, a Farm Advisory System (FAS) should be set up, coordinating and delivering proper advisory to adopt the new standards.

Other vital gaps are related to the institutional capacity for accreditation of the certification and inspection bodies on organic farming and the lack of legislation and support schemes for producer organizations.

Regarding food safety, veterinary and phytosanitary policy, except for poultry meat, the lack of disease control and surveillance programs is blocking the exports and, with this, the development of both the livestock sector and the meat products food industry.

A classification of all food establishments and establishments handling by-products of animal origin based on the EU **acquis** is missing. A new rendering plant became technically functional, but there is no operating system for collecting and disposing animal by-products.

Furthermore, with no rules linking animal identification and registration systems with direct payments (for the future IACS), the use of this database is not incentivized. Proper registration of animal movements is peculiar.

While significant progress in gathering data has been made in the last years, essential baseline indicators for preparing an agricultural policy EU oriented are still missing.

As concerns phytosanitary **issues**, institutional capacity building is needed to monitor and control the market and use of the PPP, including the imports.

[23]IACS – Integrated Administration and Control System, meaning the secured IT system that incorporates all the details and verifications for payment claims, starting from the submission of the requests until registering in accountancy

On **fisheries**, there are significant gaps in preparing an inventory of fish species and aligning the market policies with the EU **acquis** (e.g., not allowing on markets forbidden species). Further, a control system should be implemented.

The overall vision for agriculture and rural development in Kosovo is to make a balanced contribution to the economy, environment, society, and cultural well-being of rural areas and Kosovo as a whole through an efficient and profitable partnership between the private sector, central and local government and local communities in the European context.

7. STRATEGIC OBJECTIVES OF THE STRATEGY FOR AGRICULTURE AND RURAL DEVELOPMENT

The National Strategy for Agriculture and Rural Development for the period 2022-2028 reflects the need for the development of the agricultural sector and rural areas to compete in the markets of the European Union and regional markets through measures to increase the efficiency of agricultural production, processing, and marketing, and to build appropriate, effective public and private institutions; to improve farm incomes; to ensure that consumers have access to safe and healthy food; to optimize the use of scarce land, forest and water resources in an environmentally sustainable manner; and to build sustainable rural communities through sustainable rural development. According to the summarized analyzes, SWOT analysis, sectoral analysis, and strategic and specific objectives are defined.

7.1 Strategic Objective 1: Increasing the competitiveness of the agri-food sector and improving the efficiency and sustainability of farm production

Specific Objective 1.1: Supporting sustainable farm revenues and resilience to increasing food safety
Specific Objective 1.2: Increasing competitiveness and improving market orientation, including a greater focus on research, innovation, technology, and digitalization
Specific Objective 1.3: Improving the farmers' position in the value chain

7.2 Strategic Objective 2: Sustainable management of natural resources (land, forests, and water)

Specific Objectives 2.1: Contributing to mitigating and adapting to climate changes as well as renewable energy
Specific Objectives 2.2: Promoting sustainable and efficient land, water, and air management **Specific objectives 2.3:** Biodiversity protection, enhanced ecosystem services, and conservation of habitats and landscapes

7.3 Strategic Objective 3: Supporting businesses in rural areas and enhancing employment and social infrastructure

Specific Objective 3.1: Promoting employment, growth, social inclusion, and local development in rural areas, including bio-economy and sustainable forestry development
Specific Objective 3.2:: Improving society's requirements for food and health, including safe, nutritious, and sustainable food, reducing food waste, and animal welfare
Specific Objective 3.4: Promoting gender equality, including women's participation in agriculture and social inclusion of vulnerable communities and groups

7.4 Strategic Objective 4: Comprehensive institutional and sector reform to establish efficient public services

Specific objective 4.1 Full re–organization and functionalizing of ADA as an IPARD Agency
Specific objective 4.2 achieving entrustment for budget management and implementation of IPARD III program measures
Specific objective 4.3: Digitalization of the sector and transfer of knowledge
A summary of the problems described above and their relationship to the identified objectives are presented below:

Problems and their causes		Strategic and specific objectives
• Low added-value per annual working unit due to farm fragmentation / small-scale farming; • limited local farms/agri-food processors integration; • old and insufficient agricultural equipment and machinery, weak agricultural infrastructure (e.g., irrigation systems, agricultural roads, etc.); expensive inputs, and difficult access to financial capital; • insufficient storage facilities; • underdeveloped advisory system.	⇨	**Strategic objective I** - Increasing the competitiveness of the agri-food sector and improving the efficiency and the sustainability of the farm production • Specific objective 1.1: Support viable farm income and resilience throughout the territory • Specific objective 1.2: Enhance competitiveness and market orientation • Specific objective 1.3: Improve farmers' position in the value chain
• Lack of implemented policies on GHG and ammonia emissions; • No good environmental and climate conditioning for accessing direct payments; • Insufficient policy formulation and implementation on land consolidation and illegal constructions on agricultural land; • Poor farm infrastructure and regulatory framework for manure management, chemical fertilizer, and pesticides use; • Lack of management plans (for protected areas) with conservation measures related to agriculture; • agri-environment measures not yet implemented.	⇨	**Strategic objective II** - Sustainable management of the natural resources (such as soils, forests, and water) • Specific Objective 2.1: Contribute to climate change mitigation and adaptation, as well as renewable energy • Specific Objective 2.2: Foster sustainable and efficient management of resources such as water, soil, and air • Specific Objective 2.3: Protection of biodiversity, enhanced ecosystem services, and preservation of habitats and landscapes

• The high share of the non-registered business and labor force; • The high level of migration from rural areas (especially of the young people); • lack of financial capital for investment; • Unavailable qualified labor force, and weak rural infrastructure (including social infrastructures, such as kindergartens); • Waste management and especially recycling are lacking, while illegal dumping of waste along roads and water courses is a common practice; rural tourism is not developed as agro-tourism; drying, storing, packing, and labeling value-chain shortages on medicinal and aromatic plants and non-wood forests products; • Weak marketing of the local products. • According to the 2014 Census of Agriculture, only 11% of women-owned houses/apartments, while only 4.9% of agricultural land was owned by women or only 6,388 out of 130,436 properties. There are cases when social norms prevent women from exercising their right to property, including inheritance, limiting their access to finance, and weakening their economic situation. However, the Minister has taken all measures to ensure the participation of women in the decision-making process at all stages of the preparation and implementation of this Strategy.	⇨	**Strategic objective III** – Support the rural area businesses and increase the employment and the social infrastructure • Specific Objective 3.1: Promote employment, growth, social inclusion, and local development in rural areas, including bio-economy • Specific Objective 3.2: Improve the response of agriculture to societal demands on food and health, including safe, nutritious, and sustainable food, reducing food waste, as well as animal welfare • Specific Objective 3.3: Promoting gender equality, including women's participation in agriculture and social inclusion of vulnerable communities and groups

• Weak institutional capacity of the Paying Agency in regards to procedures and IT system for control and payments; missing ex-post monitoring system for the implemented projects; gaps in the institutional capacity for accreditation of the certification and inspection bodies on organic farming and lack of legislation and support schemes for producer organizations; • Missing disease control and surveillance programs; no links between the animal identification and registration systems with direct payments (for the future IACS); peculiar registration of animal movements; institutional capacity building needed to monitor and control the market and use of the PPP, including the imports; • Essential gaps in preparing an inventory of fish species and aligning the market policies with the EU **acquis**; • A horizontal gap is related to the digitalization of the institutions (including their relationship with the public / farmers) and the weak inclusion of the innovation into knowledge transfer networks.	⇨	**Strategic objective IV** - Comprehensive institutional and sector reforms to create efficient public services - • Specific objective 4.1: Full reorganization and functionalizing of ADA as an IPARD Agency • Specific objective 4.2: Achieving entrustment for budget management and implementation for IPARD III program measures • Specific objective 4.3: Digitalization of the sector and transfer of knowledge

8. ANNEXES

8.1 BUDGET ALLOCATION PER GENERAL OBJECTIVES

General objectives / Years	2022 Budget (euro)			2023 Budget (euro)			2024 Budget (euro)		
Increasing competitiveness of the agri-food sector and improving the efficiency and the sustainability of the farm production	**Sub/Grant**	**Goods/Services**	**Capial inv.**	**Sub/Grant**	**Goods/Services**	**Capital inv.**	**Sub/Grants**	**Goods/Services**	**Capital inv.**
	54,032,022		6,380,769	54,477,022		6,130,000	54,477,022		7,130,000
Sustainable management of the natural resources (such as soils, forests, and water)	427,220			427,220			427,220		
Support for the rural area's businesses and increasing the employment and the social infrastructure	6,500,000		350,000	6,500,000		350,000	6,500,000		350,000
Comprehensive institutional and sector reforms to create efficient public services		1,208,965			998,965			998,965	
Total	**60,959,242**	**1,208,965**	**6,730,769**	**61,404,242**	**998,965**	**6,480,000**	**61,404,242**	**998,965**	**7,480,000**

8.2 INDICATORS

No.	Objective/Indicator	Basic value (2019)	Mid-term target (2024)	Final target Year (2028)
I.	**Strategic Objective 1 - Increasing the competitiveness of the agri-food sector and improving the efficiency and sustainability of farm production**			
1	Impact indicator 1.1: Gross value added	477 mils. euro	+10%	+20%
2	Impact indicator 1.2: Additional work (in annual work units)	82,657 AWU	+3%	+5%
3	Impact indicator 1.3: Labor productivity	5,771 euro/AWU	+6.8%	+14.28%
I.i	**Specific objective 1.1 - Support for sustainable farm income and resilience to increase food security**			
1	Production indicator 1.1: Number of beneficiaries from the total number of agricultural economies	44.40%	50%	60%
I.ii.	**Specific objective 1.2 - Increase competitiveness and improve market demand orientation by focusing on research, innovation, technology, and digitalization**			
1	Production indicator 1.2: Agri-food trade balance (export/import ratio)	1:11.68	1:9	
I. iii.	**Specific objective 1. 3 - Improving the position of farmers in the value chain**			
1	Production indicator 1.3: Net value-added for AWUs in agriculture	1,428 euro	1,571 euro	1,728 euro
II.	**Strategic Objective 2 - Sustainable management of natural resources**			
1	Impact indicator 2.1: Soil erosion by water (Part of the total land cover with strong and extreme erosion)	23.45	-2%	-5%
2	Impact indicator 2.2: High natural value agriculture (HNV).	N/A	EU average: 33.14% of total SBSH	EU average: 33.14% of total SBSH
3	Impact indicator 2.3: Water quality - Nitrates in groundwater	N/A	EU Average 50 mg NO3 per liter/annual average	EU Average 50 mg NO3 per liter /annual average

II.i	**Specific objective 2.1 - Support in mitigating and adapting to climate change, such as the use of renewable energy**			
1	Production indicator 2.1: Part of GHG emissions from agriculture	*6%*	*<6%*	*<6%*

II.ii.	**Specific objective 2.2 - Promoting sustainable and efficient resource management (land, water, air)**			
1	Production indicator 2.2.1: Gross nutrient balance	N/A	EU Average 44kg/N/ha	EU Average 44kg/N/ha
2	Production indicator 2.2.2: Part of the UAA with very strong soil erosion from water	7.35%	-2%	-5%
3	Production indicator 2.2.3: Ammonia emissions from agriculture	N/A	EU Average: 93% of agricultural sources	EU Average: 93% of agricultural sources
II.iii.	**Specific objective 2.3 - Protecting biodiversity, improving ecosystem services and conserving habitats and landscapes/nature**			
1	Production indicator 6.1: Number of UAA ha according to agri- environmental and climatic schemes	0	10	50
III.	**Strategic Objective 3 – Developing businesses in rural areas and increasing employment and social infrastructure**			
1	Impact indicator 3.1: Rural employment rate	N/A	EU Average: 73.07%	EU Average: 73.07%
2	Impact indicator 3.2: Rural poverty rate	N/A	EU Average: 20.90%	EU Average: 20.90%
3	Impact indicator 3.3: Rural GDP per capita	N/A	EU Average: 20,067 euro/inhabitant	EU Average: 20,067 euro/inhabitant
III.i.	**Specific objective 3.1 - Promoting employment, growth, social inclusion, and local development in rural areas, including the bio-economy**			
1	Production Indicator 7.1: Number of jobs in rural areas in the non-agricultural sector	N/A	EU Average: 88%	EU Average: 88%
2	Production indicator 7.2: Number of LAGs	12	20	30

III.iii.	**Specific objective 3.2 - Improving societal requirements for food and health, including safe, nutritious, and sustainable food, reducing food waste, and animal welfare**			
1	Production indicator 8.1: Sales of plant protection products	759.359/Eur	≤ 759.359/euro	≤ 759.359/euro
2	Production indicator 8.2: Sales of veterinary antimicrobials	379.704/Eur	≤ 379.704/euro	≤ 379.704/euro
III.iii.	**Specific objective 3.3: Promoting gender equality, including women's participation in agriculture and social inclusion of vulnerable communities and groups**			
1	Impact indicator: Agricultural lands owned by women	4.9 %	10%	20%

IV.	**Strategic Objective 4 - Comprehensive institutional and sectoral reform to create efficient public services**			
1	Impact indicator 4.1: Level of transposition and implementation of relevant EU legislation at MAFRD level	30%	50%	100%
IV.i	**Specific objective 4.1 - Reorganization and full functioning of ADA as IPARD III Agency**			
1	Impact indicator 4.1: The Agency is restructured and operational as required by EU Directives. IPARD Agency has sufficient and prepared staff and full functional independence in fulfilling its mission.	**0**	**100%**	**100%**
2	Impact Indicator 4.2: Internal procedures approved and implemented during all PPD and RDP implementation stages.	**0**	**100%**	**100%**
IV. i.	**Specific objective 4.3 - Achieving of confidence for budget management and implementation for IPARD III program measures**			
1	Production indicator 9.1: Level of achievement of confidence in budget implementation tasks for 4 IPARD measures	0	50%	100%
V.	**Specific objective 4.2 - Digitalization of the sector and transfer of knowledge and innovation**			
1	Impact indicator 5.1: Level of digitalization of MAFRD, ADA and other institutions coordinated by MAFRD	40%	70%	100%

2	Impact indicator 5.2: Level of establishment of the Agricultural Knowledge and Innovation System (AKIS)	10	50%	100%

Templates /passports of impact and performance indicators should follow the EU CAP indicators presented by the European Commission: https://agridata.ec.europa.eu/extensions/DataPortal/cmef_indicators.html

8.3 Identification of needs and their justification in the frame of set objectives

While there are obvious positive trends in agriculture, forestry, food processing, and rural areas achieved in the past period, still agricultural development and rural development are hampered by structural difficulties and inefficiencies which need further intervention for the period 2022-2028, as identified in SWOT. The SWOT analysis identified several needs to be addressed by this Strategy.

8.4.2 Identification of the needs – Increasing the competitiveness of the agri-food sector and improving the efficiency and the sustainability of the farm production

Need 1.1: Ensuring farm resilience

Entering a market competition with CEFTA and EU countries without previously modernizing the agri-food sector is putting tremendous pressure on all farms and especially on those which are market-oriented. Ensuring support farm income in **direct payments per utilized area and livestock is a matter of giving a chance for the domestic farms to survive**. Extra transitional income support is needed for specific sectors considered difficult.

Fruits and vegetables are particularly market-related sectors; thus, additional support income is needed.

At the same time, **minimum thresholds for the direct payments** per sector are necessary, avoiding offering farm support for subsistence farming (which is not market-related).

Need 1.2: Encouraging medium-size farms and their market participation

Spending public funds as direct payments and grants without addressing the main sector shortcoming, which is small-scale farming, is counterproductive. There is a need to target the public support towards medium-sized farms and encourage small-scale farmers to increase their size. Higher direct payments and prioritization on grants for medium-size farms and requiring an increase of the farm size by the end of the grants` implementation should be considered.

It should be acknowledged that grants are ultimately for the development of the sector and the economy. Thus, **increased formal market participation of the grants` beneficiaries is needed,** thus making visible the grants' impact on the economy (e.g., making their business plans subject to controls during the ex-post monitoring/being subject to tax administration controls for the valorization of their production).

Need 1.3: Encouraging the higher added-value and market demand sectors.

Not all sectors have the same impact on the economy. Increasing the net added value, thus competitiveness, and exports/import substitution may be more effectively done through unique policy mechanisms, targeting some sectors, mainly **fruits and vegetables, berries, medicinal and aromatic plants, and livestock**. Other sectors may join this list, such as vineyards if processing and branding progress through time.

These sectors still have the potential for job creation, as they are more labor-intensive.

At the same time, **organic farming** should be seen as an environmental-friendly production system delivering high-quality products and as a sector with steady buoyant export demand.

Need 1.4: Setting-up young farmers as farm managers

Young farmers are the engines for sector modernization. They are more open to innovation/applying of new technologies and adopting good environmental practices. With a sense of market-oriented production, young farmers generally lack financial means, land access, and specialized training. Without special policy instruments, the risk of migration will remain very high. Special support schemes are needed.

Need 1.5: Increasing labor productivity

With insufficient and outdated mechanization and equipment, unmodernized technologies, and weak farming skills, the labor productivity in farms remains very low. In the next seven years, the **sector's competitiveness cannot rely on low-cost labor,** as its availability is shrinking and the labor cost is increasing. **Precision agriculture/digitalization must be encouraged.**

Need 1.6: Facilitating access to financial capital

Difficult access to loans due to lack of collateral pushes farmers toward a micro-financing system with high-interest rates or simply away from a real chance of accessing loans. Financial instruments in agriculture, covering both guarantee schemes for rural credits and risk-sharing loans, will have the benefits of facilitating access to loans (reducing the demand on high collaterals) and advance payments for grants and lowering the interest rates for the loans.

Need 1.7: Optimizing the supply chains in agriculture

The supply chain's shortcomings are lack of machinery and equipment, storage, and post-harvest facilities. Cheap imports from more competitive countries and/or with higher subsidies are blocking the local production integration with the local processors, especially in the case of milk and meat products. Short-supply chains must be better valorized.

Need 1.8: Rehabilitation, modernization, and extension of the irrigation and drainage system

Kosovo has a comprehensive Master Plan for Irrigation (MPI), recently prepared (2020). The estimated costs of investments are extremely high, much beyond the national budget capacity; thus, a needs ranking is necessary. The primary identified MPI needs are as follows:

- Support the preparation of pre-feasibility, feasibility, and technical designs for the six irrigation and drainage systems, followed by appropriate investments;
- Capacity building (including allocating suitable human resources by MAFRD) and technical assistance for institutions (with a focus on ensuring the sustainability of the investments);
- Support for farmers, water users` associations, water companies, and municipalities in priority areas for investments and the prioritized investments, as mentioned in the MPI Action Plan, and preparing the WUA for implementing grants for the rehabilitation of the irrigation infrastructure.

For a proper consideration of the needs stated above, setting up a national agency for managing the irrigation and drainage systems under the MAFRD coordination will increase the administration's commitment to the investments related to agriculture (currently, the water agencies are under the ministry for economy and interest for investing in the infrastructure for agriculture is relatively low).

Need 1.9: Risks management

The farming sector is highly exposed to weather conditions. The risk of losing the yield and thus the business must be addressed through **affordable insurance schemes**, covering at least drought, floods, hail, and early and late frost. At the same time, **extensive farming** is also a form of risk management; local breeds and traditional shepherding are worth being sustained in remote areas, where intensive agriculture would be difficult to introduce. Regarding **climate change adaptation practices**, advisory services should be more involved in developing awareness campaigns and delivering training sessions. The business plans for grants should include actions related to climate-change mitigations.

Need 1.10: Setting up producer organizations

Gaining bargaining power for small and medium-size farmers may be implemented only through association. Farmers are somehow trapped between the interest of the input dealers and the processors/dealers for agricultural products. **The first step would be to have the legislation in place for the producers' groups.** Awareness, training, additional income support schemes, and prioritization for grants are part of the actions that should stimulate the setting-up of new producers` organizations.

Need 1.11: Alignment with EU standards

The alignment may be implemented only gradually, starting with the legislation. However, it is not realistic to consider sufficient the capacities of institutions and the private for an actual implementation immediately after new legislation is approved. **Grace periods are needed** (legislation to be approved, by entering in force to take place in 1 – 3 years), thus allowing the institutions to develop their monitoring/controls systems and for the private sector to make the relevant investments (while public grants and training sessions should be available).

Climate and environment, public health, animal health, plant health, and animal welfare standards - as mentioned in the EU CAP "rules on conditionality" (Annex III of the regulation establishing rules on support for strategic plans to be drawn up by the Member States under the Common Agricultural Policy) are the most important and have the potential of opening the path for accessing EU markets and preparing the country for smooth technical negotiations with the EU for its future accession.

Preparation of a plan for controlling the residues in meat and animal products and control programs for animals' diseases should be prepared and implemented to enable **the export of live animals and animal products.**

There is a need to link the grants with meeting standards obligations. The challenges to standards alignment concern both the farms and agri-processing plants. Global GAP (for farmers) and HACCP (for AVUK) are also important for ensuring market access. The rendering plan needs to become operational.

Need 1.12: Promoting short-supply chains and marketing the local products

There is a **clear opportunity given by the consumers' preference for domestic products. Branding and promoting short-supply chains** should stimulate the consumption of high-quality local products, avoiding high carbon emissions due to transport and storage while encouraging local producers. Consumers need more information about the country's provenience of the agri-food products / their ingredients (including milk and meat products). Awareness campaigns are necessary. The government should use the benefits of vertical integration of supply chains to replace imports.

Need 1.13: Strengthening the advisory services and including the innovation as an essential part of the knowledge transfer

With a largely dominant small-scale farming, private consultancy and farmers' organizations are not currently having the capacity to provide means for access to information and innovation for this category. The human and financial resources for advisory should reflect this need. It remains the state's duty to do so.
Emerging highly specialized training private bodies should be considered (e.g., IADK).
The involvement of the universities and research institutes, the farmers' organizations, and NGOs is not sufficiently encouraged.

8.4.3 Identification and assessment of needs - Sustainable management of the natural resources (soils, forests, and water)

Need 2.1: Gradual alignment with the EU environmental standards

Both farms and agri-food processing units are lagging in implementing environmental standards. Manure management, wastewater treatment from milk processing plants, and waste /animal by-products (e.g., from slaughterhouses and meat processing plants) remain an ongoing problem.
Extending the public sewage systems and building wastewater treatment plants are necessary, thus preventing untreated effluents from being discharged into the rivers.

Need 2.2: Maintenance of the high biodiversity associated with agricultural land

Extensive management of grasslands led throughout the years to high natural value farmland. Nowadays, traditional farming is becoming unattractive for the young generation. At the same time, the blocked export of sheep (due to the absence of programs for disease control) keeps the sector under a low interest for newcomers. In this context, invasive species are lowering the quality of grasslands, while some grassland has been naturally afforested. **Supporting traditional shepherding is essential for the grasslands' biodiversity** and an opportunity that links the environment with traditions and with tasty local food.

Need 2.3: Adopting good practices for the conservation of natural resources, such as air, soil, and water

Kosovo does not yet have any policy intervention to promote environmentally friendly agricultural practices systematically. Looking towards the EU CAP, the mechanism is simple: **Good Agricultural and Environmental Conditions (GAECs)** are defined by each country based on a set of standards, which includes biodiversity, soil, and water protection, and linked with any area payments, including direct payments and agri-environment compensations. GAECs are not meant to require investments in farms but to stimulate farmers to adopt good practices. On this path, Kosovo should first design a set of simplified GAECs and implement awareness campaigns among farmers with the support of the public advisory system. In case of non-conformities, instead of penalties for farmers, they should receive remarks on how the non-infringed GAEC would help maintain in a good status the natural resources of the farm, at least in the first years of the system implementation.
Regarding water nutrient pollution from agricultural sources, the high level of nitrates is caused by improper manure management and chemical fertilizer use. Kosovo has not yet transposed the Nitrates Directive, which is considered one of the most difficult to be implemented even by the old

Member States. **Progress in the prevention and reduction of the nitrates pollution originating from agricultur**e **will initially require the elaboration of a Code of Good Agricultural Practices and a widened promotion of its recommendations** through the public advisory system. **Good practices in manure management** should also be encouraged to reduce ammonia emissions. Grants for farm modernization should promote investments in proper manure storage, but in the next seven years will be too early to conditionalize direct payments by this investment.

According to its commitments to the Green Agenda for Western Balkans (aligning its actions towards the ambitions of the Farm-to-Fork Strategy) and in line with the EU Water Framework Directive and Sustainable Use of Pesticides Directive, awareness should be raised on appropriate storage and use of pesticides, as well on the use of the veterinary medicines/antimicrobials.

Need 2.4: Encouraging organic farming

Kosovo must establish a functional accreditation system for organic farming inspections and certification.

The opportunity of an increased market demand should not be missed; thus, **farmers should be encouraged to enter into conversion to organic farming through appropriate compensation schemes.**

Need 2.5: Allocating proper human and financial resources for the 2021–2030 strategy on forestry. According to the SWOT analysis included in this Strategy, a distinct Strategy for forestry for 2021 – 2030 is under preparation. **Allocating proper human and financial resources for its implementation is vital.**

Need 2.6: Maintenance of the genetic resources from agriculture

Local breeds of sheep, goats and milking cows have low productivity, but they adapt well to the local conditions. The farming systems involving local breeds led to high natural value grasslands. The use of local breeds demonstrates resilience and may be considered a form of traditional adaptation to climate changes. The importance of their maintenance is also linked with the traditional rural landscape and tourism potential.

Need 2.7: Climate change mitigation and adaptation

Carbon sequestration is the most straightforward approach to climate change mitigation, making afforestation the most appropriate measure.

Extensive grasslands should be protected as they act as important carbon sinks; extensive grazing proved to reduce ammonia emissions significantly.

Adoption of good practices for increasing soil organic matter/carbon sequestration needs to be encouraged through awareness campaigns and training. Conservation agriculture practices (no plowing or reduced tillage), usage of cover crops, maintenance of landscape elements, and banning stubble burning are part of the solutions.

Climate change adaptation should consider the rehabilitation, modernization, and extension of the irrigation and drainage systems, acclimatized crop varieties, and better risk management through insurance schemes.

Local breeds are the solution to the climate change adaptation in remote areas (where intensive agriculture would be complex).

Need 2.8: Consolidating the Advisory System for delivering information, advisory, and training focusing on natural resources conservation.

Public advisory services should prioritize the involvement of research institutes, universities, and environmental NGOs in preparing and implementing awareness campaigns and training focusing on environment protection and climate change mitigation and adaptation. The focus should be on the envisaged simplified GAECs, foreseen agri-environment measures, and organic farming.

Need 2.9: Ensuring agriculture-related environmental baseline indicators

The environmental impact evaluation in agriculture is complex without baseline indicators and policy formulation. **The baseline indicators listed in the EU framework for monitoring and evaluation of the CAP[24] should be a reference for the MAFRD institutional efforts to provide valuable data for policymakers**, proving positive steps towards EU **acquis** alignment on rural development/chapter 11 for EU negotiations.

Need 2.10: Preparing GIS soil maps

With a methodology approved and the availability of various data, such as from CORINE Land Cover, **preparing GIS soil maps that should lead to the delineation of the areas with natural constraints for agriculture will require numerous soil tests,** sufficient to cover the soil characteristics variations throughout the country.

Need 2.11: Elaboration of an Action Plan for the implementation of the Western Balkans Green Agenda

Western Balkans Green Agenda is very ambitious in terms of environmental protection, while the MAFRD is not having sufficient specialized staff on this topic. **An action plan with clear actions, responsibilities, responsible bodies, and deadlines should be prepared.** Suitable human resources and enough financial allocation should be considered.

8.4.4 Identification and assessment of needs - Support for the rural area's businesses and increase the employment and the social infrastructure

Need 3.1: Diversification of the local agricultural production

The local rural economy needs diversification for its development and resilience capacity. Aquaculture, beekeeping, and small-scale farming (e.g., producing eggs and meat) can generate farm income and increase the rural economy's ability to absorb financial crises or natural hazards.

***Need 3.2: Setting-up up the new food processing units and modernizing the existing on-farm and* artisanal ones.**

Traditional food processing has a high demand on the domestic market, also triggered by local tourism development. **The needs are related to equipment for agri-food processing and storing** (including cooling storage, packaging labeling equipment), and marketing. Furthermore, training sessions for food-safety standards, accounting, and marketing are necessary.

Need 3.3: Consolidation of the MAPs and NWFPs collection centers

MAPs and NWFPs are export-oriented. T**he supply chain shortcomings are related to post-harvest facilities and equipment,** including dryers and cooling storage, especially for the small collection centers.

[24] https://agridata.ec.europa.eu/extensions/DataPortal/cmef_indicators.html

Need 3.4: Encouraging sustainable rural tourism and especially agro-tourism

Rural tourism stimulates the local economy through increased consumption. For the tourist expenditures to remain in the local economy, the food must come from the nearby area or, even better, from the host. **Agro-tourism is the best way to add value to local agri-food production.** There is a need to encourage the farms to diversify their activities towards small-scale rural tourism. Also, there is a need for a registration system for rural tourism operators (to be established in collaboration with the Ministry of Industry, Entrepreneurship, and Trade).

Need 3.5 Development of the rural infrastructure

Rural, forestry, and agricultural roads, water and sewage systems, electricity, and waste management are part of the basic infrastructure necessary for sustaining the local economy and ensuring good living conditions. Kosovo is in high deficit for all the above, plus the social infrastructure (e.g., kindergartens, facilities for cultural events, etc.).

Need 3.6 Promotion of the local development initiatives

Despite the good experience in LEADER approach, the LAGs still need support for the preparation of the Local Development Strategies 2022 – 2028 and their implementation. To separate the management function from the projects` selection function, LAGs should receive training from experienced LAGs from the EU Member States.
At the same time, the Managing Authority staff and the Paying Agency should receive training on the implementation system that ensures a continuous cash flow for the LAGs running costs.

Need 3.7: Ensuring training for rural entrepreneurs

Starting a new business brings various challenges. The needs are numerous, from the drafting of a realistic business plan, the skills in preparing bad and breakfast, ensuring food-safety rules, and keeping clear accountancy for the tax administration**. They should receive a proper response through training.**

Need 3.8: Strengthening the MAFRD capacity to monitor the collection of wild MAPs and NWFP according to the issued licenses

The sustainability of the collection centers is a matter of the availability of the resources in the following years. For the biodiversity not to be disturbed and the wild vegetation to recover, rules for collection MAPs and NWFP are set, and licenses are issued. **The MAFRD needs to establish a solid on-the-spot monitoring system to ensure that the given rights are respected and over-harvesting is avoided.**

Need 3.9: Implementing awareness campaigns and controls on illegal waste dumping

Illegal dumping of waste is a widespread phenomenon that needs to be addressed. **Awareness campaigns stimulating the sense of community and respect for the environment and controls for applying fines to those infringing the rules are necessary actions.**

8.4.5 Identification and assessment of needs - Comprehensive institutional and sectoral reforms to create efficient public services

Need 4.1: Skilled staffed and digitalization of the MAFRD and its coordinated bodies

Having **highly skilled (and trained staff) and digitalization of the MAFRD and its coordinated bodies** (especially ADA and AVUK) are the top horizontal needs. **The digitalization** should include farmers, agro-food processors, input dealers, etc.

Need 4.2: EU acquis alignment

As a potential candidate country to the EU and with signed the Stabilisation and Association Agreement (SAA), **the institutional development is towards EU acquis alignment, thus having as reference the negotiation chapters 11, 12, and 13.**

Need 4.2.1: EU acquis alignment on negotiation Chapter 11

Need 4.2.1.1: Consolidating the Paying Agency

There is an immediate need to consolidate the Paying Agency. Extra staff, reliable IT systems, more robust procedures (including ex-post projects monitoring) and internal control unit, and continued training are prerequisites for a more vital agency. IACS and its LPIS must be regularly updated, while the connectivity of the IACS with the Animal Register must be ensured, thus allowing administrative checks for direct payments. At the same time, there is a need for training and procedures for the new envisaged measures (such as rural infrastructure, producers' groups, agri-environment, organic farming, etc.).

Need 4.2.1.2: Consolidating the Managing Authority

The **Managing Authority for the rural development program** (responsible for the IPARD III-like program), together with the established working groups, should valorize its staff experience, the value-chain shortcoming as identified by the sector studies prepared in 2021 and the identified needs as mentioned within this Strategy, **has the opportunity of delivering a well-elaborated national agricultural and rural development program. Benefiting the experience of the nearby countries would help in program preparation and implementation. There is a strong need for know-how for the new envisaged measures and for properly implementing local-led development /LEADER initiatives (from the EU MS Managing Authorities). Furthermore, the monitoring and evaluation system needs to be more oriented towards pointing to the performance achieved through public spending by using result indicators.**
A unit for IPARD III technical assistance should be included within the Managing Authority, thus responding to further needs on IPARD III-like program management, monitoring, and implementation.

Need 4.2.1.3: Consolidating other MAFRD departments

Other MAFRD departments that are in urgent need of consolidation (properly/extra staffed and adequate training) is the department for EU integration, advisory services, irrigation, organic farming, and economic analysis. New MAFRD responsibilities (such as for GAECs or for producers` groups) should properly be reflected in the MAFRD organizational chart. Consolidated MAFRD actions towards improving livestock genetic resources and preservation of the local genetic resources, registration of beehives, inventory, and registration of the local breeds in a special register should also be supported through extra (skilled) MAFRD staff.

In the case of organic farming, the institutional needs for ensuring accreditation of the certification and inspection bodies that need be consolidated should also include AVUK (which has the role of implementing specific controls) and advisory services (for promoting the new topic) and the Paying Agency (which should implement a compensatory payment scheme for farmers in conversion or with certified organic farming).

Elaboration of the simplified GAECs requires the involvement of local universities and research institutes and should be done without prejudicing the farmers' competitiveness / not inducing extra costs. **Still, the public advisory services should be prepared to establish the Farm Advisory System (FAS**), thus making available the information for farmers and promoting the adoption of good practices.

Further on, **developing the legislation for producers` organizations, their registration, and monitoring** should be part of the MAFRD tasks.

Concerning the statistical data, **the ministry department for economic analysis needs further support for collecting and aggregating the sectoral context indicators for the CAP** - https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/cap-context-indicators-table_2019_en.pdf , and https://agridata.ec.europa.eu/extensions/DataPortal/cmef_indicators.html

Need 4.2.2: EU acquis alignment on negotiation Chapter 12

As concerns **chapter 12 -food safety, veterinary and phytosanitary policy**, **addressing the missing disease control and surveillance programs is urgent.** Efforts should be made for a **proper registration of animal movements.**

There is a need to classify **all food establishments and all establishments handling by-products of animal origin** based on the EU **acquis**.

Furthermore, **an operational system for collecting and disposing of animal by-products should be put in place.**

Continued training of the staff and IT development of AVUK needs to be considered.

Regarding phytosanitary issues, monitoring and controlling system for the market access and use of pesticides requires institutional consolidation.

Need 4.2.2: EU acquis alignment on negotiation Chapter 13

The institutional needs for **chapter 13 -fisheries** are related to an inventory of fish species and aligning the market policies with the EU **acquis**. Specific monitoring and control systems should be in place.

Need 4.3: Supporting research for the support of policy-making

Policy decisions should rely on research. MAFRD should support research projects related to agriculture and rural development, including on bio-economy / circular economy.

9. ACTION PLAN

The Ministry proposes the finalizing of the Action Plan for the Strategy on Agriculture after developing the Program for Agriculture and Rural Development, which is in its' final preparatory phase, to harmonize activities and ensure the coherence of actions.

The PPRZ and SPRR Action Plans are expected to be finalized by February 2022

10. COST

11. INTERVENTION STRATEGY AND DESCRIPTION OF THE INTERVENTIONS` MECHANISM

Proposed Intervention	Brief description of the interventions` mechanism	Related needs (according to their number)	Budget source
Direct payments / Farm income support			
Transitional income support	Beneficiaries are the farmers, as registered in Farm Register, as users of the land. The support should target the market-oriented sectors: vegetables, fruits (including berries), vineyards, and MAPs The payments should be linked with simplified Good Agricultural and Environmental Conditions (sGAECs) requirements starting with 2023 while sanctions for non-conformities will be applied to start with 2025. sGAECs should be under a minimum of 1% on-the-spot control. Eligibility conditions should be under a minimum of 5% on-the-spot control. Minimum eligible area: 0.10 ha for greenhouses vegetables, 0.20 ha for open-field vegetables and orchards and berries, 0.30 ha for MAPs, and 0.50 ha for vineyards. Once the sector is considered consolidated, this support should cease. A single payment claim shall be used once per year, in spring. Payments should be annual - per ha, or coupled – per kg or ton.	**1.1, 1.2,** 2.3	National budget

Farm income support per utilized agricultural area (decoupled)	Beneficiaries are the farmers, as registered in Farm Register, as users of the land. The payments should be linked with simplified Good Agricultural and Environmental Conditions (sGAECs) requirements starting with 2023, while sanctions for non-conformities will become applicable in 2025. sGAECs should be under a minimum of 1% on-the-spot control. Eligibility conditions should be under 5% on-the-spot control. Minimum utilized agricultural area: 1 ha. The support shall be open for all crops. Public support should be higher for medium-sized farms: Cereals: 100% (as the value of the direct payment) for farms up to 5 ha, 125% for farms 5 – 10 ha, 150% for farms 10 – 100 ha, and 100% for farms above 100 ha; Vegetables, vineyards, and orchards: 100% for farms up to 0.5 ha, 125% for farms 0.5 – 1 ha, 150% for farms 1 – 10 ha, and 100% for farms above 10 ha. Complimentary income support for young farmers should be provided (an extra 5% out of the value of direct payments) within five years, starting from the first year of applying for the payment for young farmers. A single payment claim shall be used once per year, in spring. Payments should be annual, per ha.	**1.1, 1.2,** 2.3	National budget
Farm income support per animal capita	Beneficiaries are the owners of the animals. The payments should be linked with simplified Good Agricultural and Environmental Conditions (sGAECs) requirements starting with 2023, while sanctions for non-conformities will become applicable in 2025. sGAECs should be under a minimum of 1% on-the-spot control. Eligibility conditions should be under a minimum of 5% on-the-spot control. Minimum eligibility thresholds: 5 milking cows; 30 sheep and/or 20 goats; 10 calves for fattening; 2 sows for reproduction; 5,000 heads of poultry (broilers and laying hens); 50 beehives.	**1.1, 1.2,** 2.3	National budget

	Collective applications should be possible (once the implementation system is prepared) through farmer organizations or other farmers' representatives, with the advantage of making eligible categories of farmers with animals or land under the set suitable thresholds. A single payment claim shall be used once per year, in spring. Payments should be annual, per animal capita/beehive.		
Milk quality scheme	The beneficiaries are the owners of delivering milking cows. Payments shall be per liter of milk delivered to a processing plant at a higher level for higher milk quality.	**1.12**	National budget
Rural Development			
Grants for investments in physical assets of agricultural holdings	Beneficiaries are the farmers or groups of farmers, whether natural or legal persons and other agricultural legal entities. The economic viability of the recipients must be proved through business plans. For grants up to 20,000-euro, a simplified project proposal should replace business plans. The investment must respect the EU standards on environmental protection and animal welfare. Advance payments should be possible. Aid-intensity rates are in line with the EU guidelines for Measure 1. Selection criteria must also address the sector's shortcomings - as identified in the sector studies or to prove the expansion of high added-value sectors (e.g., livestock, orchards, areas cultivated with vegetables), prioritize the producers` organizations and the alignment with EU standards, including manure storage. Prioritization criteria should focus on increasing the areas/replanting of orchards and vineyards and the area of greenhouses for vegetable production, thus leading to an increase in agri-food products with market-potential/demand. Minimum eligibility thresholds (that should be observed at the end of the grant implementation):	**1.5,** 1.3, 1.7, 1.11, 1.12, 2.1	National budget + private funds (co-finance)

	15 milking cows; 20 calves for fattening; 130 sheep and/or goats; 20 pigs; 5,000 heads of poultry (broilers and laying hens); 0,10 ha for greenhouses vegetables; 0,20 ha for open-field vegetables and orchards; 0.50 ha for vineyards; 5 ha for cereals. At the moment of applying, the applicants should meet at least half of the minimum eligibility criteria. Payments should be executed in a maximum of three installments, and reimbursement of paid invoices after on-the-spot controls confirm the investments were implemented in full compliance with the business plan/project proposal and technical specifications of the construction works and/or equipment/machinery. The minimum grant value shall be 5,000 euros. Beneficiaries should remain under a 5-years commitment to continue using the investment support received through grants.		
Grants for investments in physical assets concerning processing and marketing of agricultural and fishery products	Beneficiaries are food-processing enterprises. Advance payments should be possible. Aid-intensity rates are in line with the EU guidelines for Measure 3. Prioritization should be given for EU standards alignment, especially on food safety and waste management (water treatment and re-utilization of waste) and for integration of the production of local producers / encouraging short-supply chains. Grants should target the weakness identified in the AVUK control documents ("process verbal") – documents that should be attached to the business plan by the applicants.	**1.11, 1.12,** 1.10, 2.1	EU IPA III, National budget + private funds (co-finance)

	Cooperatives and producer groups should also be prioritized through the selection system, but attention should be given not to lead to artificial producers' groups / artificial cohesion of farmers to active producers' groups. Integrated projects for both processors and farmers should be possible. The applicant remains the processor, while the investments should also cover the needs of the nearby farms – encouraging short-production chains. The processors should use the raw material from the supported farms, and thus increasing the production should be allowed. Investments in increasing the production capacities for processing plants should be possible if they are not a simple replacement of the already existing equipment/production lines if it will lead to further integration of the local production, or if it leads to the diversification of the output/new products will be obtained. At the end of the investment, the entire facility should comply with all national standards, while the investment with the EU rules.		
Preparation of the pre-feasibility, feasibility, and technical designs for the rehabilitation, modernization, and extension of the irrigation and drainage systems	A beneficiary should be the MAFRD. The technical documentation to be prepared should be sufficient for tendering construction works. Construction works should start.	**1.8, 2.7**	Donors, National budget
Grants for the rehabilitation, modernization, and extension of the irrigation and drainage systems	The beneficiary should be, preferably, a new national agency for irrigation and drainage systems or the existent water management companies.	**1.8, 2.7**	Donors, National budget

Young farmers installation grant	Beneficiaries are young farmers (up to 40 years) and the head of the holdings. They should have or acquire appropriate training or farming skills. The farm should be medium-size.	**1.4,** 1.2,1.5, 1.11, 2.1	National budget, Donors

		Based on the business plan, the financial support shall be provided to the start-up farmers (enrolled in the Farm register in the last five years from submitting the support claim). The value of the support shall be a maximum of 70,000 euros per beneficiary. 75% of the support shall be provided immediately after the business plan approval and contracting. The rest 25% should be paid at the end of the business plan implementation, but not later than three years from signing the contract. The business plan should mandatorily include standards alignment, mechanization / increasing labor productivity, and improved market access. Prioritization should cover the high added-value sectors and organic farming. Young farmers should be prioritized for training linked with innovation. At the end of the business plan implementation, the farm should comply with all national standards.		
Support for producers' groups on fruits and vegetables		Based on a submitted business plan, the beneficiaries shall be the producers' groups recognized by MAFRD. The support shall be granted as flat-rate aid in annual installments for the first five years following the date on which the producer group was recognized. It shall be calculated based on the group's marketed yearly production. Support is limited to 10% of marketed production during the first five years following recognition and cannot exceed 100,000 EUR per year. The last installment is conditional on verifying the correct implementation of the business plan.	**1.10,** 1.12	National budget, Donors
Agri-environment and climate schemes	Local breeds	The beneficiaries are the owners of the animals. Simplified GAECs requirements and rules on manure management, animal welfare, and animal health should be part of baseline rules / minimum mandatory standards. The payments should be calculated based on additional costs and lost income. A single payment claim shall be used once per year in spring. Payments should be annual, per animal capita, calculated as standard	**2.6,** 2.3, 1.9	EU IPA III, National budget

		costs, based 5-years voluntary commitment. The implementation should start with a pilot scheme.		
	Organic farming	The beneficiaries are agricultural land users under conversion or certified organic farming. Simplified GAEC requirements should be defined and applied as part of baseline / minimum mandatory standards. Persons carrying out operations under this type of intervention must be offered access to the relevant knowledge and information required to implement such operations, thus having access to appropriate training and advisory. The payments should be calculated based on additional costs and lost income. A single payment claim shall be used once per year, in spring. Payments should be annual, per ha, calculated as standard costs, based on the five-year voluntary commitment. The implementation should start with a pilot scheme.	**2.4,** 2.3, 1.9	EU IPA III, National budget
	Extensive grasslands management	The beneficiaries are the users of traditionally managed grasslands. Simplified GAEC requirements should be defined and applied as part of baseline / minimum mandatory standards. Rules on ensuring a minimum and a maximum grazing density and late mowing of meadows should be considered, chemical inputs banned, and organic fertilizers limited. Persons carrying out operations under this type of intervention may access the relevant knowledge and information required to implement such procedures, thus having access to appropriate training and advisory. The payments should be calculated based on additional costs and lost income. A single payment claim shall be used once per year in spring. Payments should be annual, per ha, calculated as standard cost, based on the five-year voluntary commitment. The implementation should start with a pilot scheme.	**2.2,** 2.3	EU IPA III, National budget, donors

Grants for diversifying the local food systems and short-supply chains	The beneficiaries are the farmers, as included in the Farm Register. 0.3 ha for MAPs 50 beehives Aquaculture The grants should focus on small investments to diversify the local economy through small businesses in agriculture and processing at the farm level.	**1.12**	EU IPA III, National budget
Grants for rural businesses and start-ups	The beneficiaries shall have located their business in rural areas. The grants should focus on small investments for start-ups and other non-agricultural rural businesses.	**3.2**	EU IPA III and National budget
Grant for rural tourism (including agro-tourism)	The beneficiaries should be rural tourism entrepreneurs with an accommodation capacity of up to 8 rooms. Farmers with at least three years-experience (proved through Farm Register) willing to develop their activity into agro-tourism should be prioritized.	**3.4**	EU IPA III and National budget
Grants for rural local development initiatives	The beneficiaries are the local action groups, and LAGS selects other beneficiaries based on the Local Development Strategies (LDSs). The selection of LAGs (including new LAGs) should start as soon as possible at the beginning of the Strategy implementation, thus including an advance funding for the preparation of the LDSs. The preparation of LDSs should rely on a template provided by the MAFRD. For all LDSs submitted regarding the template, the payments should be considered duly spent and not to be recovered. Running costs for ensuring the LAGs are operational and the LDS prepared should be provided as fast as possible. LAGs should be selected for this period, including new LAGs. LAGs should be gradually empowered to select projects based on their guidelines regarding their LDS. An implementation system for timely ensuring reimbursement of the running costs for LAGs along their activity should be implemented (e.g., monthly or quarterly payments executed by ADA).	**3.6**	EU IPA III, National budget, Donors
Grants for rural public infrastructure	The beneficiaries are the local municipalities/companies. The investments should be based on technical designs and a construction permit obtained after an environmental impact assessment was carried out.	**3.5,** 2.1	EU IPA III, National budget, Donors

		Rural infrastructure shall include rural roads and assets for ensuring the stability of the electricity network, water, and sewage systems, including wastewater treatment, forest roads, and agricultural holdings roads.		
Grants for afforestation		The beneficiaries should be the owners of the land. Areas with soil erosion or contamination should be targeted. Afforestation of grasslands should be avoided. Payments should be made based on standard costs. They shall include the charges with afforestation, five years of maintenance costs, and 15 years of compensation for losing the agricultural income (in case of afforestation of agricultural land). The afforestation should align with the National Forestry Strategy 2021 – 2030.	**2.7**	EU IPA III, National budget
Financial instruments	Guarantee schemes	The beneficiary should be a legal entity entitled to offer guarantees for rural loans and advance payments. The final beneficiaries shall be all the ARDP 2022 – 2028 beneficiaries (both private and public) and any farmer. They should benefit from guarantees against paid premiums, thus accessing loans with reduced collaterals.	**1.6**	EU IPA III + National budget, Donors
	Risk-sharing loans	The beneficiary should be a legal entity entitled to manage the fund through the banking system. 75% of the loan's capital should be sourced from public funds. The final beneficiaries shall be all the ARDP 2022– 2028 beneficiaries (both private and public) and any farmer. They should benefit from loans with lower interest rates and reduced collaterals. In case of default, the public funds should be executed, on behalf of the loan's beneficiaries, while the debts should be considered public debts (as to Tax Administration). Banks should receive a fee for managing the 75% value of the loans equal to the lost interest rate.		
Insurance Schemes		Beneficiaries are the farmers signing insurance contracts for their crops and animals against risks in agriculture, such as drought, floods, hail, early and late frost, animal disease, etc. The support shall cover at least 50% of the insurance costs. The implementation should start with a pilot scheme.	**1.9**	National budget, Donors

Grants for collective manure management and sewage systems linked with an improved nutrients management		Beneficiaries are the local municipalities. The aid-intensity rate should be 100%. Eligible investments are manure platforms/storages and equipment for manure transport (solid and liquid), field application, and sewage systems with water treatment facilities. The investments should target areas with many animals, from farms up to 100 L.U. The investments should remain open for training the farmers on good practices for manure management. The implementation model should rely on the countries' experience in the region that has implemented collective manure management grants schemes through World Bank grants.	**2.1, 1.11**	Donors
Institutional capacity building				
Setting up within the Managing Authority of a technical assistance accessing the IPARD III budget unit for		A unit for IPARD III technical assistance should be included within the Managing Authority. MAFRD should allocate appropriate human resources for the unit. The local staff should be trained through medium-term TAIEX missions on using PRAG rules. The Managing Authority should be able to start using the EU budget for the IPARD III-like Program management and implementation	**4.2.1.2**	TAIEX
Further EU alignment	Chapter 11	Identification of the most appropriate TA type of support and financing opportunity (TAIEX, IPA III, Donors) and initiating actions / preparing the requests for the following MAFRD departments: **MAFRD EU integration department is** responsible for the Stabilization and Association Agreement. Type of TA: training and advisory on implementing the Stabilization and Association Agreement provisions and further steps towards opening the EU accession negotiations. Extra staff shall be allocated; **Managing Authority for IPARD III-like Program.** Type of TA: training and advisory on launching the **EU-funded technical assistance measure,** preparing the new standards (rural infrastructure, producers' groups, setting-up young farmers, agri-environment, organic farming, financial	**4.2.1.3 , 4.2.1.2 , 4.2.1.1**	TAIEX / IPA, IPARD III TA / Donors

		instruments, etc.), community-led initiatives, and the related applicant guidelines. A separate TA project for Managing Authority should address the monitoring and evaluation system, thus orienting it towards performance, focusing on result indicators. Support for establishing a national rural network. Extra staff shall be allocated; **Economic analysis department.** Type of TA: setting up a system to collect the context baseline sectoral indicators and the context baseline environmental indicators designated under the standard monitoring and evaluation system of the EU Common Agriculture Policy; **ADA.** Type of TA: consolidating the institutional capacity through improved procedures, starting with the internal control system for applying the approved practices; IT systems should be strengthened towards a full IACS, ensuring a full undeletable log-book of all users' activity and linkages with other national databases to allow cross-checks; updating the Land Parcel Identification System; the ex-post monitoring system; setting-up a price-references database and start operating cost reasonability counter-checks (procedure manual, data-collection, price references, data-updating system). Extra staff shall be allocated; Accreditation of the system for **organic farming.** Extra staff shall be allocated; **Department for Advisory Services.** Type of TA: inclusion of the Farm Advisory System (with focus on sGAECS) into the advisory services provided under the coordination of this department and further strengthening the department towards implementing **acquis**.		
	Chapter 12	The beneficiary is AVUK. Will be identified the most appropriate TA type of support and financing opportunity (TAIEX, IPA III, Donors) and initiate actions / preparing the requests on Disease control and surveillance programs, Preparation of a plan for controlling the residues in meat and animal products, Registration of animal movements, Classification of all food establishments and all establishments handling by-	**4.2.2,** 1.11	

		products of animal origin based on the EU **acquis**. Operationalize the system for the collection and disposal of animal by-products. Further development of IT and training of the staff, Use of pesticides and detection of pesticides residues, Improving all the control procedures, logistics necessary for the controls (including specialized laboratories), and the related databases.		
	Chapter 13	Technical assistance for aligning the market policies with the EU **acquis** and for developing the methodology and an IT database for the inventory of fish species.	**4.2.3**	
Elaboration of an Action Plan for the implementation of the Western Balkans Green Agenda		One technical assistance project shall support the Managing Authority and the Department for EU integration in preparing an Action Plan for implementing the WB Green Agenda. The action plan shall include actions, responsibilities, and deadlines.	**2.11**	IPA
Extra-staffing and further training for the MAFRD departments, the Paying Agency, and AVUK		The following MAFRD departments should be extra-staffed (with appropriate qualified human resources) and trained to cope with the new challenges: EU integration, Managing Authority for the IPARD III-like Program, Advisory services, Irrigations and drainage systems, Organic farming, Economic analysis, The ADA (on all types of verifications/evaluations, internal control, ex-post monitoring, etc.), AVUK (also considering the need for an organic farming accreditation system).	**4.2.1.3**	National budget, Donors (World Bank)

Preparing context baseline sectoral and environmental indicators	The Managing Authority, together with the department for economic analysis, shall identify the context baseline sectoral and ecological indicators used by the EU Members States for the elaboration of the national strategies on agriculture and rural development and shall develop a system for their monitoring.	**2.9, 4.3**	TAIEX / IPA, IPARD III TA / Donors

Introducing Good Agricultural and Environmental Conditions	In collaboration with the ministry of environment and following the EU structure of the GAECs, during 2022, the MAFRD shall prepare simple environmental rules to be linked with all area-related payments. GAECs should not require investments but only environmentally friendly designed projects, simple to apply farming practices. Their application should start in 2023, but the first two years of implementation should be reserved for awareness, and no penalties should be applied (up to 2025).	**2.3, 4.3**	TAIEX / IPA, IPARD III TA / Donors
Elaboration of a voluntary Code of Good Agricultural Practices for the prevention and reduction of the nitrates pollution caused by agriculture	The elaboration of the Code should follow the EU Nitrates Directive provisions and should include at least: the prohibition period for applying fertilizers; slope, soil, and weather conditions for using fertilizers; rules on manure storage vessels; the maximum limit for applying manure on agricultural land and buffer strips along with water courses, recommendations concerning preparing fertilization plans based on soil tests. The Code shall be used on a voluntary basis.	**2.3, 4.3**	TAIEX / Donors
Preparing GIS soil maps	Through a technical assistance project involving the national research institute on soils, GIS soil maps should be prepared and made available at the level of MAFRD, leading to the delineation of the areas with natural constraints for agriculture. New soil tests should be carried out as needed.	**2.10, 4.3**	National budget, Donors
Setting up a national agency for managing the irrigation and drainage systems under the MAFRD coordination	A new set-up agency under the coordination of the MAFRD should take over the management of the e irrigation and drainage systems, thus with a strong focus on rehabilitation, modernization, and extension.	**1.8**	National budget, with TA support sourced from TAIEX and Donors
Setting up the legal and administrative framework for the recognition of the producers` groups	A legal act with criteria for the recognition of the producer groups should be approved by the end of 2022. The legal act shall include provisions for setting up a MAFRD commission for assessing the established producer groups vs. set criteria. The system for recognition should include a follow-up/monitoring to have clear information on the producers` group / their members' activity. Producers' groups should be encouraged for deeper cooperation, in the sense of pooling their production resources/means, such as machinery, equipment, post-harvest activities, etc. Priority sectors for producers' groups should be fruits and vegetables.	**1.10**	IPA, National budget, TA support sourced from TAIEX and Donors

Strengthening the MAFRD department for Advisory Services	The technical coordination of the advisers from the municipality level should be through their complete administrative transfer to the MAFRD department. Job description, monthly tasks, and reports shall be approved at the level of MAFRD. As their number is still limited, their duties should be resumed to sharing information, especially for the issues related to direct payments and grants, but not including advisory or consultancy actions. Farm Advisory System focusing on environmental conditioning should become part of the department for Advisory Services responsibilities.	**4.2.1.3**	National budget
Strengthening the MAFRD control on the issued licenses for wild MAPs and NWFP	The MAFRD shall establish a robust on-the-spot control system to ensure that the issued licenses are respected, and over-harvesting is avoided.	**3.8**	National budget
Preparation of a comprehensive plan to enable the export of live animals and animal products	AVUK and MAFRD should be the beneficiary of a technical assistance project to make the export of live animals and animal products possible.	**1.11**	IPA III
Study on the natural and anthropic tourism potential	The beneficiary is the MAFRD. The study should consider the natural and anthropic tourism potential compared with the existing tourism facilities	**3.4**	IPA III
Registration of beehives	The beneficiary is the MAFRD. It should be an IT database. The registration may take place at the municipality level with the support of the local advisers.	**4.2.1.3**	TAIEX, National funds
Action plan to improve livestock genetic resources and preserve the local genetic resources, including establishing an inventory and registration of the local breeds in a special register	The beneficiary is the MAFRD. It should be an IT database for the official control of milk production. Also, an inventory and registration of the local breeds in a unique IT database. Methodologies for the rolls in the above databases should be prepared.	**4.2.1.3**	IPA III, Donors
Setting up a registration system for rural tourism operators (in collaboration with the Ministry of Industry, Entrepreneurship and Trade)	The beneficiaries are the Ministry of Industry, Entrepreneurship and Trade, and MAFRD. A procedure manual and an IT database to register the rural tourism operators shall be prepared.	**3.4**	National funds, TAIEX

Digitalization and knowledge transfer			
Digitalization of the MAFRD and open-data policy	MAFRD should set up databases at the level of all its departments. Once validated, the data available at the level of MAFRD should be made openly accessible on the ministry website, including in file formats that are easy for further data processing. The MAFRD databases should be linked with other state institutions' databases as necessary All technical assistance projects deliveries should also be posted on the MAFRD website	**4.1**	National budget, Donors, (World Bank)
Advisory services for farmers on farming practices, accountancy, and marketing with the consideration of the innovation	One long-term (at least three years) technical assistance project coordinated by the advisory services department shall be signed with service providers. The beneficiary shall be the farmers. Involving universities and research institutes in training as institutions (e.g., for preparing training materials, hosting training sessions, etc.) will be mandatory to include innovation in knowledge transfer networks. The curricula should consist of modern farm practices, farm accountancy, and marketing. All training should rely on a network of demonstration farms, thus with a vital component of practical demonstrations and sharing of other farmers' experiences.	**4.2.1.3**	IPA III, National budget, Donors
Awareness campaigns on organic farming, sGAECs, on the Code of Good Agricultural Practices the for the prevention and reduction of the nitrates pollution caused by agriculture and on illegal waste dumping	Four long-term awareness campaigns shall be contracted (at least two years), covering the provisions of the organic farming, sGAECs, of the Code of Good Agricultural Practices, and avoiding illegal waste dumping. The beneficiary shall be the MAFRD / department for organic agriculture, the farmers, and rural communities.	**3.9, 2.8**	IPARD III TA Measure, National budget, Donors

Know-how transfer to MAFRD and farmers/farmer organizations on marketing by the use of short supply chains	One technical assistance project shall support MAFRD / Managing Authority for IPARD III-like Program and farmers/farmers organizations on marketing by using short supply chains. Training and raising awareness shall be the main actions.	**1.12,** 1.7	IPARD III TA Measure, National budget, Donors

Knowledge transfer on Global GAP (for farmers) and HACCP (for AVUK)	One long-term (at least three years) technical assistance project shall support farmers and AVUK in promoting Global GAP and HACCP.	**1.11**	National budget, Donors
Know-how transfer to MAFRD and farmers on promoting agro-tourism/ rural tourism	One technical assistance project shall support MAFRD and farmers in promoting agri-tourism and rural tourism.	**3.4**	Donors
Know-how transfer from other EU countries on implementing local initiatives (for MAFRD and LAGs)	MAFRD and LAGs should receive dedicated training through TA project/s (including via study visits) on preparing Local Development Strategies and on how LAGs may launch calls on selecting projects based on the locally identified priorities / other LAGs initiatives.	**4.2.1.2**	TAIEX, IPARD III, TA Measure, Donors, national budget
Setting up a national rural network	By the meaning of a technical assistance project, MAFRD should receive support for setting up and running a national rural network, including all essential actors (farmers' organizations, processors unions, forestry representatives, environmental and social NGOs, municipalities' representatives, LAGs representatives). The internal rules of the network shall be prepared, as well as envisaged additional financing sources, for the network can properly operate.	**4.2.1.2**	IPARD III, TA Measure, Donors,
Research on bio-economy and bio-based circular economy (agriculture and forest-based biomass, biofuels)	Projects on bio-economy and bio-based circular economy (agriculture and forest-based biomass, biofuels) are in the interest of the MAFRD. The know-how shall be widely disseminated through workshops and training	**4.3**	Donors, Research institutions (international, regional, national)

12. MONITORING AND EVALUATION PLAN

The **lead ministry** responsible for monitoring the implementation of the approved strategic document and undertaking actions is the **MAFRD**, through the Managing Authority for ARDP 2022 – 2028.

The key tasks are the following:

- Establish an effective monitoring and reporting mechanism in line with monitoring and reporting requirements and ensure its application.
- Collect information from the implementation (ADA) and relevant context indicators (in collaboration with other MAFRD departments).
- Prepare regular annual reports on implementing the strategic document and biannual reports on the implementation of the action plan.
- Initiate discussions of problematic issues, if needed.
- Publish regular reports on the website of the MAFRD.

The MAFRD shall establish the **inter-ministerial coordination body** to ensure regular monitoring of the implementation of strategic documents and conduct interim reviews and a final evaluation of the strategic document. The inter-ministerial coordination body will be comprised of representatives of (1) MAFRD (2) Institutions implementing strategic documents (3) Ministry of Finance (4) Strategic Planning Office (5) civil-society organizations (6) other relevant institutions. The representative of SPO/lead ministry will chair the inter-ministerial coordination body.

The critical roles of the inter-ministerial body in the process of strategy implementation are the following:

- Regularly meet and discuss the progress in implementing objectives, indicators, and actions of the respective strategic document.
- Identify challenges and bottlenecks to successful implementation and propose corrective measures by implementing institutions.
- Discuss and endorse regular reports to be submitted to the SPC.

The inter-ministerial coordination body will meet at least twice a year to discuss the progress and biannual reports. If needed, it will organize additional meetings. The lead ministry will be the secretariat to the inter-ministerial body and support convening the meetings and preparing the material under discussion.

The **Strategic Planning Office (SPO)** is the institution that coordinates the implementation of all strategic documents at the expert technical level

The **Strategic Planning Committee (SPC)** provides advice to leading and implementing ministries and steers the implementation of strategic documents. The key functions of the SPC are the following:

- Discuss and endorse annual and biannual reports if issues are unresolved by the inter-ministerial coordination body.
- Take corrective measures and decisions to strengthen the implementation of strategic documents, taking into account risks associated with performance.
- Resolve any issues between different institutions in implementing strategic documents if the resolution has failed at the lower levels (e.g., at the inter-ministerial coordination body or between various institutions).

The **Government of Kosovo** is the ultimate body in steering the implementation of strategic documents. It can direct the efforts of leading and other institutions, resolve the disputes between different institutions, and adopt any necessary measures and solutions to improve the implementation of strategic documents.

The key functions of the Government of Kosovo in the process of monitoring and reporting are the following:

- Hear and adopt regular reports.
- Adopt corrective measures to improve the implementation of strategic documents if such measures require Cabinet-level decisions.
- Resolve any issues between different institutions in implementing the strategic documents.

MAFRD will prepare two reports:

- Biannual reports on the implementation of the Action Plan
- Annual performance report on implementing the Strategic document.

The biannual reports are prepared to follow the implementation of the action plan. They should be ready by the end of the month following the reporting period. The first biannual report will cover the first six months of the year, while the second will include an account of 12 months.

The action plan report focuses on the completion of actions as foreseen in the action plan, the reasons for delays, risks associated with the implementation of activities, and the next steps. The lead Ministry uses the report and inter-ministerial coordination body to steer implementation and take corrective measures to handle problems (delays or limited implementation) and risks. The leading Ministry will draft the six-monthly report based on the inputs provided by participating Ministries through the platform of the inter-ministerial body. It will be discussed by the inter-ministerial coordination body and presented for approval to the Secretary-General of the lead Ministry.

An annual performance report is prepared to provide an account of the implementation of the strategic document. It is prepared by the end of the first quarter of the following year.
The focus of the annual report is on the following:

- Attainment of objectives compared against the indicator targets (at least for the two past years)
- Timely completion of actions undertaken
- Use of financial resources
- Main implementation obstacles
- Corrective measures.

The lead ministry will draft the annual performance report based on the inputs provided by participating Ministries through the platform of the inter-ministerial body. It will submit it to the inter-ministerial coordination body before approval by the Secretary-General. In case the matters related to implementing the strategic document are solved and agreed upon in the inter- ministerial group, the report will be submitted to the SPC for decision-making as requested by Article 16 of the Administrative Instruction.

The annual performance report should lead to decisions to mitigate the risks and improve the implementation. It is essential to formulate actionable recommendations. They should lead to concrete decisions and/or specific actions by institutions.

In addition to the annual performance report, the lead ministry will prepare one final report at the end of the implementation period of the strategic document within three months following its expiry date. The lead Ministry will submit the final report to the SPO to assess the implementation of objectives based on actions and proposals for the next steps. This ministry will also introduce the final Report to the SPC. In case of a disagreement on the assessment, the SPO may submit its independent assessment and opinion to the SPC.

In 2025, a mid-term independent review of the Strategy implementation should occur. Adjustments of the final targets should be possible.
In 2028, an ex-post independent review of the Strategy implementation should occur.