

**STRATEGIC PLAN FOR RURAL DEVELOPMENT
OF BOSNIA AND HERZEGOVINA
(2018-2021) - FRAMEWORK DOCUMENT**

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Abbreviations and Acronyms

AFRS	Agriculture Forecast Reporting System
APIF	Agency for Intermediary, IT and Financial Services
APM	Agri Policy Measures Tool
AMIS	Agricultural Marketing Information System
ANC	Areas with Natural Constrains
BAM/KM	Bosnian Convertible Marks (BiH KM)
BD BiH	Brcko District of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
BiH MAC	BiH Mine Action Centre
BRC	International Company for Food Safety Global Standards (BRC Global Standards)
CAP	Common Agricultural Policy
CEDAW	Convention on Elimination of all Forms of Discrimination against Women
CEFTA	Central European Free Trade Association
CLC	CORINE Land Cover
CR	Client Register
DAFWM BD	Department of Agriculture, Forestry and Water Management Brcko District
EC	European Commission
EFTA	European Free Trade Association
EIDHR	European Instrument for Democracy and Human Rights
EU	European Union
FADN	Farm Accountancy Data Network
FAO	Food and Agriculture Organization of the United Nations
USAID/Sweden FARMA II	USAID/Sweden Fostering Agriculture Market Activity II
FBiH	Federation of Bosnia and Herzegovina
FAIM	Federal Agromediterranean Institute Mostar
FBiH MAFWM	Ministry of Agriculture, Forestry & Water Management of Federation BiH
FIA	Financial Intelligence Agency
FR	Farm Register
FSI	Federal Statistics Institute
FVO	Food and Veterinary Office EU
GAV	Gross Added Value
GDP	Gross Domestic Product
GLOBALG.A.P.	GLOBAL <i>Good Agricultural Practice</i>
GIS	Geographic Information Systems

GIZ	German Organization for International Cooperation (<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i>)
Ha	Hectare
HACCP	Hazard Analysis Critical Control Points
IACS	Integrated Administration and Control System
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation (of the World Bank)
IFOAM	International Federation of Organic Agriculture Movements
IP	Integrated Production
IPA	Instrument for Pre-Accession Assistance
IPM	Integrated Pest Management
LAG	Local Action Group
LPIS	Land Parcel Information System
LSU	Livestock Unit
MAP	Medicinal and Aromatic Plants
masl	Meters above sea level
MCO/MCC	Micro Credit Organization/Micro Credit Company
MoFTER	Ministry of Foreign Trade and Economic Relations
OPEC	Organization of Petroleum Exporting Countries
OFID	OPEC Fund for International Development
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
PPP	Plant Protection Products
RASFF	Rapid Alert System for Food and Feed
RS	Republic of Srpska
RSI RS	Republic Statistics Institute of Republic of Srpska
RS MAFWM	Ministry of Agriculture, Forestry & Water Management, Republic of Srpska
SAA	Stabilization and Association Agreement (between the EU and BiH)
SMEs	Small and medium enterprises
Sida	Swedish International Development Agency
SVO	State Veterinary Office
SWG RRD	Regional Rural Development Standing Working Group in SE Europe
TAIEX	Technical Assistance and Information Exchange Instrument of the European Commission
TSG	Traditional Specialty Guaranteed
TWINNING	TWINNING is an EU instrument for institutional cooperation between the public administration of EU Member States and beneficiaries or partner countries

UAA	Utilized Agricultural Land
UHT	Ultra High Temperature
USAID	United States Agency for International Development
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VC	Value Chain
WTO	World Trade Organization

1. Introduction

The Ministry of Foreign Trade and Economic Relations (MoFTER), Sector for Agriculture, Food, Forestry and Rural Development, have coordinated the development of the BiH Strategic Plan for Rural Development (Strategic Plan) which covers the period 2018 to 2021. Strategic plan is developed in cooperation with the Federal Ministry of agriculture, water management and forestry (FMAWMF), Ministry of agriculture, forestry and water management of Republic of Srpska (MAFWM RS) and the Department for agriculture, forestry and water management of the Brcko District BiH Government (DAFWM BD BiH), with technical assistance of the USAID/Sweden FARMA II Project.

In preparation of this document analyses, objectives, measures and plans already in force and being implemented within the framework of Entity strategic documents were taken into consideration. In FBiH *Midterm agricultural sector development strategy in Federation of Bosnia and Herzegovina for the 2015-2020 period* is in force, while *Rural development program for Federation of Bosnia and Herzegovina for the 2018-2020 period* is in the adoption process. *Strategic plan for the development of agriculture and rural areas of Republic of Srpska, 2016-2020* was adopted in Republic of Srpska. Strategy for development of agriculture, food and rural development in BD BiH was developed for the 2008 – 2013 period, but was never adopted at the BD BiH Parliament. Development of a new Agriculture, food and rural development strategy is in progress.

This document is also based on a detailed analysis of the current state in the sector as a whole. The above mentioned strategic documents as well as sector based analyses, funded by the European Union and carried out by FAO, provide strong input parameters and ensure a sound basis for justified and appropriate targeted measures. Agricultural sector analyses have been prepared through consultations with competent authorities and are based on relevance in terms of EU standards and industry. These analyses have been carried out for: meat, processing of milk and milk products; fruits and vegetables; cereals (wheat and maize); wine; and diversification.

Additionally, competitiveness assessment results for three value chains in agriculture have been taken into account - for milk and milk products, meat and meat products, fruits and vegetables, wine and fish in BiH, FBiH and RS – which affirmed that the milk and milk products, meat and meat products, fruits and vegetables are the most competitive sectors.

Sector based analyses provide detailed information on the state of play in these sectors and identify weaknesses and issues of interest for the sector which need to be resolved.

The document provides:

- (i) Summary analysis of the current situation in agriculture and rural areas of B&H;
- (ii) Summary analysis of the strengths, weaknesses, opportunities and threats to agriculture and rural areas of B&H over the next four years;
- (iii) Strategic framework and set of priorities for the development of agriculture and rural areas over the next four years;
- (iv) Indicative Action Plan for implementation of the Strategic Plan;
- (v) Indicative budgetary framework, reflecting the resource allocations and requirements, including a breakdown of allocations by the public sector, private sector and donor community.

Strategic plan primary objective is to ensure a framework for gradual alignment of rural development goals, determine programs, measures and other activities in order to achieve those

goals, establish monitoring and evaluation, as well as generally determine necessary financial resources and procedures for their use.

In this context, the Strategic Plan is intended to provide a broad framework to guide the gradual alignment of BiH agriculture and rural development with EU best practices. The document is also intended to promote the attraction of investments and technical support required to assist with this alignment process and to support the development of the sector, at all levels of governance.

Strategic plan provides a framework for agriculture and rural development sector, improvement of sector coordination and management, regulatory system improvement for food safety, veterinary and phytosanitary issues, legislative and institutional alignment, in order to ensure gradual alignment to the EU and international standards.

The Strategic Plan also envisages the development of capacities and diversified support to rural development. For the Strategic Plan to be successful in these areas, it will require an unprecedented degree of cooperation and partnership between the public administration and private sector, at all administrative levels.

The Strategic Plan also outlines initiatives for the gradual increase in investment support available for the development of the private sector, focused upon strengthening production, improving value chain linkages and increasing access of producers and processors to modern technology, primarily targeting niche markets where B&H may have a comparative advantage. Integration of the regional market and introduction of tariff-free access to BiH market by EU countries creates competition pressure which will have wide ranging implications for agricultural production and rural economy in BiH. Not all producers and agro-processors will benefit from improved market access for their products. Less efficient agricultural processors and producers as well as farmers with weak market access, lower quality land and insufficient production volume will find it difficult to compete with imported products.

As a result of the changes, it is expected that production and trade of certain agricultural products will grow, while the production of other goods will fall.

These difficulties will affect the long-term sustainability of many rural communities. Rural development will thus become an increasingly important element of agricultural policy, particularly the design and implementation of measures to help rural people find alternative, non-farm sources of income and employment, as overall employment in primary agricultural production declines.

The Strategic plan is therefore designed to provide a framework for mitigating the consequences of these changes by ensuring development of commercially sustainable agriculture production and processing in accordance with the Entity and BD BiH priorities.

The approach presented in the Strategic plan is all-encompassing. However, the implementation approach, as defined in the Action plan, will be gradual recognizing the need for institutional capacity building and user capacity building in the coming period in order to effectively use and make use of rural development support as well as other means of technical and financial support.

In designing the Strategic plan appropriate competencies for policy development and implementation affecting the sector at Entity, BD BiH and BiH level have been fully taken into account. Entity agriculture ministries and the Department of agriculture of BD BiH Government carry the primary responsibility for development and improvement of plant and animal production, fishing and hunting, agricultural land protection and use, food industry and

feed production, water protection, veterinary area, phytosanitary area, public health protection and forestry.

And in the Federation of B&H, certain competencies are further devolved to Cantonal level administrations responsible for agriculture, veterinary, forestry and water management.

At the BiH level, among other things MOFTER is competent for performing activities and tasks within the BiH state level competencies related to defining policy, main principles, coordination activities and harmonizing Entity authorities' and institutions' plans at international level in the following areas: agriculture; energy; environmental protection, natural resources development and use; tourism. Additionally, with regards to all the areas which fall within the rural development category but do not fall directly within the agriculture sector, such as issues of availability of health care and health insurance, public transport, education etc. documents which are in accordance with the constitutional jurisdictions, are in force and are valid regarding these issues will apply.

Such legislative framework (Law on agriculture, food and rural development BiH, "O.G. BiH" No 50/08; Law on agriculture, "O.G. RS" 70/06, 20/07, 86/07, 71/09; Law on agriculture FBiH "Official Gazette FBiH", br. 88/07, 4/10, 27/12 and 7/13) requires high level of cooperation and coordination among the relevant Entity, BD BiH and BiH institutions, in order to ensure effective development of sector policies and harmonization of their implementation.

This Strategic Plan aims to address this challenge through a *middle-up*, entity-led approach that seeks to fully respect entity, BD BiH and state competencies, whilst promoting practical solutions that will ensure that real and measurable progress can be made in the interests of all main agriculture and rural stakeholders in the sector who need practical support and assistance to be able to develop their businesses and rural communities over the next four years and beyond.

2. Analysis of the current situation in the sector

2.1. Importance of agriculture in the BiH economy

Agriculture and the food industry are important branches of the economy of Bosnia and Herzegovina (BiH), its Entities and Brcko District (BD), both in terms of their contribution to the economy and overall employment and socio-economic development.

In BiH *gross added value* (GAV) of agriculture (together with forestry and fishing), has varied over the last period in absolute terms (BAM 1.6-1.8 billion), but generally has been increasing. However, in relative terms it has been decreasing due to the faster growth in the GAV of other, non-agricultural sectors (from 8.1% in 2006 to 6.2% in 2015). At the same time, agriculture is of bigger importance for Republic of Srpska than for BiH Federation (BiH Agency for Statistics).

Federation of Bosnia and Herzegovina: In Federation BiH agriculture GAV was between 707 million (2006) and 857 million KM (2015), and its participation in FBiH DGP is falling, being 4.6% in 2015.

Republic of Srpska: In Republic of Srpska agriculture GAV in 2015 (857 million KM) is almost identical to the figure for 2016 (897 million KM), having exceeded 900 million KM in certain years. Participation of agriculture in RS GDP is falling, amounting to 9.3% in 2015.

Brcko District Bosnia and Herzegovina: In Brcko District BiH, agriculture GAV is growing in absolute terms (52 million KM in 2006, and 66 million KM in 2015); while in relative terms its participation in BD BiH GDP has fallen from 14% in 2006, to 10% in 2015.

Long-term trends indicate a decrease in the number of people engaged in agriculture in BiH. However, this decrease is slow and indicates agrarian over-employment compared to the importance and share of this sector in creating social wealth. According to labor force surveys, the employment in agriculture was at 17.9% at the end of 2015, though the sector accounted for less than 1% of formal registered employment. In BiH, 147 thousand people are working in agricultural production, on a full-time or part-time basis.

Federation of Bosnia and Herzegovina: Officially in Federation BiH only 2,832 (0.6%), workers were working in agriculture in 2015 while unofficially (according to labor force survey data) there were another 53 thousand workers (10.6%).

Republic of Srpska: In Republic of Srpska, there were officially 1,759 (0.9%) workers working in the agriculture sector in 2015 (data refers to those employed in area 01 – plant and animal production, hunting and related service activities of area A – agriculture, forestry and fishing) while unofficially the number was as high as 91 thousand workers (29.1%) (*Data from a labor force survey, dealing with the whole area and includes officially and unofficially employed*).

Brcko District Bosnia and Herzegovina: In Brcko District BiH in 2015 there were officially 88 workers (22 in s.p. and 66 in legal entities) in the agriculture sector, while there were about 3,215 unofficially employed (according to data from the Register of agriculture holdings and clients).

The share of agricultural and food products in BiH foreign trade is substantial, with imports having a larger share (BAM 2.8 billion; 18.1%; 2015) than exports (BAM 840 million; 9.4%; 2015). Available trade data indicates that the imports to exports ratio of agricultural and food products continues to improve, albeit at a slowing pace (14% in 2006 and 29.4% in 2015) (BiH Foreign Trade Chamber). Due to the single economic space and the fact that the export and

import data is recorded according to the importer/exporter official address, it is not appropriate for the foreign trade exchange data to be analyzed on Entity and BD BiH level.

The large share of agriculture in the structure of GDP, the high level of employment and considerable share in the foreign trade deficit are the three main characteristics of agriculture and its importance for BiH economy.

2.2. Natural resources as the basis of agricultural production

Three resource factors are necessary and important for agricultural production: **climate, land/soil and water.**

The *Climate* in BiH varies from a temperate continental climate in northern Pannonia lowlands along Sava River and in the foothill zone, to an alpine climate in the mountain regions, and a Mediterranean climate in the coastal and lowland areas of the Herzegovina region in the south and southeast. The lowland area of northern BiH has a mean annual temperature of between 10°C and 12°C, while in areas above 500 masl the mean annual temperature is below 10°C. Mean annual air temperature in the coastal area varies between 12°C and 17°C. In the period 1981-2010, an increase in air temperature was recorded in the entire territory of BiH. The highest increase of approximately 1°C is recorded during summer and winter period. Annual precipitation amounts range from 800 mm in the north along the Sava River to 2000 mm in the central and southeastern mountainous regions of the country (period 1961-1990). Average annual precipitation in BiH is about 1,250 mm. However, it is not evenly distributed, either spatially or temporally (Second National Communication of BiH under UN Framework Convention on Climate Changes, UNDP, 2013).

In BiH *climate changes* are manifested through increases in average temperatures. Over the past hundred years the temperature has increased by 0.8°C on average (which is in line with global trends), with accelerating tendency, and so the average temperature in the last decade (2000-2010) was the warmest in the last 120 years. It is expected that the duration of dry periods, frequency of floods from inundation and intensity of erosion of soil will increase over the course of this century. Additionally, the frequency of hail, storms, thunders and maximum wind speed is expected to increase which can pose a threat to all forms of human activity (First National Report on Climate Changes according to UNFCCC (2009); BiH Federation Vulnerability Study (2011)).

The primary natural resource that conditions the scope and structure of *agricultural production* is agricultural land, its size, topographic characteristic and quality. One of the most important reasons of insufficient production of the basic agricultural products in BiH is insufficient and inadequate use of agricultural land. According to the statistical sources, BiH has 2.2 million ha of agricultural land of which 1.6 million ha is arable land and 600 thousand ha are pastures (Agency for Statistics BiH and Republic of Srpska and Federation of BiH institutes of statistics, 2016). The most valuable land, in agricultural terms, (capability class I and II) in BiH is scarce (300 thousand ha). According to BH MAC data for 2016, the total mine suspected area in BiH covers 1.145 km² (2.3% compared to the entire area of BiH) with the largest area falling within the category of agricultural land. The largest part of agricultural land and in particular, arable land is privately owned. However, its distribution to around 350 thousand rural households is unfavorable. In the absence of new data, those from 1991 are used according to which BiH had 291 thousand farms with holdings of less than 2 ha with only 16 thousand farms with holdings of over 10 ha (BiH Institute of Statistics, 1983). The situation has certainly changed and is probably even more unfavorable while the updated and reliable data could be expected only after the implementation of an agricultural census. The restitution regulations have not been passed and for now there is no possibility to reconstitute the seized agricultural land to their rightful

owners or their legal successors. Comprehensive privatization of state-owned land is not foreseen as it could result in further fragmentation and even worse structure of holdings. The impediments to development of an efficient market of private agricultural land include, among others: large fragmentation of agricultural land; disorderly state of land register and cadaster; lack of organized and systematic data on the supply and demand; lack of tax policy to systematically address the issue of neglected agricultural land; conversion of agricultural land into construction land; and lack of favorable loans for purchase of agricultural land. To promote better use of agricultural land and support future application of area-based subsidies it is necessary to establish an effective Land Parcel Information System LPIS, based on the actual use of areas, using (GIS).

According to the available statistics sources, agricultural land structure in BiH, Entities and Brcko District BiH, with negligible oscillations in the last decade, was as shown in the table below:

Table 1: Structure of arable land in BiH, Entities and BD BiH, year 2015 (in 000 ha)

	Agricultural land	Arable areas (ha)					Pastures	Marshes, reeds & ponds
		Total	Plow land & gardens	Orchards	Vineyards	Meadows		
BiH	2.200	1.598	1.035	101	5	457	599	3
FBiH	1.181	747	428	45	5	269	432	2
RS	983	816	577	52	0	187	166	1
BD BiH	36	35	30	4	0	1	1	0

Source: FBiH: Federal statistics institute, RS: Statistics yearbook of Republic of Srpska, BD: Statistics agency BiH

Federation Bosnia and Herzegovina: According to statistics data (Federal statistics institute) for 2015, in the agricultural land structure, from the total of 1,181,000 ha arable land accounts for 747,000 ha or 63.2% (plow-fields and gardens 428,000 ha, orchards 45,000 ha, vineyards 5,000 ha, meadows 267,000 ha), while non-arable land accounts for 435,000 ha or 36.8% (pastures 432,000 ha and reeds and marshes 2,000 ha). According to BH MAC data for 2013, on the FBiH territory, areas of about 938.90 km² are considered mined.

Republic of Srpska: According to the statistical data (Republic statistics institute RS), in 2015 RS had 983,000 ha of agricultural land, of which 816,000 ha was arable land and 166,000 ha pastures. In the agricultural land structure plow-land accounts for 577,000 ha, orchards and vineyards 52,000 ha, and meadows 187,000 ha. According to BH MAC data for 2014, on the RS territory, there were 267 km² suspicious (mined) areas, which make up 1.07% of the total agricultural land area.

Brcko District BiH: In BD BiH out of 36,000 ha of agricultural land, most are plow-land areas (30,000 ha), followed by orchards (4,000 ha), meadows (1,000 ha) and pastures (1,000 ha) (Statistics agency BiH, 2016).

The **Hydrological map** of BiH is composed of rivers and natural and artificial lakes. With average precipitation of 1.250 mm BiH is one of the water abundant areas of Europe, in particular, southern Europe.

Federation of Bosnia and Herzegovina: In Federation BiH total volume of precipitation water amounts to 33x10⁹ m³. Total runoff from the FBiH area is about 1.050 m³/sec, while the

average runoff from the FBiH area is about 670 m³/sec. Average runoff coefficient from the FBiH territory is 0.64. Spatial and time distribution of water in FBiH is fairly uneven. The most pronounced needs for water are in the Posavina region which has a significant agricultural potential but at the same time is the poorest part of FBiH in respect to own waters. The periods of less intense precipitation at the main sub-basin areas in FBiH last relatively long time, namely in the period from June to September. This is also the period when the needs and demand for water, especially of agricultural sector, are the biggest. In the existing spatial and time distribution of water in FBiH it is difficult to find space for water catchment for intensive irrigation. Securing water for irrigation purposes should therefore be resolved within the framework of building multi-purpose accumulations or by distribution of water within the existing accumulations. Securing water for irrigation needs should therefore be resolved within the framework of building multi-purpose accumulations or by redistribution of water from the existing accumulations.

Brcko District Bosnia and Herzegovina: The direct Sava river basin on the territory of BD BiH belongs to the circumference part of the Pannonia basin, with temperate continental or Central – European climate. Average annual temperatures are about 13°C, while annual precipitation ranges from 700 to 1.100 l/m². On the Sava river water region in BD BiH, 24 water courses have been identified with watershed area of 10km², relatively distributed over all the sub-basins. The Law on water protection BD BiH determines three main sub-basins of the Sava river water region on the BD BiH territory as follows: The direct Sava river basin on the territory of BD BiH, river Brka sub-basin and river Tinja sub-basin.

Republic of Srpska: The RS territory is divided into two regional river basins: Sava river regional river basin and Trebišnjica river regional river basin. RS shares with FBiH water resources from some of the more significant watercourses. Distribution of water in RS is such that there is a lack thereof where it is needed the most, namely its northern parts where the most fertile land can be found. Average annual precipitation in the northern regions of RS is relatively low ranging on average 750-850 mm/annum. On the other hand, average daily precipitation in southern and mountainous regions of RS is about 1.800 mm/annum. In accordance with the Strategy for integrated water management in RS 2015-2024 it is possible to encompass 158,000 ha by irrigation. In the meantime, there has improvement from earlier information that there are 7,262 ha covered by irrigation system in RS, of which only 1.700 ha are functional. In the 2009 – 2015 period investments in irrigation on 14,357 ha have been subsidized from the agriculture budget in Republic of Srpska. Republic of Srpska Government adopted the Strategic development plan for agriculture and rural development in RS for the 2016 – 2020 period which provides for monetary support for irrigation system investment (common and individual) with the aim of increasing irrigated area by 10,000 ha by the year 2020.

Federation of Bosnia and Herzegovina: Territory of Federation BiH is divided into two river basins: Sava river water basin and Adriatic Sea water region. Due to discrepancies between precipitation configuration and water needs during vegetation on the Federation BiH territory it is necessary to find ways to compensate for the lack of water during the key periods. Specific information on irrigated areas in Federation BiH is not available as the systems which were in existence before the war have been partially or completely destroyed. Having in mind that the lack of irrigation is one of the main production limitations for agricultural crop cultivation in Federation BiH, a project “*The basis of land organization – irrigation program and holdings consolidation program in Federation BiH*” has been developed. Within the framework of this project, detailed survey of the current situation of the irrigation systems is planned and eventually an increase to 30.000 ha of agricultural land area covered by irrigation systems is

foreseen by the year 2021, which would make up 4% of arable agricultural land in Federation BiH.

It is estimated that the *climate change* impact through the rise of average temperatures and decrease of average precipitation, will in the future have an even more negative impact on agricultural production, therefore making irrigation an absolute necessity. Securing water for irrigation purposes will have to be resolved within the framework of building a number of specific accumulations as well as redistributing water within the existing accumulation facilities. Excess water may pose a problem just like the lack thereof. In addition to investing in irrigation, it is also important to simultaneously invest in drainage and large water protection (outside and internal) by building drainage systems, runoff channels, dykes and pumping stations.

As in most other countries, natural and other conditions for agricultural production are not the same on the entire territory of BiH. The EU has a **classification of areas with natural constraints for agriculture production ANC**. BiH does not have such a division and no specific measures to support these areas as does the EU within CAP. In adopting the Strategic development plan for agriculture and rural development, RS has recognized the need for special treatment of less favorable areas and therefore, one of the tasks of this plan is to adopt regulation which would define criteria based on which identification of less favorable areas for agricultural activity would be conducted. Federal Law on agriculture has, alas somewhat differently in relation to categories and criteria determined in provisions of Council Regulation (EC) No. 1257/1999, provided that the areas with more difficult production conditions relate to: highland areas (certain altitude) and areas with unfavorable hydrologic and pedologic characteristics. It is stipulated that the areas with more difficult production conditions are to be determined by a separate law.

2.3. Forestry

In addition to agricultural land, an important resource in BiH is the *forest land*. According to the official data on forest abundance, BiH is classified under European countries with significant forest cover (depending on the source, forest account for 55% or 63% of total BiH area) whose landscape is characterized by natural forest ecosystems which leave significant mark on economic development of the country and standard of its citizens, from the economic, environmental and sociological point of view. This primarily relates to the provision of jobs and participation in energy balance of the country. In general, the role of forests is immense in increasing the standard of people by being able to spend time in nature, providing and regularly supplying drinking water and mitigating climate extremes, as well as preventing occurrence of high waters and protecting human lives from any other disaster. As regards to development of rural areas, forestry is a very important economic branch. The forest production potential does not consist of timber only but also of hunting and other (non-wood) forest products the collection of which an activity large number of poor rural population is engaged in. FAO conducted an Analysis of Forestry Sector in BiH (2015) which foresees three courses of action: (i) afforestation; (ii) fire prevention and restoration after fire; and (iii) improving the resilience and environmental value of forest ecosystems.

Federation of Bosnia and Herzegovina: Total area covered by forests in Federation BiH is 1,465,600 ha or 56.2% of the FBiH total land area. Out of that, total area of accessible forests with production characteristics is 1,028,700 ha or about 39.4% of the FBiH total land area. Due to large areas of shrubbery and barren land, the proportion of forests and forest land in the FBiH total land area is somewhat larger and amounts to 64.9%.

Republic of Srpska: Forest land in RS makes up 51.7% of its total territory and amounts to 0.70 ha of forest covered land per capita. According to data from the Forests and Forest Land Cadaster, the total forests and forest land area in RS is 1,282,412 ha. 982.893 ha or 77% of forest area is state owned, while there are 281,965 ha or 22%, of privately owned forests without forest land with 17,554 ha or 1% illegally taken over.

Brcko District Bosnia and Herzegovina: Total forest covered land area in BD BiH is 10,873.45 ha, of which state-owned forests amount to 2,473.00 ha or 22.65% while private forests cover 8,410.45 ha or 77.35%.

2.4. Agricultural production

Agricultural production in BiH covers a broad spectrum of crop and livestock production systems.

2.4.1. Plant production

Plant production in BiH relies upon the use of available agricultural land. One of the biggest problems faced by plant production is insufficient use of the best quality land areas – *plowed fields*. Around one half of all available plow land is sown (though this statistical data is taken with a grain of salt).

Federation of Bosnia and Herzegovina: In Federation BiH, in the period from 2006 – 2015 on average 194,000 ha or 48.6% of total arable land area was planted on, while more than half (205,000 ha) was set aside as fallow land. With respect to planting on arable land, the most common crop, on a ten year average for the 2006 – 2015 period, was cereal which with 85 thousand ha makes up 43.6% of total planted area. The second most important crop group was fodder which with 64 thousand ha makes up one third (32.8%) of planted arable land area, while on average vegetable crops were planted on 44 thousand ha or 22.6% of total planted arable land. Relative to other crop groups industrial plants have only minor significance in field crop production (1%) and relate to soya and tobacco production (FSI).

Republic of Srpska: During the period from 2006 – 2015, 324,000 ha or 55.4% of arable land was used for planting some crops while 44.6% or 261,000 were not used. With regards to arable land use structure in RS, cereals dominated (maize was planted on 2/3 of cereal planted land area), which in ten-year average for the 2006 – 2015 period comes to about two thirds (65.4%) of planted arable land. Industrial plants were planted on about 1.9% of arable land, vegetables on 10.5% and fodder on 22.2%. Data on cultivated areas are more reliable than data on non-cultivated areas which is statistically determined by subtracting the cultivated areas from the total arable land and garden area (RS RSI). According to the statistics, on average 261 thousand ha in RS is not cultivated, which is less (taking into account the reservations related to total agricultural arable land area) although it is difficult to determine by how much.

Brcko District Bosnia and Herzegovina: In BD BiH the most prevalent planted crop is wheat (on average 10 thousand ha) while vegetables and fodder plants can be found on areas of one thousand ha each.

The volume of production of all *arable and vegetable crops* varies from year to year, indicating significant dependency of this production on climate conditions. Local production of seed is insufficient and large quantities of seeds are imported.

The yields per unit area of all arable and vegetable crops produced in BiH are low (data given in Table 3) and are one of the reasons of poor competitiveness of agricultural producers engaged in arable crop production. The variations in yields have much bigger impact on the

considerable variations in the production of cereals, fodder and industrial crops than the variations in sown area. During 2006-2015 period, annual production of maize in BiH ranged between 539 thousand (2012) and a million tons (2008). The largest wheat production was at 265 thousand tons (2013) and the lowest at 145 thousand tons (2009). Total production of potato in BiH ranges between 300 thousand tons (2012) and 428 thousand tons (2008).

The agricultural statistics in BiH is still tracking the *production in orchards and vineyards* (with the exception of strawberry and raspberry production) based on the number of trees and grapevines, and therefore the data on the overall production of fruits and grapes by individual fruit species are available only by the number of trees and grapevines. This, as well as the fact that the data do not differentiate between intensive and extensive production, makes it difficult to analyze the available information and make valid conclusions.

Federation of Bosnia and Herzegovina: On Federation BiH territory, a large number of temperate climate fruit species is cultivated, i.e. pome fruit, stone-fruit and soft fruits. Fruit production development on the FBiH territory is based on intensive and modern fruit production rather than on revitalization of pre-war orchards, was shown to be successful. The most important fruit species is plum with 5.4 million fruit bearing trees, followed by apple with 2.5 million fruit bearing trees and pear with 1.2 million trees. In the total fruit production plums contribute an average of 48 thousand tons, apples 25 thousand tons and pears 9 thousand tons of fruit. Average yields per fruit bearing tree vary from year to year, due mostly to climate circumstances in which the production is conducted. Soft fruit production on the FBiH territory has undergone strong expansion and its production follows modern trends from developed countries. Strawberry and raspberry production growth has led to development direction reorientation in certain regions on the FBiH territory, so much so that industrial disciplines have been exchanged for agriculture production. Raspberry covered areas have quadrupled (1,029 ha in 2015) and strawberry covered areas are constantly growing as well (821 ha in 2015). According to the “Vineyards Cadaster BiH” (FAMI), in FBiH vineyards cover a total area of 3,250 ha. It is estimated that between 20 and 32 thousand tons of grapes is produced in FBiH annually.

Republic of Srpska: Regarding cultivation structure of large fruits for the last ten years (measured according to number of trees) relative share of plums is decreasing while apples and pears shares are growing which is due to production orientation when establishing new plantations. All other fruit species combined make up a 5% share of the total number of fruit trees. On average 82 thousand tons of plums is produced annually, 41 thousand tons of apples and 14 thousand tons pears. Fruit production in RS is characterized by production duality; on the one hand there are family holdings with old plants of heterogeneous varieties applying traditional technology with the fruit mostly being processed into brandy, while on the other hand are entrepreneurs with younger plants of uniform species but often not aligned with market demands who apply modern production technology, and producing fruits solely for sale on the market. There is a growing interest for raspberry production in RS, while the interest for strawberry production is diminishing (the largest planted area was in 2006, and the smallest in 2015). Raspberry production reached its maximum in 2011 (772 ha) and since then it has stayed steady at an area of about 700 ha. Average yield (among other things also due to application of artificial irrigation and use of higher quality fertilizer) ranges from 6 to 9 tons per ha. Vineyard covered areas in RS have risen from 288 ha (in 2006), to 551 ha (in 2015), i.e. from 756 thousand fruit bearing vines (in 2006) to 1.5 million (in 2015). Grape production ranged between 1,500 and 3,500 tons annually.

Brcko District Bosnia and Herzegovina: Plums are the most common fruit species in BD BiH as well, (about 400 thousand trees), and is followed by apples (80 thousand trees) and pears (50 thousand trees) and annual yield and production variations as in other parts of BiH.

BiH has substantial areas covered by natural *meadows and pastures* (1.05 million ha). This resource is used for livestock production and is underused. If *sown meadows* are added to this number then the data show that BiH has around 2.3 ha of meadows and pastures per livestock standard unit. Given that there has been a spread of meadows and pastures at the expense of arable land and a simultaneous decrease in the number of cattle and share of fodder in its diet, increasing area of natural meadows and pastures is not used productively for livestock production and from one extreme, i.e. that they could be overloaded with too frequent harvesting and grazing, we have reached another, i.e. that more and more of these areas are neglected.

Federation of Bosnia and Herzegovina: Federation BiH has considerable areas covered by natural meadows and pastures (701 thousand ha). Meadow and pasture covered areas have not significantly changed in the 2006 – 2015 period. As has been stated earlier, statistical data may here as well significantly deviate from the real situation since many arable land areas have been turned into grasslands, and some grass covered areas into shrubbery or forest covered areas. In FBiH in the 2006 – 2015 period statistically average areas covered by natural meadows amount to 269 thousand ha while pasture areas are much greater and amount to 432 thousand ha. Dry mass yields achieved on meadows are low (1.5–1.8 t/ha of hay) due to the fact that generally no agro-technical measures are applied.

Republic of Srpska: RS has significant resources in highland areas in the form of natural meadows and pastures predisposed for livestock farming, especially for extensive fattening in the cow-calf system and for sheep and goat farming (which can secure up to 70% of nutritive substance needs by pasture). Officially, RS has 187,000 ha natural meadows and 166,000 ha pastures while in reality these figures are likely much higher. Natural meadows are generally not fertilized; the yields per unit area are low due to irregular precipitation distribution and are therefore in most cases mowed only once a year. Low quality hay is a consequence of low quality grass content and late mowing. As livestock population is decreasing, considerable amount of pastures are not being grazed.

Brcko District Bosnia and Herzegovina: In BD BiH there is about 3,300 ha of area covered by meadows and pastures.

2.4.2. Livestock production

Taking into account the availability of natural resources and the number of farmers engaged in cattle breeding, this production is of great importance for BiH agriculture, especially in the FBiH. The dominant portion of meadows and pastures in the BiH Federation (60.6%, 2006-2015 average), and the significant RS share (35.1%, 2006-2015 average) in the agricultural areas is a resource which makes a solid basis for its further development. When analyzing the production of livestock products, the starting point is the number of livestock by type and category.

Table 2: Number of livestock units in Bosnia and Herzegovina, Federation BiH and Republic of Srpska, 2015 (in 000)

	Cattle		Pigs		Sheep		Goats	Horses		Poultry	Hives
	Total	Dairy cows	Total	Sows/gilts	Total	Breeding ewes		Total	Mares/fillies		
BiH	455	247	564	77	1,011	592	72	17	6	22.248	393
FBiH	216	136	89	9	525	404	42	6	1	9.818	229
RS	229	108	452	61	486	272	30	11	5	11.011	164
BD BiH	7,0	1,9	19,4	2,1	7,2	4,6	0,9	0,03		1.004	9,9

Source: FBiH: Federal statistics institute, RS: Republic of Srpska statistics yearbook, Statistics agency BiH, Department for agriculture, forestry and water management of BD BiH Govt.

The existing animal identification and movement control system is not fully updated or reliable; hence the data on the number of relevant species and categories of domestic animals have to be taken with a grain of salt. Generally speaking, in 2006-2015 period, the number of all species of livestock in BiH saw a downward trend, except for poultry and bees. Cattle production, i.e. milk production, is the most important branch of livestock production in both Entities.

Federation of Bosnia and Herzegovina: In FBiH cattle, sheep and goat farming are experiencing a slight decrease of livestock population fund, while the decrease in horse population is dramatic. The swine population is relatively stable, while since 2006 poultry population shows a considerable positive growing trend especially from 2013 whereby it has increased 2.5 times. In 2015, milk production in the BiH Federation amounted to 352 million liters, which accounted for 52% of total production in BiH and was higher by approximately 13% compared to 2006. In contrast to the period until 2006, when the total milk production was developing in line with the development of the permanent herd of cows, since 2007, the development has slowed (down to the 1.2% rate) and started relying primarily on the development of milk production per cow, owing to the improved breed composition.

Republic of Srpska: In the same period, the number of cattle in RS, especially dairy cattle, had a decreasing trend which was halted in 2012. Although the number of dairy cattle was decreasing, milk production was not due to increase of milk production capacity per cattle. The number of pigs has decreased by a quarter, while the number of sows and breeder pigs was almost halved. The number of sheep in RS increased slightly and the number of horses decreased. The number of poultry increased by almost 4 million, mainly due to their increase at large commercial farms. The biggest growth was seen in apiculture as in the ten year period the number of beehives increased by 50 thousand. In RS the cow milk production reached its peak in 2008, which was followed by a decline, and in recent years it has been stagnating at 320-330 million liters. Although the statistical figures on average milk production per dairy cow are lower (2,935 kg), following the productivity verification exercise that covered about 12% of dairy cows, it has been established that the average milk yield per cow is 5,689 kg p.a. (*Simmental*), and 6,632 kg p.a. (*Holstein*).

Brcko District Bosnia and Herzegovina: In BD BiH cattle farming by the end of 2014 had a growing trend including some oscillations. According to data from subsidy database, in 2015 there was a decrease in cattle and dairy cattle numbers by 9.5 % and by 9.1 % respectively, the number of pigs by 17.08 %, while the number of sows and breeder pigs increased by 17.85 %. The number of sheep for breeding increased by 3.85 % while the number of goats decreased by 31.97 %. The number of poultry and beehives also saw a decrease in 2015 by 15.81 % and 18.87 % respectively.

Large dairy farms are, and will remain, the backbone of the domestic dairy industry and their further modernization and increased economic efficiency are imperative. Given the fact that BiH has reached self-sufficiency in milk production, any increase in purchase and processing of milk depends on the exports of dairy products, while the local dairy plants are facing export barriers (meeting the standards of quality and origin) and strong competition. BiH primarily imports cheeses, butter and dairy spreads, and the local dairies successfully compete with the imports of UHT milk and fermented products, partly exporting their own. Local consumers do not show special loyalty to products of domestic origin, and their choice often primarily depends on the product price (Milk processing, 2016).

Total *meat production* in BiH is difficult to determine reliably due to a lack of accurate data, especially in the long run, given the fact that it cannot be identified by the number of slaughtered animals as adjusted by the difference in the number of imported and exported live animals. Starting from 2011, beef production has recorded a slight decrease, and the same trend has been seen in the production of mutton. In the pork production, a sharp decline has begun in 2013, while poultry meat production was the only one that recorded a steady growth in the analyzed period. Insufficient budgetary support and low (price) competitiveness in relation to the imports are the main reasons for such trends in the production of the major types of meat in BiH.

Federation of Bosnia and Herzegovina: Generally speaking, the volume of beef production in the Federation of FBiH does not meet the needs of domestic population and food industry, and is supplemented by imports. In spite of the fact that sheep farming revival has begun in the BiH Federation back in 1996, the volume of this production still does not meet the domestic needs and the imports of live lambs for slaughter continues to be high. In the sheep population in the BiH Federation, the prevailing breed is indigenous *Pramenka* sheep, as well as various crossbreeds of *Pramenka* sheep with other thoroughbred breeds of sheep bred for meat production. The ban on transhumance has led to a drastic reduction in the size of the herds. The current state of pig farming in BiH Federation is not at the satisfactory level and does not provide sufficient production of pork to meet the local needs. According to the production value, pig farming is – with the share of only 5-6%, - in last place among the livestock productions in the Federation of FBiH.

Republic of Srpska: Number of slaughtered cattle in RS recorded a constant decline, which corresponded with a decrease in the total number of cattle. In accordance with the need to increase cattle farming, RS MAWMF adopted the *Cattle Breeding Program in the Republic of Srpska* in 2016 the aim of which is to use planned cattle breeding to stimulate the increase of efficiency of cattle production and breeding, increase of cost-effectiveness of production, improvement of quality of cattle products and maintenance of cattle genetic diversity. Owing to natural preconditions for development of beef production, the breeding in the cow-calf system has been intensified. According to its natural characteristics and realistic development opportunities, pig production is high up in the structure of meat production in RS. Over the past ten years this production dropped significantly so that the share of pork meat in 2015 was down to 31% of the total meat production in RS. The tradition of sheep breeding in RS has a pronounced regional character. The level of devastation of areas under pastures, especially in Herzegovina region, leaves room for keeping, mainly, sheep and goats. In this region, economically very attractive type of sheep breeding has been developed, where sheep are in domicile pastures during winter and spring while during summer they are in precisely marked Herzegovinian and Bosnian mountains (Treskavica, wider region of Zelengora, Somina, Morina, etc.).

Brcko District Bosnia and Herzegovina: The number of slaughtered cattle and pigs in BD BiH in 2015 relative to 2014 has seen a certain increase.

Poultry farming, as a branch of livestock farming, has an important place in agricultural production, which arises from the fact that modern poultry farming is the most intensive form of livestock farming and has the characteristics of industrial production. Consumption of chicken meat in BiH is increasing, and so is the production. The number of slaughtered poultry in BiH was at 32 million units in 2015, i.e. 48 thousand tons of chicken meat. More than 90% of farmers who breed fattening broilers are organized through the system of cooperation with poultry slaughterhouses. Egg production (around 700 million eggs annually) is one of the rare productions where BiH is self-sufficient. Moderate increase in the production of table eggs has been recorded over the past years. Cage breeding is predominant and will be a special challenge for poultry industry in terms of meeting increasingly stringent EU criteria in the field of animal welfare.

Federation of Bosnia and Herzegovina: Production of poultry meat in FBiH is generally based on chicken meat production. Particular expansion of broiler production was seen in Zenica-Doboj Canton with two large poultry business leaders which, by organizing production and processing, in turn also caused establishment of ever greater number of broiler farms as well as increase in capacities of the already existing farms. In the 2006 – 2015 period, poultry meat production increased from 11.3 thousand tons to 37.3 thousand tons, and the number of slaughtered poultry rose from 8.4 million to 25.1 million. Average annual production of table eggs in FBiH, during the analyzed 2006 – 2015 period, was 246 million eggs which were laid by an average of 1.6 million egg-laying hens.

Republic of Srpska: According to unofficial information, there are about 176 broiler farms on the RS territory, with the turnover capacity from 2,000 to 100,000 broilers. Broiler farms are most highly concentrated in the Srbac region due to the fact that a large slaughterhouse owned by Perutnina Ptuj is located there. The number of slaughtered poultry rose from 2 million (2006) to 7 million (2015), and in turn the amount of poultry meat rose to 11.4, million tons in 2015. In recent years, annual production of chicken eggs in RS is at about 400 million eggs. Market oriented production of eggs *"is being carried by"* a small number of specialized commercial farms, while a large number of rural households still keeps chickens and produces eggs for own consumption only.

Brcko District Bosnia and Herzegovina: There are 15 broiler farms in existence in Brcko District BH.

Beekeeping in BiH is expanding. In relation to the 1981 Census data, BiH nowadays has twice as many beehives (393 thousand, 2015). Honey production has become an important source of additional income for rural households with available labor force, and these positive trends came as a result of the relatively small investments, possibility of adapting the number of hives to the available financial resources, simple storage requirements and the increasing price of honey. A number of producers is engaged in beekeeping professionally, while others practice it as a sideline activity or a hobby, however, their number should not be ignored as it is getting increasingly bigger. Honey production varies from 2.5 to 5 million kg annually, depending on the year.

Federation of Bosnia and Herzegovina: The number of beehives in FBiH is 229 thousand. Annual honey production is between 1.4 and 2.8 million tons, with the yield between 7 and 12.5 kg of honey per beehive.

Republic of Srpska: The number of beehives in RS reached 164 thousand in 2015. Honey production varies between 1 and 2 million tons annually, with an average yield between 7 and 12 kg of honey per beehive.

Brcko District Bosnia and Herzegovina: The number of beehives in BD BiH in 2015 was 9,994 beehives.

2.5. Equipment level of agricultural holdings

Agricultural holdings are generally equipped with basic agricultural machinery. However, it tends to be mostly old and often outdated. There are a small number of attachments per tractor, hence producers are frequently forced to outsource services or improvise execution of some works.

Republic of Srpska: Based on a survey conducted (only) in RS, over 70% of farms have a tractor and 18% of them more than one. On the other hand, almost 90% of tractors are 10 or more years old (not one farm had a combine harvester of less than 10 years old). Farms are relatively well equipped with the main tractor attachments (plow, disc harrow, trailer) while other types of tools (sowing machines, sprayers, manure spreaders, cisterns, diggers, etc.) are represented in far smaller numbers. The survey confirmed far better equipment level of farms in flat regions of RS and poor levels in hilly and mountainous regions. The situation regarding the level of agricultural machinery is probably somewhat better with legal persons, i.e. various types of business entities; however, due to low level of efficiency, they too do not replace the used agricultural machinery in timely fashion.

Similar as in the case of machinery, agricultural holdings have the main facilities in place for livestock production, storage of agricultural products and farm machinery. However, capacities and equipment level of these facilities are modest and they are mostly older facilities built and upgraded ad hoc and by farmers themselves without observing the standards which meet the rules of providing for animal welfare and of ensuring and maintaining the quality of agricultural products.

Federation of Bosnia and Herzegovina: Though similar data does not exist for FBiH, it could be concluded that the situation regarding the level of agricultural machinery and their age does not differ much.

Brcko District Bosnia and Herzegovina: For BD BiH, there is also no information but it is estimated that the situation is similar to that in the Entities.

Regardless of the lack of cost-effectiveness and small scope of the use of certain specialized machines and accessories, agricultural producers in BiH avoid joint purchase and ownership of agricultural machinery (experiments regarding development of 'machinery rings' in various parts of BiH were mostly unsuccessful).

Investment in replacement and procurement of new, specialized agricultural machinery is necessary for modernization of agricultural production and increasing its competitiveness while taking account of cost-effectiveness of such investment, i.e. give preference to larger farms or some models of joint use of machinery by a number of users.

2.6. Fisheries

Freshwater fishery is of economic importance for BiH. Depending on the species of fish breed (which depends on water quality and quantity) it is possible to differentiate between carp and trout fish farms (Salmonids and Cyprinids).

Federation of Bosnia and Herzegovina: Between 3,000 and 4,000 tons of trout for market was produced on average in FBiH in the period 2011-2015. FBiH has only 24 km of coastline and 1,400 ha of sea area. Though this is a small area for breeding sea products (fish and shells) it is still underused.

Republic of Srpska: Republic of Srpska has four large carp farms. Trout farms are larger in numbers. However, their individual and total size is considerably smaller than that of carp farms. In addition to these two types of fish farms, cage fish breeding in lakes and bigger rivers is growing. Production of carp and other Cyprinids is decreasing (1,104 t, 2015) while, on the other hand, production of trout is increasing both in size and quantity (1,889 t, 2015).

2.7. Organic and integrated farming

In response to the widespread deterioration in the quality of food and hazards to human health, the *organic farming* started to develop intensively. Organic farming is the production of safe and quality food in an environmentally sustainable manner. In BiH, organic agricultural production is mainly developed in the plant sector, production of honey, collection of medicinal herbs, forest fruits and mushrooms, as well as distillation of essential oils. In the system of organic production, farmers must apply strict regulations, and their end product must be certified, i.e. it must receive a certificate that it has been produced in compliance with the said regulations. Legislation in the area of organic production is adopted at Entity level (The Law on Organic Production “Official Gazette Republic of Srpska”, No. 12/13; The Law on Agricultural Organic Production, „Official Gazette of the Federation of BiH“, No. 72/16). The organic farming in BiH started developing in the 1990s of the last century, when the activities related to the promotion, application of the organic farming methods, quality control and certification began. Although BiH disposes of natural resources which are suitable for organic production, the number of producers involved in this type of production is rather small, and the quantities of organic food produced is modest.

Federation of Bosnia and Herzegovina: Statistics currently does not follow this type of production. Additionally, there are no registers of organic producers at the FBiH level. Export is mainly related to vegetables, fruits, medicinal herbs, fresh, frozen and dried mushrooms, as well as forest fruits (raspberries, blackberries, blueberries, cranberries, strawberries). There is no single certified organic cattle farm in FBiH, and only two farms are in the conversion process. Since 2009 *Union of organic producers association of Federation of Bosnia and Herzegovina-ORGANSKO FBiH is in existence*, which has 17 members (seven cantonal organic producer associations and 10 associations dealing with organic production development). ORGANSKO FBiH brings together about 2,000 agricultural producers.

Republic of Srpska: MAFWM RS is giving ever more attention to improving conditions for development of organic production. Agricultural producers in the organic production system and producers in the conversion process are supported financially through two organic production measures, and the producers are also eligible for financial subsidy support for all other measures provided for in the Rulebook. Association of organic producers and processors RS has been established in RS in 2015. In RS, 26 producers involved in organic agricultural production have been identified, and currently most of them are involved in medicinal herbs and berry fruit production.

Brcko District Bosnia and Herzegovina: In BD BiH although there are subsidies provided for organic production it can be concluded that there is a lack of interest for this type of production.

Apart from organic farming, integrated agricultural **production** is also environmentally acceptable and it involves principles of integrated plant protection, balanced agricultural practices and rational use of agro-chemical agents and fertilizers in the production process. In BiH, certification scheme for integrated production (which is voluntary) has not been developed to date.

2.8. Medicinal, aromatic and wild herbs

According to the FTC data, annual exports of the *medicinal and aromatic plants, forest fruits and wild mushrooms sector* in BiH exceed BAM 32 million. Traditionally, collection/natural habitat harvesting has dominated the medicinal and aromatic plant (MAP) sector in BiH. However, more recently, there is an increasing trend for cultivation of certain products. The number of families engaged in MAP collection in BiH is estimated at approximately 50,000 of which almost 3,000 are organized in over 50 companies which purchase medicinal herbs. Most of the collectors earn their incomes solely by collection of herbs, mushrooms and forest fruits. Whilst there are no exact information on the volumes that are collected, according to estimates, between 1,500 and 9,000 tons of dried herbs are collected annually (USAID/Sida FARMA project, 2010). In addition to collection and processing of wild herbs, fruits and mushrooms, there are also a number of producers engaged in growing medicinal herbs on plantations (such as chamomile, mint, immortelle, lavender, balm etc.). Most of export-oriented companies hold organic certificates for trade on international markets.

Republic of Srpska: In addition to collecting and processing wild medicinal herbs, there are also a certain number of producers engaged in plantation cultivation of medicinal herbs (chamomile, mint, sage, immortelle etc.) and some of them have even entered into the medicinal herbs organic production certification process. In RS, in 2016, medicinal and aromatic herbs were sown on 158 ha by 44 legal entities and 114 family farms (RS Institute of Statistics, 2015). Purchased or produced medicinal herbs are dried and sold to pharmaceuticals industry, mainly abroad. The producers process a certain amount themselves and subsequently place it on the market. Medicinal herbs essential oils production should not be disregarded as well. The main purchasers of medicinal herbs from the RS territory (although purchases often "cross" Entity lines) and processors are from the Trebinje and Banja Luka regions.

Medicinal herbs purchasers group is trying to add value to these products by producing various sorts of tea, cosmetics and essential oils. This is mostly about processing plantation grown medicinal herb species (chamomile, lemon balm, immortelle, sage, lavender, bay leaf) and coniferous needle trees (pine, fir and spruce needles) into essential oils by distillation.

Federation of Bosnia and Herzegovina: There is no exact information for FBiH on cultivated surfaces, but it is estimated that only immortelle is cultivated on over 1.000 ha (FBiH Association of Immortelle producers). This increase in production has inevitably triggered an increase in the export of essential oils which in 2016 is estimated to be worth between 3 to 8 million KM in value, with increasing volumes estimated in 2017 and beyond. Although the MAP is of increasing economic (and social) importance, it remains largely unregulated and financially unsupported in policy terms. Legislation and implementing regulations that do exist are only available at entity level, and relate mostly to more general environmental protection regulations and good agricultural and collection practice guidelines.

The Law on Forestry and relevant by-laws that could regulate this area of production in FBiH are not yet adopted. In FBiH, 2014 The Red list of endangered wild species and sub-species of plants, animals and mushrooms was published ("Official Gazette Federation BiH", No. 7/14). And there is a lack of effective inspection services which would reduce the MAP grey-market and limit over-picking of protected and endangered species.

Brcko District Bosnia and Herzegovina: In BD BiH there are subsidies offered for medicinal and spice herbs but there is a lack of interest for this type of production.

2.9. Efficiency and competitiveness of agricultural production

2.9.1. Efficiency of agricultural production

In order to determine the *efficiency of agricultural production*, data on the key financial indicators (income, costs, profit, number of employees, etc.) are needed, however, they are not available given that the BiH agricultural sector is dominated by small-scale farms. Large number of farms, even when they are registered as commercial, do not undertake regular bookkeeping and do not have the obligation of reporting on financial results achieved. The system for the collection and analysis of farm accountancy data (FADN), which is used to provide such data from a selected sample of farms from EU Member States, is currently not developed to a satisfactory level in BiH.

2.9.2. Average yield generated

The *average yields* generated per unit area are one of the ways to measure productivity of agricultural production according to one production factor – land. BiH lacks data on engaged work (quantity of produced products relative to the number of invested working hours) to calculate work productivity. 16 distinctive agricultural products of largest importance for agricultural production in BiH are selected to compare the average yields generated. The comparison is done based on the data from FAOSTAT database (FAOSTAT, 2017). All data on average yields subject to comparison are brought down to 9-year averages for 2006-2014 period (data for 2015 have not been available) in order to eliminate seasonal impacts of unfavorable years and are shown separately for each Entity.

Table 3: Comparative overview of average yields in BiH Entities, neighboring countries and the EU (2006-2014 average)

Product	Unit of measurement	BiH Federation	Republic of Srpska	Serbia	Croatia	EU
Maize	t/ha	4,2	4,8	5,2	8,1	6,9
Wheat	t/ha	3,6	3,4	3,8	4,8	5,3
Oat	t/ha	2,6	2,5	2,2	2,8	2,9
Barley	t/ha	2,8	3,3	3,3	3,9	4,4
Rye	t/ha	3,3	2,6	2,4	2,7	3,4
Soya	t/ha	2,1	1,8	2,6	2,5	2,7
Tobacco	t/ha	0,9	1,6	1,6	2,0	2,3
Oilseed rape	t/ha	2,2	2,3	2,5	2,7	3,1
Sunflower	t/ha	0,9	0,9	2,3	2,8	1,8
Potato	t/ha	9,6	10,7	11,4	16,4	29,9
Beans	t/ha	1,3	1,4	1,6	1,2	1,6
Cabbage and kale	t/ha	13,2	13,7	18,5	21,4	30,0
Tomato	t/ha	11,3	10,9	11,6	32,3	57,4

Product	Unit of measurement	BiH Federation	Republic of Srpska	Serbia	Croatia	EU
Strawberry	t/ha	9,3	4,7	4,8	10,2	10,7
Raspberry	t/ha	7,0	7,6	5,6	3,2	4,4
Milk	kg/livestock unit	2.236	2.800	2.980	4.007	6.279

Sources of information: Plant production bulletins of the Federal statistics institute; Announcements by the Republic statistics institute of Republic of Srpska; Announcements of the Statistics agency BiH; FAOSTAT

The only product whose yields per ha in BiH are greater than the yields in the EU and neighboring countries is raspberry production, despite the fact that sector representatives often dispute the statistical data on raspberry yields, claiming that the actual average is considerably higher. All data on average yields generated in FBiH and RS, and thus in BiH, indicate that there is room and need to increase productivity in almost all areas of agricultural production. Efficient increase of productivity would increase farm and rural household incomes and increases interest of agricultural producers to engage in specific types of agricultural production.

2.9.3. Import to export ratio

In the 2006-2015 period BiH had a negative foreign trade balance (deficit) in all years, while the import to export ratio was even more unfavorable regarding agricultural and food products. The *index of relative import to export ratio* (deficit of a given tariff group compared to the total deficit) shows continuous advantages only for fish, and in some years for milk and milk products (2009-2013), fats and oil of vegetable and animal origin (2013-2015), and fruit and vegetable products (2006-2010). Most other products saw a deficit larger than the average deficit of BiH foreign trade.

Net export index, calculated as a ratio of difference between export and import (surplus or deficit) of a specific product or group of products and aggregate of export and import of the same product at the BiH level, was negative for all 24 chapters of harmonized tariff during the entire analyzed period (2006-2015) meaning that continuous deficit in foreign trade was recorded for all groups of agricultural and food products. However, it is encouraging that negative value of this index is decreasing for most products, though at a very slow pace.

The previous and other data on BiH foreign trade indicate that the situation is alarming and that, despite sound natural resources, food import is enormous since foreign trade deficit of agricultural and food products amounted to around BAM 2 billion during the past years.

Foreign trade deficit of agricultural and food products is a consequence of a lack of competitiveness of local agricultural production the causes of which include: low productivity, unstandardized quality and product origin, small-scale subsidies and liberal foreign trade regime.

2.10. Food industry

Most companies in the BiH *food industry* are privatized, with a small number of state owned companies which remain in operation. At the same time, new *greenfield* investments have been made in various sub-sectors which have partially compensated for the collapse of pre-war food industry capacities.

However, many local entrepreneurs in the food industry are not particularly sensitive to the challenges and needs of local farmers and this has often resulted in the import of primary products to meet processor demand as a more reliable and consistent supply chain rather than purchasing from local producers where the quantity (volume), quality and reliability are often problematic. Dealers act similarly and are largely indifferent to the origin of the goods that they sell. Overall, the food industry in BiH is in its development phase requiring greater investment and capacity building to improve all aspects of efficiency of doing business from primary supply to final marketing and sales.

Federation of Bosnia and Herzegovina: According to the available data, insufficient use of installed capacities continues to pose one of the bigger problems for the food industry in FBiH. The highest level of utilization of installed capacities is in fruit and vegetable processing (62%), milk processing (56%) and production of beverages (54%) while quite low level of utilization is found in production of mineral water (16%), wine (16%) and biscuits and waffles (19%). (MoFTER, 2016)

Republic of Srpska: Regardless of RS food industry situation being unsatisfactory, its value in total sales of RS industry sectors is at 16.5% (additional 1.4% for production of beverages and 0.4% for production of tobacco products). Gross added value of food products produced in RS was BAM 201 million in 2015, and overall business result of this sector was positive. The food industry growth rate was at 121% in 2015, 115% in 2014 and 108% in 2013. At the same time, employment growth was slower indicating that productivity in food industry is increasing. The utilization rate of food industry capacities is low also in RS and ranges between 12% and 60%, depending on the industry branch.

Brcko District Bosnia and Herzegovina: In 2015, food industry contributed to the total BD BiH industry with 56.91 %, in GAV with 8.76 % and in GDP with 6.85%.

2.11. Foreign trade

One of the most significant characteristics of total BiH economy is the high *foreign trade deficit* and dependency on imports where agriculture and food sector has a very important place. BiH is a pronounced net importer of agricultural and food products which substantially contributes to poor image of BiH foreign trade. The state of BiH foreign trade in 2006-2015 period is summarized in the table below (according to the BiH Foreign Trade Chamber data).

Table 4: Share of agriculture & food products in total BiH foreign trade (2006-2015), millions (BAM)

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total export of goods	5.164	5.937	6.712	5.531	7.096	8.222	7.858	8.381	8.682	8.987
Total import of goods	11.389	13.898	16.293	12.355	13.616	15.526	15.253	15.169	16.200	15.852
Trade balance	-6.224	-7.962	-9.581	-6.824	-6.521	-7.304	-7.395	-6.789	-7.518	-6.864
AFP export	270,2	336,1	424,5	466,0	563,7	621,2	620,7	685,4	661,7	840,1
Share of AFO in total exports	5,2%	5,7%	6,3%	8,4%	7,9%	7,6%	7,9%	8,2%	7,6%	9,4%
Import of AFP	1.923,5	2.210,6	2.580,8	2.365,8	2.466,7	2.745,4	2.788,9	2.725,4	2.728,9	2.862,1
Share of AFP in total imports	16,9%	15,9%	15,8%	19,2%	18,1%	17,7%	18,3%	18,0%	16,8%	18,1%

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Trade balance in AFP	-1.653,7	-1.874,9	-2.156,8	-1.900,3	-1.903,4	-2.124,6	-2.168,7	-2.040,5	-2.067,7	-2.022,5
Import-export rate for AFP	14,0%	15,2%	16,4%	19,7%	22,9%	22,6%	22,3%	25,1%	24,2%	29,4%

Source: Foreign trade chamber BiH

In 2015, with BAM 840 million the share of agriculture and food sector in the value of BiH export was 9.4% and with BAM 2,862 million its share in total BiH import was 18.1%. The import to export ratio of agricultural and food products is still very low and was at 29.4% in 2015. Total trade balance in agricultural and food products was negative in 2015 (BAM - 2,022.5 million) and accounted for 29.5% of total BiH trade deficit. Despite positive and promising developments, the state of play of foreign trade in agricultural and food products is still poor given that the deficit is large and unsustainable in long-run.

2.11.1. Trade of important groups of agricultural and food products

In 2006-2015 period a certain number of groups of agricultural and food products recorded substantial export growth. From only BAM 2 million in 2006 meat and edible meat offal production reached the level of almost BAM 100 million in 2015. Milk and dairy products recorded a continuous export growth until 2013 when this trend ceased and showed a decline due to Croatia's entry into the EU and stricter export rules. The detail structure of this trade shows that BiH exports more of dairy products of lower processing phases and imports more of value added products where deficit is created by substantially bigger import than export of cheeses. The export of fresh vegetables also recorded growth but significantly lags behind compared to the export of fresh fruits. Fruits export was intensified, in particular in 2013-2015 period primarily to countries such as Russian Federation when favorable trade position was utilized due to embargo imposed over this country by the EU MS. Export of fresh fruits increased by almost five times and from BAM 22.7 million in 2006 reached BAM 103 million in 2015. Export growth trend is observable regarding the production of vegetable or animal origin oils, meat and meat products, and preparations of cereal and flour. Positive developments were observed as regards BiH beverage producers (tariff group 22) which doubled the total export of their products from BAM 18.8 million in 2006 to BAM 44.1 million as was the value of total export in 2015.

In the same period (2006-2015) period most groups of agricultural and food products continued their growth trends in BiH import while only few products saw stagnation in a certain period and maintained previously established levels. Live animal import had a pronounced increasing trend between 2006 and 2009 after which the achieved level of around BAM 100 million persisted over the next 5 years only to record a decrease over the past years with the exception of 2015. Import of meat and edible meat offal recorded continuous growth and increased by almost four times from BAM 64.3 million in 2006 to BAM 255.1 million in 2015 as a result of negative developments in BiH animal production and lack of competitive prices of local meat production. Milk and dairy products recorded continuous increase in imports until 2013 when, due to Croatia entering the EU, trade ratios of this group of products were affected and their total import declined. Unfortunately, products for which BiH has very favorable conditions – fresh fruits and vegetables – recorded increasing trends in imports in the analyzed 2006-2015 period. Import of fresh vegetables increased from BAM 52.4 million (2006) to BAM 75.5 million (2015) while import of fresh fruits increased from BAM 104.6 million (2006) to BAM

147.1 million (2015). BiH is to a large extent dependent on import of cereals and the value of import of these products is largely determined by local production and climate conditions in which this production was implemented. Total import of cereals varies between BAM 150 and BAM 250 million. Substantial increase of import was recorded for vegetable or animal origin fats group of products and for preparations of cereals and flour. From 2012 import of meat products recorded a decreasing trend as a result of strengthening of local processing industry. Import of beverages from tariff group 22 showed a slight increase trend in 2006-2015 period. However, given the trend of BiH export of these products, it can be concluded that in fact this group of products saw a stagnating trend in trade balance over the past 7 years ranging between BAM 255 and 275 million.

2.11.2. Important BiH foreign trade partners in the sector of agricultural and food products

The most important BiH export partners for agricultural and food products are Western Balkan countries, i.e. CEFTA, and EU-28 countries. The value of foreign trade with these partners saw considerable changes over the analyzed 2006-2015 period. They reflect other changes such as entry of Bulgaria, Romania and Croatia into the EU, and also BiH, Serbia, Croatia (until entry into the EU), Macedonia and other countries with which BiH has intensive foreign trade in agricultural products acceding to CEFTA Agreement in 2006. BiH has the largest values of exports of agricultural and food products with Western Balkan countries and it saw a growing trend until 2012 after which, due to the new status of Croatia as the EU MS, these values decreased but still make up the largest share of total imports. EU countries are second most important BiH market for exporting agricultural and food products. BiH export to the EU has been increasing continuously and with Croatia, as very important BiH partner, entering the EU in 2013, it was further increased to reach the level of BAM 256.5 million in 2015. Despite the increasing trends of BiH export of agricultural and food products into the EU MS, it is still very modest and far from actual possibilities. Increasing competitiveness of BiH products accompanied by meeting phytosanitary and other standards are the most important factors to increase exports into the demanding EU market. Milk and dairy product producers showed that this is possible. Turkey and Russian Federation have singled out among other countries which have been significantly increasing their share in total BiH exports (35% in 2015) over the past years.

2.11.3. Market infrastructure

Contemporary times are characterized by reduced direct contacts between buyers and sellers and involvement of specialized agents in the distribution channels. All this is applicable to agricultural and food products. The number of intermediaries depends on the product characteristics and organization of marketing activities. Small quantities of agricultural products are sold via direct sales on agricultural holdings or at green or livestock markets. The volume of sales on these markets is declining as well as the volume of direct sales on farms since food consumers are more oriented to buying food in supermarkets/hypermarkets due to fast-paced life. There are positive examples of reviving purchase of agricultural products directly from known producers which largely depends on the initiative, supply and organization of agricultural producers.

High level of fragmentation in supply chain along with a huge number of small-scale producers and similar fragmentation of processors cause increase in trade costs; and retail network benefits most from local trade in agricultural and food outputs. Lack of linkages and disorganization deprive farmers of possibility to negotiate with suppliers on favorable purchase

terms and conditions of larger quantities of inputs such as seeds, mineral fertilizers, protection agents, etc. Due to seasonality and lack of storing capacities for their products, fruit and vegetable producers are not able to generate bigger income. Similar to other agricultural producers in BiH, they are poorly organized and production for a prominent buyer is almost non-existent. This is accompanied by ineffective tariffs, poor transport network and a lack of market information system which all results in low income of food producers in the country.

Predomination of fragmented agricultural holdings, small-scale production and supply of certain agricultural products determined the position of cooperatives (during the previous period they were defined as rural, agricultural or farmer) in both Entities and in BD BiH as a significant participant in linking the value chains between producers and consumers. They were a successful model of linking agricultural producers with processors and consumers in the country and abroad but unfortunately lost this role during the transition process.

Federation of Bosnia and Herzegovina: Over the past years the number of cooperatives in FBiH has been growing continually, and according to data of registration courts there are 230 agricultural and 40 other cooperatives registered in FBiH which have brought together 12,000 members and around 45,000 cooperants (Republic of Srpska, FBiH MAWMF, 2014).

Republic of Srpska: There are around 300 farmers' cooperatives in RS. When developing the RS Program for Development of Agricultural Cooperatives 2011-2016 (RS MAFWM, 2011) it was identified that there are 347 cooperatives in RS, noting that 2/3 are inactive and only 1/3 active.

Brcko District Bosnia and Herzegovina: In BD BiH, there are 7 collectives in existence as well as the Collectives Union BD BiH.

Not being able to rely on cooperatives, local processors of agricultural products for which cooperatives represent the source of inputs for further processing (diaries, slaughterhouses, processors of industrial plants, fruits, vegetables, etc.) were forced to organize buyout of inputs on their own, directly or through intermediaries.

The unfavorable aspect of agricultural input market is that input producers are almost non-existent in BiH and inputs are largely imported. Seed production is poor and production of seedling material is insufficient. Though internal input market is liberal, producers do not see benefits from low prices of imported inputs. Traders have the biggest benefits from these prices which results in low competitiveness of local agricultural production. In its report on the state of play in BiH agriculture in 2010, World Bank noted that farmers in BiH pay more for their inputs and receive less for their outputs making them less competitive relative to their equivalents in neighboring countries. (The World Bank, 2010)

2.12. Agricultural producers

According to the BHAS methodology and the statistics institutes, *agricultural producers*, i.e. entrepreneurs in BiH agricultural sector, are divided into those which have registered agricultural operations, and which are most widely referred to in local terminology as legal persons, and those that do not have registered agricultural operations but are engaged in agricultural production, and are referred to as natural persons. The category of legal persons includes business entities which are, depending on their organizational form, divided into joint stock companies, limited liability companies and farmer's cooperatives, while category of natural persons includes agricultural holdings (farms).

Federation of Bosnia and Herzegovina: According to Financial Intelligence Agency (FIA) data, in 2015 there were 577 business entities registered in agriculture, forestry and fisheries

(area A) in Federation BiH, which is 14 companies more than in 2014. Since 2011 there has been a steady upward trend in the number of companies.

In addition to legal entities, the remaining part of agricultural production relates to the farms. According to the results of 2013 population census BiH (FIS, 2016) there are 217,061 rural households engaged in agricultural activities (30.32% of total number of households) in FBiH out of which only 30,089 or 13.86% said to also sell their products on the market. According to data from March 2017 (MAWMF FBiH, 2017) there were total of 69,542 farms from BiH Federation registered with the Farm Register out of which 2,986 registered legal persons while the remaining 66,556 are family farms.

Republic of Srpska: One of the sources which may be used to determine the number of legal persons registered for agricultural activities is the register of financial reports which all legal persons in RS have to submit the at the year-end to the APIF. The 2015 reports were submitted by 330 business entities from RS (mostly limited liability companies, followed by cooperatives, and only a few joint stock companies). The same reports were submitted by 338 business entities in 2011; hence a stagnating trend could be noted.

According to the 2013 population census in RS, there were 140,960 rural households in RS engaged in agricultural activities (34.48% of total number of households) out of which only 18% (25,335) said to sell their products on the market (RS Institute of Statistics, 2016). At the end of 2016 there were 35,093 agricultural holdings from RS registered with the RAG out of which 603 had the status of legal person and the remaining 34,490 of family farms (RS MAFWM, 2017).

Brcko District Bosnia and Herzegovina: At the end of 2015 there were 3,215 agricultural holdings from the territory of BiH BD registered with the Farm Register (MoFTER, 2015).

In general, around 1.000 legal persons and around 360 thousand rural households, of which one-third is registered as agricultural holding in the Farm Register in FBiH, RS and BD are engaged in agricultural production in BiH. In the absence of detailed analysis of data on rural households engaged in agricultural activities in the context of their structure according to the size of used agricultural land, i.e. number of certain species of livestock, limited data on agricultural holdings and their structure obtained through the 2010 Pilot Agricultural Census are used for the purpose of this analysis (BHAS, FIS and RIS 2010). According to this data, the average size of used land is 1.97 ha per agricultural holding with average 4 parcels, which is far below the EU 27 average of 14.3 ha (EUROSTAT). These data as well as official population census data from 2013. On the number of agricultural holdings indicate one of the key issues faced by FBiH, RS and BD BiH – large number of agricultural holdings resulting in small holding size and economic and production power. If we add to this the small average size of land holding, pronounced holding fragmentation and dual character of production, all known facts, it is clear that BiH is faced with the challenge of insufficient size and structure of agricultural holdings which is imposed as an important issue and strategic priority that needs to be addressed in the future.

2.13. Policy, legal and institutional environment

2.13.1. Legal environment

In accordance with the Constitution of Bosnia and Herzegovina Agricultural policies are developed at Entity level and in Federation BiH at the Cantonal levels as well. At the Entity level design and implementation of agricultural policy is conducted by the Federal Ministry of agriculture, water management and forestry and the Ministry of agriculture, forestry and water

management of Republic of Srpska, while in Brcko District by the Department for agriculture, forestry and water management. In Federation BiH, in addition to the Entity level there is a Cantonal level structure (10 cantons) for agriculture policy and administration. Moreover, in both Entities, certain agriculture and rural development are provided by municipalities as well.

At the Bosnia and Herzegovina State level, MOFTER has the competency related to foreign trade and customs policy as well as conducting activities and tasks at the State level competency related to defining policy, main principles, coordination activities and harmonizing Entity authorities' plans with international institutions in the area of agriculture.

In accordance with the Constitution and relevant competencies, laws and by-laws are developed and adopted at the BiH state, Entirety, BD BiH and Cantonal (in FBiH) levels. Such legal system whereby different regulations apply at different administrative levels in BiH requires their harmonization especially in the wider context of European integration.

Over the past 20 years, dozens of laws and their amendments have been passed at the Entity level. In addition to laws, hundreds of bylaws, rulebooks, instructions, decisions, decrees and programs have also been adopted. A number of these acts, and laws in particular, has been harmonized with the EU *Acquis Communautaire*, which is being carefully taken account of, especially in the years since BiH submitted its application for EU membership on 15.02.2016.

The framework goals of the agriculture and food sector and rural development at the BiH level are defined by the BiH Law on Agriculture, Food and Rural Development of BiH (“Official Gazette BiH”, No 50/2008).

Federation of Bosnia and Herzegovina: FBiH agricultural policy is broadly defined by the Law on Agriculture of BiH Federation (“Official Gazette Federation BiH”, No 88/07, 04/10, 27/12, 07/13) which sets the objectives and measures of agricultural policy in this Entity. This Law launched processes to strengthen competitiveness and improve quality of agricultural and food products and apply standards needed to achieve more dynamic development in the sector of agriculture, processing and rural development. The Law clearly sets the EU integration path in a way that support measures for agriculture and rural development will be gradually aligned at all governmental levels with the aim of harmonization with the relevant EU measures.

However, very important Law in the area of support to agriculture at the level of Federation BiH is the Law on Financial Support in Agriculture and Rural Development (“Official Gazette Federation BiH”, No 42/10). This Law (i) lays down the financial support measures in agriculture and rural development and provides support models and manner of their implementation, (ii) emphasizes the importance of implementation in accordance with the BiH obligations and signed agreements such is the Stabilization and Association Agreement with the EU, and (iii) aligns Entity and Cantonal level of support as this support does not match in terms of its basis and criteria. Agricultural policy is implemented according to the Mid-term development strategy of agricultural sector in FBiH for the 2015-2019 period, which is a group of basic principles setting the goals, measures and mechanisms of all agricultural policies of this BiH Entity. Mid-term development strategy of agricultural sector in FBiH (2006-2010) was an important document used to draft and implement agricultural policies in FBiH and in the absence of a new such document, with approval of the FBiH Government on extending its validity for two additional years, it was implemented until the end of 2012, whereby action plans of the Strategy (for agriculture, land management, rural development and food industry) were updated. The new strategic document for 2015-2019 period (adopted by the FBiH Parliament in mid-2015) stressed the need to increase technical and technological level of the sector, efficient use of available resources and improve the overall living standard and quality of life in rural areas. The current Strategy plans for implementation of 37 measures distributed

within 3 pillars of agricultural policy – 10 measures relate to Pillar One and direct support to producers, 17 measures relate to Pillar II namely sector restructuring and rural development policy (taken from proposal of FBiH Rural Development Program 2018-2021) while the remaining 10 measures are related to Pillar Three of Entity level agricultural policy and measures under the general services in agriculture.

Republic of Srpska: The legal framework for implementation of agricultural policy in RS includes primary and secondary legislation and strategic documents related to the development of entire sector or rural areas in this BiH Entity. RS Law on Administration (“Official Gazette Republic of Srpska”, No 118/08, 11/09, 74/10, 86/10, 24/12 and 121/12, 15/16 and 57/16), defines the role of the Ministry of Agriculture, Water Management and Forestry as institution in charge of administrative and expert activities regarding designing and implementing agricultural policy. RS Law on Agriculture (“Official Gazette Republic of Srpska”, No 70/06) sets agricultural policy goals and measures, and manner of its implementation and monitoring. RS Law on Agriculture provides for agricultural policy to be implemented based on the RS Strategy for Development of Agriculture as a group of basic principles setting the objectives, measures and instruments of agricultural policy. Republic of Srpska initially had 2 distinct strategic documents which covered two complementary areas, i.e. agriculture and rural development – RS Strategy for Development of Agriculture until 2015 and RS Strategic Plan of Rural Development 2010-2015. It could be noted that the latter document was innovative and largely compatible with the EU rural development policy applicable at the time; however after its expiry it can be said that its strategic goals and specific objectives and measures largely have not been implemented in the planned scope and manner. The new RS Strategic Plan for Development of Agriculture and Rural Areas 2016-2020 has been timely adopted, prior to the expiry of the two above mentioned strategic documents, thus providing for continuity in strategic planning of agricultural and rural policy. Unlike in the past period, new strategic document covers both areas – agriculture and rural development. The current Strategic Plan for Development of Agriculture and Rural Areas includes 6 strategic goals, 16 specific objectives and 52 measures for their implementation. It is expected that implementation of this strategic document will increase the volume and productivity of agricultural production and provide income stability for agricultural producers, strengthen competitiveness of agricultural sector by increasing investment level, increase the level of marketability of and finalization in agricultural production, provide for sustainable management of natural resources and mitigate consequences of climate changes, balanced integrated rural development and systematic support to development of agriculture and rural areas. This Plan provides for partial reform of thus far support policy which is along the lines of alignment with the financial support policy effective in the EU, in particular for countries that recently acceded to the EU (transition to direct payments per area unit and per animal). The basis for continuous securing of funds is the Law on securing and directing funds for supporting development of agriculture and rural areas (“Official Gazette Republic of Srpska”, No 43/02 and 106/09). Initially, this law was supposed to ensure that the secured funds are primarily used for interventions in agriculture by paying premiums, reimbursements and co-financing various programs and projects as well as investments in agriculture by reimbursing interest on bank loans given to agricultural holdings. In subsequent amendments, the Law stipulates that the incentive funds are to be distributed in accordance with the agriculture policy determined by the Strategy of agricultural development of Republic of Srpska.

Breko District Bosnia and Herzegovina: Agricultural holdings income policy, production policy, structural policy and rural development policy in BD BiH can all be seen in the context of the Law on agricultural production subsidies. The objective of this Law was to secure long-term subsidies which would allow establishment and improvement of commercial agricultural

production, keep the population in rural areas and comprehensive rural development in BD BiH. The amount of subsidies is determined separately for each budget year and may not be less than 4,000,000.00 KM, of the BD BiH annual budget. The Rulebook on manner and conditions for subsidies in agricultural production is adopted for each fiscal year and it regulates all the conditions necessary for obtaining subsidy funds.

2.13.2. Budgetary transfers for agricultural policy

The EU integration processes require adaptation and redefining of agricultural policy. Due to differences in its concept and measures, accession to the EU is an economic and political challenge for each EU aspirant. Since BiH is a country which applied for candidate status, it is very important to have knowledge on the achieved level of support to agriculture and rural areas compared to the harmonized EU standards. Methodological tool called Agri-Policy Measures tool (APM), developed by Rednak and Volk, was used to analyze and compare agricultural policy of BiH as a country preparing itself for the entry into the EU with the EU CAP. Agricultural policy of BiH, and its Entities – BiH Federation and Republic of Srpska – and Brcko District, is consisted of 3 pillars, i.e. groups of measures, as follows: (I) Market and direct producer support measures; (II) Structural and rural development measures, and (III) General measures related to agriculture.

Table 5: Overview of budget allocations for agriculture and rural areas, FBiH, RS BD BiH and BiH, (2006-2015 period), in millions (BAM)

Administrative unit/ Group of measures	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Federation BiH										
I Market and direct support measures	27,6	33,2	49,3	44,4	56,2	63,3	48,9	69,5	60,7	65,9
II Structural and rural development measures	5,5	22,2	28,1	23,6	19,2	7,8	35,3	1,7	11,2	2,3
III General measures in agriculture	2,0	4,4	5,5	2,1	1,8	0,8	1,0	2,5	0,5	0,4
Total budget support	35,2	59,8	82,8	70,0	77,2	71,9	85,2	73,7	72,4	68,6
Republic of Srpska										
I Market and direct support measures	29,4	48,4	51,0	59,1	39,8	51,5	48,7	45,7	46,7	48,2
II Structural and rural development measures	13,3	15,2	17,2	13,1	23,2	26,1	21,8	10,8	6,5	7,8
III General measures in agriculture	5,1	7,5	11,6	8,5	1,7	2,8	2,8	3,5	6,9	4,0
Total budget support	47,8	71,1	79,7	80,6	64,8	80,5	73,3	60,0	60,0	60,0
Brcko District BiH										
I Market and direct support measures	5,1	4,4	4,3	5,4	4,5	4,0	5,8	5,9	3,4	5,2
II Structural and rural development measures	0,3	0,4	0,2	0,7	0,5	0,6	0,7	0,7	0,2	0,4
III General measures in agriculture	0,0	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0

Administrative unit/ Group of measures	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total budget support	5,4	4,9	4,6	6,1	5,1	4,6	6,5	6,7	3,6	5,5
BiH										
I Market and direct support measures	62,2	86,0	104,6	108,8	100,5	118,8	103,4	121,1	110,8	119,3
II Structural and rural development measures	19,1	37,7	45,5	37,3	42,9	34,5	57,8	13,2	17,9	10,5
III General measures in agriculture	7,1	12,1	17,1	10,5	3,5	3,6	3,8	6,0	7,4	4,4
Total budget support	88,4	135,8	167,1	156,7	146,9	156,9	165,0	140,3	136,1	134,2

Source: APM database of the FAO/JRC/SWG project based on processed data obtained from FMAWMF, MAWMFRS and DAFWM BD BiH

Direct producer support measures are the most important form of thus far budgetary support to agricultural producers in BiH. They are composed of direct payments based on the quantity of products sold and payments per area or animal, and payments for variable agricultural inputs. As the most important form of direct producer support in BiH, direct payments significantly differ among BiH administrative units both in terms of approach and figures. The common denominator is variations in support and inconsistent policy as a result of economic crisis, the consequence of which was decreased funding for agricultural sector.

Federation of Bosnia and Herzegovina: It can be said that in this BiH Entity there is a slight increase of total direct support to producers, with distinct variations from year to year, which rose from 27.1 million KM (2006) to 65.4 million KM (2015). Direct payments to producers are actually the only form of this type of support, while modest support to variable inputs comes exclusively from the Cantonal administrative level. With respect to this Entity, it is important to underline that the direct support implementation system has changed and from 2011 for almost all plant production payments per kg have instead been switched to payments per unit area. Nevertheless, not even this change had much impact on direct payments structure. Moreover, it is evident that in 2014 and 2015 output based payments prevailed. It seems that high payments to milk producers (based on volume sold), determine the structure of this type of support in FBiH.

Republic of Srpska: In RS, negative trend of budget allocations for measures of direct support to producers is noticeable, starting from 2009 and lasting until 2015. Allocations for direct support to producers are smaller every year relative to the year before and thus this budgetary support decreased from 58.1 million KM in 2009 to only 47.0 million KM in 2015. With regards to structure of the measures, unlike in FBiH, support for variable inputs also has a significant place next to direct payments. In certain years (2011), subsidizing variable inputs reached almost half of the total direct support, but in recent years share of this type of support is lower and ranges about 12-20%. Since 2009, output based payments dominate and on average make up 85% of total direct payments, with the absolute amounts ranging from 16.6 million KM (2011) and 37 million KM (2014).

Brcko District Bosnia and Herzegovina: In this BiH administrative unit, in 2009 uniform direct payment support per unit area/livestock was introduced. The level of these allocations was quite uneven and varied from BAM 3.4 million (2014) to BAM 5.9 million (2013) in the analyzed period.

The existing structure of the main budgetary allocations – direct payments in BiH and its

Entities and BD BiH and substantial share of payments based on products sold show that there is still a gap and insufficient level of harmonization in the context of EU integration and approximation to the EU CAP. This issue has been recognized in the new strategic frameworks developed by both BiH Entities, which foresee that virtually all direct payments are based on area/animal.

It has to be emphasized that direct payments are very sensitive issue in all BiH administrative units and are sometimes a reason of dissatisfaction and social unrest of agricultural producers (delays in disbursement of funds, budget development). Additionally, one of the bigger issues for direct payment measures in BiH Entities is their administration and control which are surely one of the key requirements BiH must fulfill before acceding to the EU. Although Entities and BD BiH already have agricultural holdings registers which are alphanumeric only minimal intervention is needed in order to harmonize them with EU (definition of a holding and property registration system), as well as defining an information exchange system. Currently, the biggest problem for implementation of direct payment measures is the lack of adequate surveillance in agricultural land identification (LPIS system), as well as non-updated domestic animals register, leaving opportunity for abuse and inefficient solutions.

As is the case with the policy of direct support to agricultural producers, rural development policy is different between the Entities and Brcko District. This difference is reflected in the level of allocation of budgetary funds for this purpose, structure of support and approach towards the 3 axis of rural policy.

Federation of Bosnia and Herzegovina Support to rural development in FBiH recorded substantial increase from 2007 (BAM 22.2 million) to 2012 (BAM 35.3 million) after which it saw a sharp decline and was at only BAM 2.3 million in 2015.. This is primarily because political structures still do not recognize the importance of its development component while, on the other hand, rural population and potential beneficiaries of this support still do not see rural development measures as an opportunity to become modern farmers and competitive in the market. Almost all allocations for rural development in FBiH were focused on measures under Pillar 1 – improvement of competitiveness of agricultural sector, and primarily on investments into farms.

Republic of Srpska: In RS rural development policy as well, considerable variations are noticeable in allocations from year to year (in 2010 – 23.2 million KM, in 2015 – 7.8 million KM), and support is limited to Pillar 1 – improvement of competitiveness and Pillar 3 – support to rural areas development, while there is a complete lack of support for environmental protection issues in the analyzed period. Most beneficiaries are supported by improvement of competitiveness measure (by procurement of machinery, livestock, building of premises, plantation raising and greenhouses etc.) while allocations for Pillar 3 were mainly related to development of necessary rural infrastructure. General impression about the introduction and development of rural development policy in Republic of Srpska is that positive steps have been made regarding strategic channeling of funds, systematic and multiple types of support measures as well as considerable increase of the amount of allocated funds.

Brcko District Bosnia and Herzegovina: Brcko District allocates modest funds for rural development measures and these are exclusively related to improvement of competitiveness, i.e. provision of fixed assets for production.

This approach which has been noted in both BiH Entities and Brcko District comes as no surprise given the fact the Pillar 2 and Pillar 3 measures are developed only after the “*production support*” system is finalized. The current structure of rural development support is not uncommon for countries in transition such is BiH. It should be emphasized that most of

new EU MS used most of the rural development support funds through Pillar 1, i.e. to increase competitiveness of agricultural sector.

The group of measures under Pillar Three of agricultural policy – measures of general services in agriculture are not provided directly to agricultural producers as end beneficiaries but are focused on establishing better doing business conditions in agriculture, and include different types of inspection/supervision, research and development, marketing and promotion, etc.

In 2014 total budgetary allocations per ha of utilized agricultural land (UAA) in Federation BiH (BAM 77) and Republic of Srpska (BAM 79) were far behind the allocations provided in Macedonia (BAM 366), Serbia (BAM 180) and Montenegro (BAM 155). Agricultural sector is less supported only in Albania (45 BAM/ha of UAA). Considering that total budgetary support per ha of UAA was BAM 939 in EU-27, it is obvious that BiH budgetary support to the sector is still very low. Equal allocation for direct producer support in 2014 in Federation BiH and Republic of Srpska (60 BAM/ha of UAA) are larger only than those in Albania (6 BAM/ha of UAA) and Montenegro (49 BAM/ha of UAA), and are considerably lower compared to Macedonia (284 BAM/ha of UAA) and Serbia (156 BAM/ha of UAA).

The general rule applicable to all countries in the region is that agricultural budget is not development-oriented. This position is based on the fact of very low allocations for structural and rural development measures. In addition to amounts being rather low both as total figure and as per ha of UAA, negative trends in this type of budgetary support are observable in all Western Balkan counties (with the exception of Montenegro). The 2014 allocations for rural development in Federation BiH (12 BAM/ha of UAA) and Republic of Srpska (9 BAM/ha of UAA) were bigger only compared to Serbia (8 BAM/ha of UAA) and considerably lower relative to Albania (22 BAM/ha), Macedonia (45 BAM/ha) and Montenegro.

The countries with clear aspirations toward the EU integration have to take over the concepts, mechanisms and implementation systems of the CAP at the very beginning. Previous analysis of budget transfers, as important part of agricultural policy in BiH and its Entities in 2006-2015 period clearly shows that both formal and essential implementation of the accession process and adaptation of agricultural policy to the CAP are still at a low and unsatisfactory level. Agricultural policy in both BiH Entities is significantly different, in both the range and structure of measures, so the policy applied is far from the EU model. In order to come closer to CAP and take over its concept, it will be necessary to establish a system of policy coordination among Federation BiH, Republic of Srpska and Brcko District.

2.13.3. Institutional environment

Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina is in charge of agricultural sector tasks and activities which fall under the competence of BiH and relate to defining policies, main principles, coordination of activities and alignment of plans of Entity level authorities and institutions at international level. These activities are implemented as part of the Department for Agriculture, Food, Forestry and Rural Development. Administrative organizations with the BiH MoFTER are: Veterinary Office of BiH, BiH Plant Health Protection Administration and Office for Harmonization and Coordination of Payment Systems in Agriculture, Food and Rural Development in BiH. In addition to this, there is a BiH Food Safety Agency at the state level which is an independent administrative organization and administratively directly subordinated to the Council of Ministers.

Ministry of agriculture, forestry and water management Republic of Srpska is an independent administrative body performing administrative and other tasks in a number of administrative areas and is directly subordinated to the RS Government. The main

organizational units of the Ministry are sectors: Sector for Agriculture, Food Industry and Rural Development; Sector for Extension Services in Agriculture; Sector for Veterinary; Sector for Forestry and Hunting; and Sector for Water Management. Internal organizational units are departments (9 of them). RS administrative organizations within the Ministry are: Agency for Payments in Agriculture; RS Meteorological and Hydrological Institute; and Unit for Coordination of Projects in Agriculture. Public enterprises under the supervision of the Ministry are PE 'Šume Republike Srpske' (RS Forests) and PE "Protivgradna preventiva RS" (RS Hail Prevention) while public institutions under the Ministry supervision include: PI 'Dr Vaso Butozan' Veterinary Institute Banja Luka, PI 'Vode Srpske' (Water Management) Bijeljina and PI 'Ergela Vučijak' Prnjavor (horse farm).

In FBiH the institutions competent for agriculture are Federal Ministry of agriculture, water management and forestry as well as Cantonal line ministries of agriculture, water management and forestry (in 7 cantons); or departments for agriculture within ministries of economy (in 3 Cantons). Main organizational units in the Ministry contain the following portfolios: Minister's office, Sector for agriculture and food industry, Sector for rural development and agricultural extension services, Sector for agricultural payments, Sector for veterinary affairs, Sector for waters, Sector for forestry and hunting, Sector for project management, Sector for finances and accounting, Sector for legal, human resources and general affairs, Sector for information systems and Unit for internal audit. Within the Ministry, there is also Federal forestry administration. Internal organizational units are departments, of which there are 22. Sector for Agriculture and Food Industry is composed of 4 departments. The Sector for Rural Development and Extension Services in Agriculture is divided into two departments while the Sector for Payments in Agriculture is consisted of three departments. Two independent FBiH level scientific and expert institutions have been established and operate in FBiH (FBiH Institute for Agriculture in Sarajevo and FBiH Agro-Mediterranean Institute in Mostar) as well as one institution specialized for agricultural land issues (FBiH Institute for Agropedology).

In **Brcko District, the Department for agriculture, forestry and water management of Brcko District Bosnia and Herzegovina** has been established. The Department is responsible for agriculture and rural development. Within the Department, there are the following sub-divisions: sub-division for agriculture (including Agricultural Expert Service); sub-division for forestry and water management; Sub-division for veterinary; and sub-division for Analysis, Administrative Support and Rural Development. Inspection function in BD BiH is conducted by the BD BiH Inspectorate which operates within the Mayor's Office, which also covers agriculture, veterinary and phytosanitary inspections.

2.13.4. *BiH in international and regional trade and economic integrations*

BiH has been negotiating accession to the **World Trade Organization** for 18 years now, and it has been prolonged for years. BiH and its lower administrative levels will have to observe the rules and obligations BiH negotiates with the WTO and respect the provisions of special WTO agreements namely: Agriculture Agreement; Agreement on Sanitary and Phytosanitary Measures; and Agreement on Trade-related Aspects of Intellectual Property Rights (important for protection of geographic origin of agricultural products). This will inevitably require adaptation of the subsidy policies in agriculture.

As regards the **European Union**, BiH has a status of potential candidate. BiH submitted its EU membership application on February 15, 2016, and subsequently, on December 9, 2016, received a detailed Questionnaire from the European Commission. Currently, the country is preparing and providing answers to the questionnaire EU After receiving the answers from BiH, the European Commission will assess them further and the possible recommendation of

the European Commission to the Council of the European Union will depend on whether the status of the candidate country for the EU membership can be granted to BiH.

BiH has been CEFTA member since 2007. In addition to BiH other CEFTA members include: Serbia, Montenegro, Macedonia, Albania and Moldova. Around 15% of both BiH import and export in 2016 was between BiH and CEFTA members. Views regarding benefits of BiH membership in CEFTA are quite controversial. BiH has bigger import from than export to CEFTA countries. In 2016 BiH import to export ratio was 67.7%. However, the situation is not favorable in other aseconomic groupations either, hence it could be said that foreign trade between BiH and CEFTA follows the trends of overall BiH foreign trade. If the focus is narrowed down to only agricultural and food products, BiH recorded a deficit which has been declining over time. In 2007 this deficit was BAM 907 million while in 2015 it was at BAM 582 million.

In 2013 BiH signed the Free Trade Agreement with (EFTA). BiH foreign trade with the four EFTA members is balanced, and even with a slight surplus on the side of BiH while the share of agricultural products in this trade is relatively small.

2.13.5. Educational and scientific-research institutions in agriculture sector

Based on the data on total average yields, technological failures during production, insufficiently used available resources and other issue faced by agricultural producers in BiH, it is obvious that, in addition to other limiting factors, they lack knowledge. Knowledge can be acquired through regular and additional education and ad hoc trainings. In BiH, agricultural sector labor force is educated in secondary agricultural schools and universities, i.e. agricultural, and agricultural and food science, and veterinary faculties (3 in RS and 6 in FBiH). In addition to this, part of labor force is additionally trained through life-long learning programs.

2.13.6. Extension services in agriculture

The current structure of *agricultural advisory services* within BiH was established by two projects financed by EU (PFAP and ESP) at the end of the '90s. After the completion of these projects, agricultural extension services continued to function as public extension services the funding of which was covered by Entity or Cantonal level ministries of agriculture since it was not realistic to expect, among other things, these services to survive on commercial basis.

Republic of Srpska: The agricultural extension services in RS had been organized as the independent agency for 10 years and after reorganization of the RS Ministry of Agriculture, Forestry and Water Management the agency became part of the Ministry in 2013 as the Sector for Provision of Extension Services in Agriculture. This Sector has 78 employees and 7 regional centers (Banja Luka, Prijedor, Gradiška, Dobož, Bijeljina, Sokolac and Trebinje) in addition to the central office in Banja Luka.

Federation of Bosnia and Herzegovina: If we consider that contemporary transfer of knowledge in agriculture includes a number of systematically linked processes resting on education, agricultural research, application of information technologies, continuous training of advisors, etc. it can be said that FBiH has fragments of this system in place. FBiH still has no capacities that would enable implementation of even the outdated approach to transfer of knowledge in agriculture which is extension services and operation according to the model of occasional trainings and visits to farmers.

Part of extension services to agricultural producers is still provided on project basis, with limited timeframe and geographical coverage, and within projects funded by international financial and development organizations/institutions (USDA, SIDA, IFAD, World Bank, etc.).

2.14. Financing of agriculture

Farms and business entities fund their investment and current needs from various sources: own sources, loans from commercial banks and MCO/MCC, donations, subsidies and other sources (leasing, joint investments, etc.). Small-scale agricultural producers, i.e. agricultural holdings, traditionally do not use external funding sources much while business entities (joint stock, limited liability, farmers' cooperatives, etc.) are mostly oriented toward loans. Use of some more developed forms of funding such as leasing, factoring, forfaiting, warehouse receipt financing, etc. are almost non-existent in practice.

Banks are mostly oriented towards business entities (they even do not separately classify loans awarded to natural persons for agricultural activities) and MCO mostly focus on natural persons among which there is a substantial number of farms. According to the data of Entity level Banking Agencies, legal persons owed between BAM 200 and BAM 250 million (around 2% of principal amount of the total approved loans to legal persons) to commercial banks in BiH. The number and amounts of microcredits awarded to legal persons by MCO/MCC is negligible. However, they are the main creditors of farms whose debt to MCO is around BAM 200 million, accounting for 35-50% of their credit portfolio. MCO approve loans to farmers fast and through a simplified procedure but the cost of this are high interest rates. Though effective interest rates of microcredits show a downward trend, their average level at the end of 2015 was 20% (for short-term loans) and 22% (for long-term loans).

Sound economic logics dictate that it is justified to go into debt only if the profit rate is higher than the interest rate, which can be met only by a few investors in agricultural sector, and on which the banks insist more rigorously when evaluating loan applications. This is the reason microcredit organizations are the only other option for farmers. The absurd situation is that low-profit agriculture is mostly funded by expensive microcredits.

This issue is partially solved by establishing earmarked loan facilities for agriculture through RS Investment and Development Bank and FBiH Investment Bank, with extended repayment plan and lower (mostly limited) interest rates.

In RS, in the 2008-2016 period over 2,000 loans for agriculture, whose principal amount was BAM 119 million, were approved through Investment development bank RS. These loans are placed via intermediaries, commercial banks and MCO/MCC with limited interest margin.

FBiH Development Bank in BiH Federation also provides loans to agriculture directly or via intermediaries. Currently, the Bank offers loans to fund agricultural production with the repayment schedule ranging from 18 months to 10 years, grace period in accordance with the line of business and effective interest rate of 3.1% annually.

Certain loan facilities for agriculture are provided by some projects, primarily those funded by IFAD, which try to secure favorable loans to specific target groups and less developed areas.

Unable to secure (favorable) loans, farmers turn to subsidies and donations as alternative funding sources or give up on investments.

Agricultural insurance in BiH is also undeveloped. A small number of farms have insurance policies for crops, fruits and animals, despite the fact that both agriculture ministries subsidize part of costs of agricultural insurance.

2.15. Social and economic assessment of the state of play in rural areas

What the population live on and how they live in BiH rural areas is important for rural development. Additional surveys on the state of rural areas have not been done for the needs of development of this strategic document; hence the observations provided rest on other available sources. Some of these sources include occasional household surveys and results of surveying 724 agricultural households in RS at the beginning of 2014.

2.15.1. Income sources

Rural households were surveyed in BiH in 2012 (UNDP, 2012) and divided into six typical groups which resulted in unexpected data that only 6% of rural households in BiH generate their income mainly from agriculture and as much as 52.1% from some other type of employment and 35.9% for various types of support (the remaining 2.5% from occasional services; 1.3% from property income; 1.3% from mixed source; and 1% from self-employment). 35% of surveyed rural households has not been engaged in agriculture at all, 16% only had gardens (<0.1 ha or LSU), 37% a small holding (0.1-3 ha or LSU) and only 13% could be considered commercial agricultural holdings (>3 ha or 3 LSU). Though this situation is not necessarily a true reflection of the state of play (since it is based on a survey sampling) it indicates the complexity of situation in rural areas in BiH where agriculture is not the main line of business and primary source of income for substantial number of population. Rural population turning to other sources of income voluntary or forcedly is a consequence of deagrarization of rural areas reflected in the decline of arable areas and reduction of livestock units, the main causes of which are inability to sell products and dissatisfaction with (low) buyout prices.

2.15.2. Rural infrastructure

The other aspect of life in rural areas includes availability of relevant infrastructure. In the absence of other sources the data presented below is that from the 2012 Household Survey (according to: UNDP, 2012). 83% of rural households had indoor water taps, 32% had sewerage (and 62% had septic tanks), and 99% used wood or coal for heating, 63% had a mobile phone, 50% a PC, and 44% internet connection. The closest in distance to rural households in BiH are shops, primary school and local clinic, and the furthest are post office, bank and hospital. The primary meeting places for rural population are cafes and religious facilities, while they spend their free time usually by watching TV.

2.15.3. Demographic situation

Republic of Srpska has seen negative demographic trends over the past 10 years while FBiH has experienced them since 2013. The available data (number of births, deaths, population growth, migration balance, etc.) are not processed separately for urban and rural areas for which neither BiH nor its Entities have adopted classification methodology.

According to the results of a household survey conducted (only) in RS, the average number of members of agricultural households is 4.21 out of which 2.21 are male and 2.00 female members, of average age of 41.75 years. In 90.47% of cases the farm holders are male members of the household, while women account for only 9.53% of farm holders and mostly of elderly, single member farms. At the first glance the educational structure of agricultural holdings does not seem unfavorable since 36.64% of members completed secondary school, 31.79% of members completed primary school, and only 3.83% of members of agricultural holding have completed university education. However, only 2.49% of them have formal education in

agricultural production (1.80% completed secondary agricultural school and 0.69% graduated from the faculty of agriculture) while as much as 92.82% of them acquired their experience only through practice (Vaško et al., 2015).

2.16. Agro-environmental conditions

Generally, it can be noted that there is a number of agro-environmental issues in BiH. On one hand, they relate to undermining rural population health and ecosystem in general, while, on the other hand, they are related to destroying natural resources and to poorer quality of agricultural plant and livestock products. The issues are mainly related to inadequate and uncontrolled use of pesticides, inadequate management of soil fertility and use of fertilizers. Furthermore, environmental management is inadequate in livestock production at medium and large cattle farms and there is still a low level of environmental awareness among the agricultural producers.

2.16.1. Degradation of land and water management

The main issues related to degradation and disturbance of land and loss of productive agricultural land, recognized in the First National Report on the Implementation of the United Nations Convention to Combat Desertification/Land Degradation for BiH include: destruction of soil caused by exploitation of raw materials, landfills; construction of residential, industrial and other facilities; increase in soil acidity; erosion, landslides and deforestation; land degradation caused by war activities and contamination by mines. Additional issues include low level of awareness on the significance of soil and land for sustainable development and survival of humankind, low level of land use planning, etc.

Non-adoption, lack of knowledge about and non-observance of Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources, which precisely defines the quantity of nitrate per m² of agricultural land at annual level are just one of the problems BiH agriculture faces on a daily basis in this area.

According to legislation, protection of land from various types of degradation in BiH and FBiH is not regulated by a single regulation but is tackled through a number of sectoral regulations which regulate spatial planning, environmental and water protection, agricultural land, forests and forest lands, etc.

In Republic of Srpska, the issue of protection of land from degradation is regulated by the Law on Agricultural Land (“Official Gazette of Republic of Srpska“ No. 93/06, 86/07, 14/10 and 05/12), Law on Mining (“Official Gazette of Republic of Srpska“ No. 59/12) and the Law on Forests (“Official Gazette of Republic of Srpska“ No. 75/08) as well as by a number of other regulations.

2.16.2. Waste management

Management of various types of waste, including agricultural waste, is a specific problem regarding pollution and combating pollution of environment. Animal waste generated as a byproduct of food industry, primarily waste from slaughter facilities, and waste generated as a product of facilities for processing and production of agricultural products has not been adequately resolved in BiH yet.

In Republic of Srpska, the Law on By-products of Animal Origin (“Official Gazette of Republic of Srpska“ No. 60/13), is in force which in detail regulates the said topic on the territory of Republic of Srpska.

2.16.3. *Agro-environmental policy*

There are no agro-environmental measures in BiH.

Analysis of environmental legislation suggests a lack of a number of legislative acts whereas passed legislation faces the issue of its incomplete alignment with the EU standards and regulations, and lack of alignment between the laws passed at different governmental levels. In addition to legislative there are also institutional problems in the environment sector.

Federation of Bosnia and Herzegovina: FBiH Law on Environmental Protection (“Official Gazette Federation BiH”, No 33/03) is the main legislative act defining and setting goals, principles, measures, responsibilities, documents, financing and supervision of environmental protection in BiH Federation. The administration in charge of environmental issues in FBiH has extremely fragmented institutional infrastructure (three levels – Federation, cantons, municipalities). In this situation, a lack of strong horizontal and vertical coordination led to largely ineffective, irrational and uneconomic environmental management in FBiH. In addition to line ministries dealing with environment, there are also expert institutions at FBiH level which address environmental issues.

Republic of Srpska: Similar institutional structure in charge of monitoring, supervising and implementing policies and measures in the area of agro-environmental policy is in place in this Entity as well. The two key ministries are Ministry of Spatial Planning, Civil Engineering and Environment and Ministry of Agriculture, Forestry and Water Management, with important role of the RS Fund for Environmental Protection and Energy Efficiency. The key piece of legislation is the Law on Environmental Protection of Republic of Srpska (“Official Gazette Republic of Srpska”, No 53/02,109/05, 71/12 and 79/15) with a number of secondary legislation acts elaborating its implementation in specific areas.

2.16.4. *Biodiversity and animal and plant genetic resources*

BiH had around 25,000 ha of protected zones (as at 2010), accounting for around 0.5% of its territory, and around 1% of forest areas, in respect of which BiH is ranked the lowest among the European countries.

Federation of Bosnia and Herzegovina: Environmental heterogeneity of FBiH area caused high level of endemic life forms. It is composed of over 450 species and sub-species of vascular plants, several hundred species of invertebrate, 12 species of fish, 2 species of amphibians, 4 species of reptiles, and several species of birds and mammals. Abundance of flora, fauna and fungi in FBiH is reflected not only in the high number of represented forms but also in high level of diversification, testifying about very specific processes of genesis of life forms in this region. The analysis of spatial ecosystem biodiversity in the period between 2000 and 2006 and according to CLC classes in BiH (forest vegetation and other natural areas; wetlands; swamps; water bodies) shows that there are no major changes of areas (and thus no significant functional changes) within natural ecosystems in BiH in the observed period.

Republic of Srpska: The RS Nature Protection Strategy of 2011 notes that the level of prominence of biodiversity in RS is scarce, observing that the situation is moving forward regarding ichthyology and ornithology. Based on partial and sporadic data it has been noted that flora, micro flora and fauna in RS are still extremely abundant, in particular compared to other European countries. RS Institute for Genetic Resources was established in RS in 2009; it is a coordination institution for implementation of the RS Program for Preservation of Plant Genetic Resources which the RS adopted in 2008 and thus established a legal framework for preservation of biodiversity. In addition to this Program, in 2013 RS adopted the Program for Preservation of Forest Genetic Resources. To date, the Institute implemented evaluation and

genetic categorization of a number of types and varieties of fruits, vine, arable and vegetable crops. Thus far the least work has been done regarding protection of animal genetic resources.

The need arises to integrate agro-environmental issues in the process of rural development planning. They should prevent disturbance of landscape and biodiversity, disappearance of animal and plant genetic resources (autochthonous varieties and breeds), loss of agricultural areas, and degradation of environment caused by the use of inadequate and traditional agricultural practices including inadequate disposal of manure and pig sludge, and high level of use of pesticides and mineral fertilizers in particular regarding intensive crops and growing crops on plow land. The future measures which will be related to resolving agro-environmental issues in Federation BiH, Republic of Srpska and Brcko District BiH should be aligned with those used within the EU CAP, i.e. observing a number of EU standards and rules regulating this issue, and at the level of needed/possible budgetary and institutional capacities.

2.16.5. Products with protected geographical origin, indigenous and traditional products

Today, customer's demands and expectations regarding specific quality of products, its properties, and characteristics of products with a mark of certain quality are increasing, while specific importance is attributed to branding of agricultural and food products. Promotion of products with specific features could significantly contribute to rural economy, especially in areas with fewer opportunities or in remote areas, improvement of income of farmers and retaining rural population in these areas. Protected products are recognizable on the market and attain higher prices compared to 'ordinary' agricultural and food products. The direct link between agricultural product and a relevant area brings added value to this area as it makes it recognizable and attractive for tourists.

The EU has three types of protected agricultural and food products - Protected Denomination of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Specialty Guaranteed (TSG).

Due to its specific geographical position, nature and climate conditions and also rich culture and tradition, BiH has a certain number of agricultural and food products with the potential for their protection which is not sufficiently utilized.

The reasons for this could be found in the process of launching protection procedure and in a lack of knowledge about the benefits of such marks. The protection process requires time, funding and an expert who would be leading the overall protection process and cooperating with competent institutions. It is also important that producers recognize the benefits they may have from protection.

The lack of harmonization of competences between BiH Food Safety Agency and BiH Intellectual Property Institute is evident. The Agency is using one legal framework (which, derives its competencies from the Law on Food ("Official Gazette BiH", No. 50/04)) while the Institute uses another (its competences arise from the Industrial Ownership Law ("Official Gazette BiH, No. 03/02) and Law on Protection of Geographical Indication ("Official Gazette BiH, No. 53/10). Amendments to the current regulations in order to avoid overlapping of competences are being worked on.

2.17. Gender equality

BiH is a signatory to all the important international conventions on gender equality and eliminating all forms of discrimination over women of which the most important is the

Convention on the Elimination of all Forms of Discrimination against Women (CEDAW). A specific article of this Convention is related to improvement of the position of rural women and it obligated BiH, as Convention signatory, to work to improve socio-economic situation of rural women, their access to resources, market and information and access to the basic infrastructure and public services. The most important local legal act which regulated gender equality as an individual human right is the Law on Gender Equality in BiH (BiH Official Gazette, No 32/10) which promotes gender equality and forbids discrimination on the basis of sex and sexual orientation, and obligates all authorities at all levels to draft, adopt and implement programs of measures to implement the law in all areas.

The issues of gender equality are intertwined with the issues in agricultural and rural development sector. Rural women are more involved in performing agricultural tasks which are poorly paid or not paid at all while male labor works outside the holding and regularly generates monetary remuneration and other benefits (health and pension insurance). Also, women traditionally do housework which consumes substantial time during the day.

Republic of Srpska: Operationalizing one of the measures foreseen in the RS Strategic Plan for Rural Development 2009-2015, RS Gender Center, in cooperation with the RS Ministry of Agriculture, Forestry and Water Management, prepared the Action Plan for Improvement of the Status of Rural Women which RS Assembly adopted in 2010 and which was updated in a way to adopt the new Guidelines for New Medium-term Cycle 2017-2022. In the case of the Ministry of Agriculture, Forestry and Water Management, it is suggested that it continues to apply and finance support measures to business activities of rural women and improve gender equality when providing extension services and training programs in rural areas.

Federation of Bosnia and Herzegovina: Federation BiH has no specific gender action plan and is directing its activities in accordance with the BiH Gender Action Plan 2013-2017.

2.18. Donor support

Due to the war events in BiH in 1992-1995 period and substantial material destruction, the postwar period saw intensive presence of various donors. They had numerous interventions and large part of these were implemented in rural areas (demining, reconstruction of rural infrastructure and residential units) while donations were partially focused on rehabilitation of agriculture in BiH (providing cattle, agricultural machinery, greenhouses, seedlings, seeds, feed, etc.).

BiH Ministry of Foreign Trade and Economic Relations implements certain activities to develop a database of current donor assistance. These activities are implemented at the level of an working group whose members include representatives of relevant institutions at state and entity level. Progress has been made in recent years in improving donor project coordination, in that MoFTER now develops and publishes annual reports on international (donor and loan) assistance to agriculture, food and rural development, which contain the main data on specific donors/creditors and a list of projects, including their size/value. However, some parts of donor assistance still remain unrecorded within this framework where this assistance is more cross cutting, such as support provided for local economic development (which is frequently active in rural areas of the country).

EU has historically been the largest donor in support of the postwar reconstruction and development of numerous sectors in BiH, including the agriculture and rural sector as well as food safety, veterinary and phytosanitary sectors. In addition, significant EU donations have been focused upon improving living conditions in rural areas and on environmental protection. EU donations have been implemented in the sector within different programs (CARDS,

PHARE, OBNOVA, etc.) while since 2007 it is being implemented through the (IPA) and the (EIDHR). In the framework of IPA I Program (2007-2013), EU invested cca EUR 26 million in the agriculture and rural development, food safety, veterinary and phytosanitary sectors.

. Also, the EU provides technical assistance to BiH focused on specific issues through TAIEX, Twinning and BTSF programs.

However, despite the implementation of a number of projects and engagement of a number of technical experts to assist with sector specific areas and issues, the overall impact of these projects in BiH have been only partial . The lack of political will to support reform within the sector, led to the temporary suspension of EU support to the sector in 2013. As a pre-condition for re-engagement of EU in support of the agriculture sector, BiH and entity institutions are required to prepare, agree and adopt a country-wide Strategic Plan for Rural Development which would also include a Multi-Annual Action Plan and Budget Framework. This draft document represents the institutions official response to this requirement.

During the last decade or more, USAID and Sweden have also been very pro-actively providing support to the BiH agriculture sector, with significant resources and technical assistance being provided to support the private sector to improve competitiveness, helping to improve productivity, raise quality standards and build stronger linkages in targeted value-chains. And in the current period, through its third generation of assistance to the sector, USAID and the Swedish Government are currently funding the largest assistance project in support of the agriculture sector, namely the 'Fostering Agricultural Market Activity II' project (FARMA II).

Certain assistance, mostly technical or at expert level, has also been implemented by UNDP, FAO, GIZ, SWG RRR and other international and regional organizations, primarily funded with EU resources. In addition various bi-lateral donors have also provided targeted funds and technical assistance including governments and government agencies from Japan, Spain, Italy, Germany, Switzerland, Czech Republic, China, Kuwait, Saudi Arabia, Turkey and Slovenia. There were also a number of programs and projects focused on rehabilitation of agriculture and rural areas using loan finance from international financial institutions (i.e. World Bank, IFAD, OFID, etc.).

Overall, donor assistance in support of the agriculture and rural sector of BiH has tended to be somewhat fragmented and poorly coordinated over the last decade or more. It is therefore intended that the official adoption of a BiH Strategic Plan for Rural Development for Bosnia and Herzegovina (2018-2021) will provide a more robust policy framework to guide future planning and coordination of donor assistance for the next implementation period.

3. Summary SWOT analysis

The identified stimulating and limiting factors and conditions for the development of agriculture and rural areas in BiH are summarized in the following tables developed, based on the SWOT analysis methodology:

Table 6: SWOT analysis

Natural resources	
S - Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Favorable geostrategic position of BiH; › Different agro-climate zones, facilitating diverse agricultural production; › Available water resources for irrigation; › Presence of forest and uncultivated agricultural areas abundant in forest, wild, medicinal and aromatic herbs (possibility of generating additional income); › Relatively well-preserved nature and unpolluted environment; › Favorable environmental conditions for development of rural tourism. 	<ul style="list-style-type: none"> › Insufficient utilization of natural resources (agriculture, tourism, entrepreneurship aspects); › Inefficiency of the system of management of land, forest and water resources; › Frequent damages on crops and plantations as a consequence of natural disasters (droughts, floods, hail, frost); › Disorganized land registries and cadasters; › Insufficiently developed awareness on the need for environmental protection and biodiversity conservation; › Pronounced issues of waste disposal; › Mine fields; › There is no demarcation of less favorable areas for agricultural production (ANC); › No LPIS.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Commitment of FBiH MAWMF and RS MAWMF to invest in irrigation systems (use of WB credit lines and those of other international organizations); › Investing in renewable energy sources and clean technologies; › Existence of large number of governmental and non-governmental organizations addressing the issues of natural resources; › Climate changes recognized as important challenge for defining strategic commitments, mechanisms of action and concrete measures. 	<ul style="list-style-type: none"> › Global climate changes; › Inadequate and insufficient regulations dealing with environmental and natural resource issues; › Endangering biodiversity due to insufficient and inadequate protection. ›
Agricultural production	
S - Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Substantial areas of uncultivated land; › Substantial grassland areas suitable for expansion of livestock production; › Existence of tradition in agriculture; › Sound knowledge of agricultural production technology; › Improved assortment in plant production and breed composition in animal production; › Increase in the number and market share of large commercial producers; › Pronounced trend of increase in the number of registered farms; › Enhancement of competitiveness in some sectors of agriculture (wine, berries, fish, vegetables); 	<ul style="list-style-type: none"> › Pronounced fragmentation of land property; › Low share of irrigated area in the total arable areas; › Low level of specialization and marketability of production; › Low yields lagging behind surrounding countries and EU averages; › Low added value of most agricultural products; › Poor technical and technological equipment level of a large number of farms; › Yield instability and high price oscillations; › Low productivity in all sectors of agricultural production; › Insufficient production of local seed and planting material;

<ul style="list-style-type: none"> › Growing awareness about the existence of standards in production and the need to introduce them in practice; › Preserved autochthonous breeds of domestic animals and varieties of fruits and grapes. 	<ul style="list-style-type: none"> › Planting material is of uneven quality (pronounced presence of uncertified material); › Inadequate assortment/low share of modern varieties; › Low level of organization and needed post-harvest/picking infrastructure; › Inadequate on-farm storage; › High seasonal surpluses; › Low level of farmers' knowledge about technologies, marketing and management; › Poor and inadequate organization of farmers (lack of functionality and inefficiency of cooperatives and associations of farmers); › Poor image of agriculture as a line of business.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Development and promotion of more niche market, higher value agriculture products;; › Transfer of knowledge and technologies in agricultural production; › Technical and technological modernization of agricultural production; › Intensification of agricultural production; › Diversification of activities of agricultural holdings; › Market demand for organic products; › Opportunities for branding and protection of indigenous, typical and regional products. › 	<ul style="list-style-type: none"> › High dependence of agricultural producers on direct budgetary support; › Undeveloped land market; › Outstanding issue of land restitution; › Regional presence of communicable diseases and pests; › Negative trends in livestock numbers and size of sown plow land; › Further property fragmentation; › Natural disasters; › Plant diseases and pests. ›
Food industry	
S - Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Existence of capacities to receive and process raw materials of agricultural origin; › Existence of successful, export-oriented companies; › Increased awareness about the importance of introducing standards in production. 	<ul style="list-style-type: none"> › Certain segments of food industry are technologically outdated, inefficient and noncompetitive; › Low level of utilization of capacities in food industry; › Large dependence on imports of inputs (in particular of meat and milling and bakery industry); › Poor vertical and horizontal integration; › Traditional assortment of products and insufficient customer needs surveys.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Strengthening support for food industry to source inputs from domestic producers; › Improved production quality, standards and reliability of supply to the food industry › Strengthened value chain integration and linkages. › 	<ul style="list-style-type: none"> › Lack of consumer trust and confidence in BiH produced agri-food products › On-going reliance on imported agriculture products due to lower prices and reliability; › Lack of foreign direct investments and inability to secure sources of financing for new investments; › Non-compliance with market standards and inability to export.
Socio-demographic factors	
S -Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Price competitive labor force; › Diversity and attractiveness of rural environment; 	<ul style="list-style-type: none"> › Lack of labor force (for harvesting and other seasonal works) in some regions;

<ul style="list-style-type: none"> › Growing motivation for cooperation and coordination; › Self-employment opportunities in agriculture; › Relatively high percentage of rural population; › Existence of democratic decision making process on local level; › Existence of a number of public, private and civil sector partnership on local level; › Rich rural heritage. › 	<ul style="list-style-type: none"> › Unfavorable age, education and social structure of rural population; › Migrations of working and educated population from rural areas; › Low level of quality of life (physical and public infrastructure) in certain rural areas; › Weak capacities of civil society organizations and low levels of local population participation in public decision making; › Poorly developed physical, social and service infrastructure in rural areas.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Substantial interest for rural tourism and its other forms; › Possibility of diverse year-round tourism offer of rural areas; › Establishment of Local Action Groups and utilization of LEADER funds; › Creating new jobs through building of entrepreneurial capacities (human and material) in rural areas; › Development of local strategies and rural development projects; › Networking of local communities/regions and exchange of good practices with EU regions/local communities. 	<ul style="list-style-type: none"> › Increasing rural-urban migration, aging rural households and loss of young, educated population; › Uneven regional development; › Education systems not adjusted to the needs of modern economy (rural development); › Poor image and lack of understanding of the term 'rural'; › Unfavorable status of agricultural producers (no formal employment, mostly with no health or pension insurance).
Market and competitiveness	
S -Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Improved value-chain integration in some targeted sub-sectors; › Various targeted niche agro-food products competitive on both domestic and international markets; › Some examples of highly labor intensive, high value agricultural product development and trade. › Implementation of mechanisms for support and protection of domestic production; › Preserve the importance of green markets supplying fresh fruit and vegetables; › Well supplied input market; › Availability of raw materials from domestic production; › A system of purchase and quality control in the dairy sector developed; › Scientific research in the interest of agriculture and transferring (transforming) its results into practical application. 	<ul style="list-style-type: none"> › Insufficiently developed agricultural and food value chain; › Insufficient information from the market/undeveloped market information system; › Low awareness of the need for horizontal and vertical linking of producers; › Large dependence on imports of inputs and raw materials; › Generally low level of price competitiveness of local agricultural production; › Unfavorable foreign trade balance of large number of agricultural and food products (deficit); › Unsatisfactory level of application of hygienic , environmental and quality standards and lack of resources for support of the control system; › Lack of storage capacities; › Inadequate border control when importing food › Low level of adaptation to market requirements; › Weak infrastructure in most rural areas; › Low purchasing power of the population; › Weak marketing of products.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Increase in demand for food at global level; › Increase in quality standards and sales of locally produced food (import substitution); › Larger market-orientation of agricultural producers; 	<ul style="list-style-type: none"> › Global economic crisis; › Accelerated process of transposition of EU regulations in the area of food production and trade; › Trade orientation towards importing food;

<ul style="list-style-type: none"> › Establishment of efficient system of buyout and distribution of agricultural products, › Development of contract farming arrangements; › Access to regional markets through CEFTA and other trade and preferential trade agreements; › Better supply of raw materials; › Trend of increased demand for traditional, autochthonous products and products with geographical indication; › Strengthening complementary branches of industry (tourism and catering); › Better and more accessible advisory services › Development of entrepreneurship in rural areas. 	<ul style="list-style-type: none"> › Loyalty of local consumers towards products of local origin at low level; › Instability of input prices, raw materials most expensive in the region; › Low level of protection of local production; › Insufficient protection of cultural, historical and natural heritage; › Presence of gray economy.
Political, legal and institutional environment	
S - Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Existence of strategic documents for development of agriculture and rural areas in both Entities (though largely unimplemented); › Existence of scientific and educational institutions for knowledge transfer; › Existence of internationally recognized certification body for certification of organic production; › Increasing number of regulations in the context of approximation to the EU Acquis (but only limited harmonization between governance levels); 	<ul style="list-style-type: none"> › Slow harmonization of sector with the EU and other international framework policies; › Lack of the system for analysis/monitoring and/or evaluation of efficiency of previous, current or planned policies on sectoral impact; › Inadequate agricultural statistics (including census data) and/or reliable sector information systems to guide effective policy making; › In relation to the actual needs, insufficiently developed advisory and professional assistance system; › Institutional, policy and legislative framework not harmonized with EU practice and standards.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Strategic documents, detailed action plans and dedicated budgets for agriculture and rural development in BiH Entities and commitment to gradual EU alignment in support of competitiveness objectives; › Restructuring and capacity building of all sector governance structures, guided by EU and international best practices › Establishment of effective policy design, programming, management, coordination, analysis, monitoring and evaluation capacities and systems › Attraction of additional EU funds for pre-accession adjustment and strengthening of agricultural sector structures and systems; › Strengthening actors at local level in all areas of economy and society; › Strengthening public-private partnerships in the implementation of investment programs and in the governance process 	<ul style="list-style-type: none"> › Political instability and weak business environment; › Lack of political commitment to support major investments in rural development; › Dependence of agricultural policy on overall socio-political relations, inside and outside of BiH; › Poor image of BiH due to the last war, political instability and economic underdevelopment; › Undeveloped and unreliable information system in agriculture and insufficient logistics support (forecast services, registers, cadaster, etc.); › Liberal foreign trade regime; › Standstill in EU integration processes; › Lack of funds for implementation of political and economic reforms. ›
Financing agriculture	
S - Strengths	W - Weaknesses
<ul style="list-style-type: none"> › Certain options for financial loans in the agri-food sector › Various micro-credit finance options available to support small scale farmers; 	<ul style="list-style-type: none"> › Lower subsidy levels for agriculture compared to the EU and most countries in the region;

<ul style="list-style-type: none"> › Continuous allocation of budget funds for financing agricultural production; › Legally established and regulated financing in agriculture; › Significant funding sources from international credit funds and international projects and donations. 	<ul style="list-style-type: none"> › Inadequate structure of distribution of incentives, with accent on supporting current production, at the expense of rural development and long-term investments; › Lack of own capital of agricultural producers; › Unfavorable conditions of external financing; › Crediting and other sources of financing incompatible with specificities of agriculture; › Insufficient budgetary support for agriculture; › Inconsistent budgetary support and unequal position of agricultural producers on territorial/entity level › Support measures are insufficiently transparent, application procedures are complicated, and monitoring of expenditure is underdeveloped (inefficient); › Lack of legislation for the establishment of savings and credit organizations (FBiH). › Poor representation of agricultural insurance.
O - Opportunities	T - Threats
<ul style="list-style-type: none"> › Readiness of agricultural producers to use loans; › Agriculture still among the leading BiH industry branches supported by international organizations › Access to pre-accession funds of the European Union for rural development; › Access to European Union funds for institutional building and cross- border cooperation: › Access to European Union funds for development of civil society, funds for scientific research (HORIZON 2020 and other) and some other structural funds. 	<ul style="list-style-type: none"> › Continuous focus on inefficient, socially oriented production incentives (instead of promoting commercial agriculture); › The inconsistency and instability of budget transfers in the implementation of agricultural policy measures; › Decreased interest and presence of donors and foreign investors; › Limitation of local sources for development of rural areas; › Political instability and lack of functionality of government institutions; › Deterioration of the security situation and investment risks; › Slow adjustment of the economic structure in rapid technological progress conditions; › Credit rating downgrade and failure to fulfill obligations towards creditors; › Failure to meet the conditions for exercising the right to access the EU funds; › Forces of nature and natural disasters.

4. Strategic vision

The vision of agriculture and rural areas for the period between 2018 and 2021 indicates certain developments that will take place in agriculture and rural areas in BiH, namely:

Improved competitiveness of agri-food products and quality of life in rural areas for all social groups, especially young people, whilst ensuring adequate environmental protection through more efficient use of available resources, improved product quality and increased level of investments in order to encourage restructuring, modernization, application of innovations and promoting diversification of economy in rural areas.

This vision has been developed based upon the identified analysis of the strengths, weaknesses, opportunities and threats (SWOT) to the development of agriculture and rural areas and the ways in which agricultural and rural policy in BiH can address these main challenges and at the same time gradually align its structures, systems policies and programs with the EU CAP.

5. Strategic goals and measures

The six main strategic goals for development of agriculture & rural areas in BiH for 2018-2021 are:

- I. To ensure income stability and harmonize business conditions with the region;
- II. Strengthening competitiveness of agriculture, forestry and rural areas through increasing the level of investments and improving the transfer of knowledge and promotion of innovation;
- III. Improving marketability of agri-food products by increasing value-added activities, improving quality and safety standards and strengthening linkages within the value chains;
- IV. Sustainable management of natural resources and climate change adaptation;
- V. Improving the quality of life in rural areas through new income generating sources and improvement of physical infrastructure, social inclusion and accessibility of public services;
- VI. Improving institutional systems and capacities and harmonization of the legal framework in agriculture and rural development, at all governmental levels with the aim of gradual approximation to the EU CAP.

These goals provide the broad framework for the development of agriculture and rural areas (strengthening competitiveness, improving marketability, sustainable management of natural resources, improving the quality of life and improving institutional and legislative capacities) and at the same time aim to take account of the current strategic priorities defined by the Entities and Brcko District BiH.

(i) To ensure income stability and equalization of business conditions with the environment

Income in various areas of agricultural production is low and unstable, and the funds intended for financing of the previously mentioned strategic goal will ensure stability and security of agricultural holdings income and attempt to equalize the position of local producers in relation to foreign ones.

The share of agriculture in gross domestic product is quite high, and there are also a large number of inhabitants who are constantly or occasionally engaged in agricultural production, which indicates that agriculture and its development are very important, both from the economic and from the social point of view.

Improvement of agricultural production is primarily achieved through increasing the volume and productivity of agricultural production and ensuring the stability of income for agricultural producers and following that, through strengthening competitiveness through increasing the level of investment, degree of marketability and finalization of agricultural production.

An additional challenge for the improvement of agricultural production is the fragmentation of holdings, therefore, in the coming period, it is necessary to find optimal solutions for consolidation of holdings and organization of production on a large number of production units and unification of their heterogeneous supply of products.

The market economy system is characterized by free competition and the right of agricultural producers to decide for themselves what and when to produce and how they will sell the goods. On the one hand, freedom in market access brings benefits to some agricultural producers and on the other hand, competition is very high and due to obligations arising from international agreements, there are few measures that can be taken by the competent institutions to protect domestic production.

The obvious problem of the domestic agricultural production is low productivity, which can be improved by changing production technology, adapting the structure of production to natural and other comparative advantages, using the adequate assortment and racial composition, and all this can be achieved through improved cooperation between scientific research institutions and advisors and the producers.

On the other hand, the position of domestic producers at the open EU market, which they have access to, is endangered by the high level of financial support that EU producers receive which, together with the factor of low economies of scale in comparison to EU producers, makes them less competitive, which is one of the reasons for retaining high level of direct support.

Products that have little added value dominate the agricultural production; therefore production bringing higher market value should be favored.

(ii) Strengthening competitiveness of agriculture, forestry and rural areas by increasing the level of investments and improving transfer of knowledge and innovation:

Modernization of farms and processors will lead to increases in the productivity and efficiency of agricultural production and value added processing, which in turn will lead to enhanced competitiveness of domestic agri-food products on both local and international markets.

Investments in modernization of facilities, machinery and equipment, increase in numbers and quality of livestock, increase of permanently planted areas (orchards and vineyards) and protected areas (greenhouses), development of aquaculture, increased intensity of use of arable land by installing irrigation and strengthening infrastructure in finishing, processing and distribution are some examples of activities which directly affect long-term improvements in competitiveness of agricultural holdings. This support should be coupled with on-going direct payments/subsidies for producers which will be gradually aligned with direct support measures supported through the CAP of the EU. The aim being to strengthen the links between such incentive payments to producers and improvements in good agricultural and environmental practices.

In order to finance the investments, in addition to agricultural producers' own resources and subsidies, it is necessary to ensure affordable credit funds from commercial banks and other financial institutions which will follow such investments with corresponding loan products. Larger investments in irrigation and drainage which are not carried out by individual holdings should be carried out as public investments or through public-private partnerships.

Other aspects of improving competitiveness will also play an important role by gradually raising the knowledge and skills levels of agricultural producers and other participants in the value chain, by improving their education and subsequent professional training through advisory services, either provided by public or private advisory networks.

Complementing this system, scientific and applied research, that can provide practical and demonstrated results will be supported to become increasingly important for the promotion and application of new technologies and innovations in the sector.

Various certification systems for quality and origin of agricultural and food products will also be supported and contribute to raising standards and overall competitiveness, as products gain higher added value and thereby enable the possibility for their export, which will contribute to enhancing marketability of BiH agriculture and food products.

(iii) Improving marketability by increasing value-added activities, improving quality and safety, introducing standards and creating links within value chains:

Enabling the agriculture and food sector in BiH to make a profit in an open free market economy which the BiH market became after its liberalization is the ultimate production valuation benchmark. By creating stronger product identities, coupled with the implementation of internationally recognized quality and food safety standards, more effective production and linking of value chains consisting of producers, processors and traders will ensure expansion of domestic and international markets for BiH agri-food products.

Support will also be provided to strengthen the organization and inter-linking of agricultural producers with buyers and processors of their products, strengthening recognition of agricultural food products on the domestic and international markets, introducing certified international quality standards, strengthening inspection control infrastructure related to quality and safety of agricultural food products of BiH origin, developing mechanisms for the implementation of animal welfare protection regulations, and improving sector capabilities for entering into global value chains.

(iv) Sustainable management of natural resources and adaption to climate change:

The aim of sustainable management of natural resources is to create the conditions to allow for the responsible management of available natural resources by: promoting and strengthening agricultural practices favorable to the environment; equalizing business conditions in areas with natural limitations and conservation of valuable landscapes; strengthening the system of water management in agriculture; raising awareness of climate change, its consequences and methods to mitigate or protect the sector against such changes; promoting the use of renewable energy sources and the use of agricultural waste; revitalizing and conservation of grazing areas; improving biodiversity and conservation of indigenous genetic resources; improving land fertility; and establishing and strengthening the mechanisms for sustainable land management.

Factors affecting the access to the natural resources in BiH, which should be influenced upon, are also the contamination of agricultural land with mines, especially in areas affected by floods and landslides, unresolved property-legal relations, lack of good practices in land management, such as arondation and consolidation, demographic issues and similar.

(v) Improving the quality of life in rural areas by creating new sources of income, improving physical infrastructure, social inclusion and availability of public services:

Support for income stability of agricultural holdings will be achieved by reducing the differences in the business environment and conditions in different regions within BiH and in

relation to countries in the region, improving age and educational structure of rural population, diversification of agricultural and non-agricultural activities in rural areas, protection and conservation of natural and cultural heritage, improving infrastructure and services of importance to rural population.

In order to exploit unused resource in rural areas, reducing agricultural producers' business risks, ensuring income stability and increasing revenues, promotion of diversification of economic activities in rural areas will be supported, and opportunity will be given to create new jobs on and outside of the agricultural holdings, i.e. in and out of agricultural production.

Investing in education of rural population, culture and social infrastructure, will improve age structure of rural population and contribute to reduction of rural area depopulation.

Within the agricultural and rural policy measures, special attention and additional efforts will be given to improving the status of women and young people in rural areas, by developing targeted programs for their employment and providing certain additional subsidies within the available support measures.

(vi) Improving institutional capacity and harmonizing legal framework in the area of agriculture and rural development at all levels of governance in line with the Constitutional competencies with the aim of approximation to the Common Agricultural Policy of EU;

Effective fulfillment of previous rural development objectives must at the same time follow establishment and improvement of the necessary institutional, and legal frameworks for implementation of strategic objectives and measures i.e. create a favorable environment for the development of the sector as a whole. Therefore, the majority of tasks and activities within this objective represent preconditions for establishing an overall strategic platform.

This, first of all, relates to accelerating and harmonizing activities on transposition of the Acquis, strengthening institutional capacities, gradual and rational development of agricultural policy measures similar to those in the EU CAP, improving cooperation and coordination of all interested parties with the aim to improve the status and standing of agriculture in society.

It is clear that without the complete and correctly established legal framework, harmonized with EU provisions it will not be possible to implement in practice an effective control system which guarantees safe production and consumption of food. Any non-harmonization with EU legal acts is a possible barrier for the progress of BiH in its negotiation on accession to the EU.

The agriculture sector, including veterinary, food safety and phytosanitary areas, is a key sector for achieving sustainable economic and social development in BiH, along with ensuring economic growth, export potential and new job creation.

Veterinary, food safety and phytosanitary areas need to further continue institutional and administrative capacity building. The legal framework in these areas is constantly being improved especially with respect to legislation implementation. Regulations in these areas need to be further harmonized and adopted in order to be fully in line with the Acquis.

Establishing the information basis for programing and monitoring agricultural and rural policy implies, from one side institutional delivery of competencies for this process to either structures within certain public institutions or contracting these services to other institutions or organizations. On the other hand, this also means establishing an adequate information system, the basis of which would be an agricultural census, which implies further development and maintenance of agricultural holdings register AHR, domestic animals register, development and maintenance of FADN), development and maintenance of agricultural market information system PTIS, establishing an LPIS etc.in accordance with constitutional competencies.

One of the challenges is also organization and improvement of payment systems in BiH necessary for implementation of EU pre-accession funds and alignment with the EU CAP.

In order to achieve this broad set of objectives, it is necessary to strengthen institutional capacities within the inspection framework tasked with agriculture, veterinary, phytosanitary and food safety areas, as well as to improve capacities for implementation of official control and official control audits.

It is also necessary to strengthen capacity of phytosanitary laboratories for accreditation of methods for determination and identification of harmful organisms, for certification of seeds and planting material, for testing the quality of plant protection products and for testing the quality of mineral fertilizers.

Availability of the register of food business operators is of crucial importance in order to guarantee effectiveness of food safety area controls.

The development of an effective animal identification and movement control system represents a key tool for preparation and implementation of all livestock policies and control of animal health and disease prevention. Gaps in this system and the problems which may arise from them have been noted in various recommendations of FVO inspection missions in BiH.

With respect to land policy, in addition to legal solutions which will improve the land resources management system, it is also necessary to make improvements in the area of land resources surveillance and management of fertility improvement processes, water and air control regimes, erosion risk and soil pollution which are critical to sustainable management of land resources. Also, for the purposes of managing the part of land resources covered by grass, it is necessary to develop a program for revitalization of pastures and natural meadows. In the context of natural resource management it will also in the future time frame be necessary to continue supporting conservation of genetic resources and support the organization of gene banks for plant and animal resources.

At all levels, strengthen the public and private extension services in agriculture and improve the qualifications of all those providing advisory services by high quality and regular training of their personnel, with the aim of further dissemination of knowledge primarily related to implementation and opportunities for drawing financial funding (project design and drafting), use of new technologies, responsible management of natural resources, alleviating and adapting to climate change. The advice should also cover security standards at work and standards connected to the good agricultural practices, good production practices, HACCP, as well as providing advice to agricultural producers establishing agricultural holding for the first time.

6. Strategic measures

These six strategic objectives will be achieved through the implementation of 11 broad strategic measures, with specific implementation being achieved through corresponding sub-measures. Implementation approaches and methods will be harmonized at all levels, where appropriate.

6.1. Direct support to agricultural producers

General description of the measure: In BiH the largest part of monetary support to agricultural producers is still carried out through direct payments which use up 90% of agriculture budgets of the two Entities and Brcko District. In addition to payments per area unit and per conditional livestock unit, there are also still direct payments being made per output and input unit (more in RS, than in FBiH). In this way, the increase in production amount is stimulated, which is justified due to high foreign trade deficit and considerable unused land areas. However, we should take into account that such support is not sustainable in the long term and may potentially send a wrong signal to agricultural producers that they are more competitive than they really are, in relation to market circumstances. Additionally, in the case of implementing the payments per unit output in the years when production is reduced due to draught or disease in certain regions, the subsidy amounts are also reduced, thus bringing the producers in those regions in even worse situation. In addition, in the cases when payments per unit of the output are applied, in case of drought or disease in certain regions, there is also a decrease in the level of support, thus placing the producers in these areas in even more difficult situation. This is also not in compliance with WTO and EU rules. In this connection, activities should be inevitably directed toward gradual abandonment of a direct link between incentives and primary production and gradual transition to payments per area that are not connected to a particular type of agricultural production. The measure applies to direct payments only and not to the other types of subsidies.

Key aspects of the approach and its implementation methods: Strategic commitments in Federation BiH, Republic of Srpska and in Brcko District BiH are to gradually move away from direct payments per input and output unit, towards direct payments per unit area and per conditional stock unit. This has already been achieved in Brcko District BiH, whilst in the Federation BiH and Republic of Srpska it has been postponed until such time when pre-conditions for ensuring correct distribution and effective control of awarded funds are in place. Apart from ensuring security and stability of income, security of business activities and equalizing business conditions of domestic producers in relation to producers from the region, the other objective of introducing direct payments per area unit is gradual approximation to EU regulations i.e. a step towards harmonization of BiH agricultural policy with the CAP. With uniform direct support per hectare for all crops, this will promote more optimal use of farm land over time, aligned more directly with changing market demand, ensuring that policy does not favor any specific subsector over another and promoting more rational and cost-effective allocation of natural resources.

In accordance to the CAP rules, countries are allowed to keep the subsidies per output unit for strategically important products, which in this region will surely be, for some time yet, products such as milk and possible wheat.

Therefore, in the coming period, all competent institutions will go in the direction of: increasing the total amount of available funds and improving the model of financing the agriculture and rural development sector; gradual harmonization of the types of incentives, in the goal of their harmonization within BiH and with support of EU CAP type; gradual redistribution of funding

sources, in order to secure more funds to support agricultural investments and other rural development support measures, as defined by the priority strategic measures.,

Sub measures list:

- 6.1.1 Direct payments for Livestock and fisheries;
- 6.1.2. Direct payments for plant production;
- 6.1.3. Direct payments per input and output units;
- 6.1.4. Direct payments for other agricultural and food products.

FINAL BENEFICIARIES: Natural and legal persons registered in the AHR/RC

ADMINISTRATIVE PROCEDURES AND SELECTION CRITERIA: Administrative procedures and selection criteria are laid down by the institutions/donors which are directing the funds toward implementation of this measure, and they will be defined in relevant programs/rulebooks on payment of subsidies.

MONITORING INDICATORS:

- > Number of beneficiaries of the measures;
- > Number of sown hectares;
- > Number of the head of cattle for which the premium has been paid;
- > Quantity of purchased products for which premiums are paid
- > The amount of paid subsidies (per individual sub-measures);
- > Growth of volume and value of production.

6.2. Support for investments for agricultural enterprises, producer groups & processors

General description of the measure: It is generally accepted that BiH agriculture is not competitive and that certain measures must be taken in order to improve its market position. One of the tried and tested means of increasing competitiveness is investments in modernization and consolidation of production capacities in agricultural production and processing. Agricultural production in BiH is still, to a large degree, subsistence production in character, i.e. a high degree of production is used to meet home consumption needs (only). This is due to limited production capacities of a large number of small family holdings which do not produce any marketable surplus of production but also lack market access to sell small excess amounts of agricultural products.

Therefore, the task is to promote new investments that will increase the production capacities of agricultural holdings, modernize production and processing by introducing new technologies, improve the quality and safety of agricultural products and support the specialization of production. This policy has the ultimate goal of changing the structure of production as well as the structure of agricultural producers in the direction of producing high-income cultures and consolidation of agricultural holdings, and raising their competitiveness through economies of scale and modernization of technology.

In addition to agricultural producers, this policy also focuses on the food production industry as a logical and necessary continuation of the vertical value chain from production to final consumption of agricultural products. Investments will be supported in the construction of new and modernization of existing processing capacities, with the ultimate goal of substituting

imports of food products and agricultural raw materials and creating potential for competitiveness at export markets.

Key aspects of the approach and its implementation methods: Due to the current low level of productivity and competitiveness in the sector of agriculture and food industry, new investments are needed in the construction and modernization of facilities, purchase of new mechanization, agricultural land management and raising of perennial fruit plants.

For this kind of investment, it is necessary to provide grants in a certain percentage of the total investment. Increasing the amount and diversification of grants will have positive impact on the motivation of agricultural producers, expansion of production and additional investments.

Support to the establishment and development of agricultural producers 'groups (associations and cooperatives) should be added to that, which will also be supported in the process of establishment and expansion of such groups in BiH. A part of support for investments will also go to agri-food processors (e.g. the food industry) on the bases of contracted purchase of domestic raw materials of agricultural origin and whose development will contribute to increasing exports and/or substitution of imports.

In time, the amounts of subsidies for investments will be increased in accordance with the adjustments in agricultural subsidies and the total available agriculture budget and attraction of additional funding sources.

Efforts will be made to connect/condition all investments with the development of a business or investment plan, which includes clear indicators of cost-effectiveness, shows potential risks and the period of return on investment.

Sub measures list:

- 6.2.1 Support for investments in livestock production and fisheries;
- 6.2.2 Support for investments in plant production;
- 6.2.3 Support for investments in agricultural mechanization;
- 6.2.4 Support to the construction of irrigation and drainage infrastructure and flood protection;
- 6.2.5 Support for establishing and developing producer groups (associations, cooperatives etc.);
- 6.2.6 Support for investments in energy production from agricultural waste biomass;
- 6.2.7 Support for investments in infrastructure and equipment for storage, processing and marketing of agricultural and food products;
- 6.2.8 Promoting agri-food trade and export, including presence at international fairs and exhibitions.

FINAL BENEFICIARIES: Natural and legal persons registered in the RPG/CR

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria are laid down by the institutions/donors which are directing the funds toward implementation of this measure, and they will be defined in relevant programs/rulebooks on payment of subsidies.

MONITORING INDICATORS:

- > Increase in sales and export growth, as a result of investments %;
- > Increasing employment, as a result of investments;

- > Number of beneficiaries of the measure;
- > Number of constructed/reconstructed facilities (by type);
- > Number of purchased equipment (by type);
- > Areas under newly-raised orchards and vineyards (by species);
- > A production volume of energy from renewable sources;
- > Number of supported projects, for the processing of agri-food products;
- > Number of agricultural holdings, associations, cooperatives or SME;
- > Value of investments in KM (by type of support);
- > Value of paid incentives in KM (by type of support);
- > Number of organized visits and appearances at fairs and exhibitions.

6.3. Support for vocational training, knowledge development & acquisition of advice & information

General description of the measure: The measure is designed to help farmers, forest holders and SME's to improve the sustainable management, economic and environmental performance of their holdings and/or businesses. Currently, there are over 350,000 agricultural holdings and approximately 400 legally registered agri-food enterprises active in the sector in crop and/or livestock production. The majority of these are small-scale farms that require targeted support to tackle various challenges they are facing such as low productivity, access to credit, effects of natural calamities, high costs of inputs and weak market organization. Different models to help develop advisory services in the country have been supported in the past with varying degrees of success. Overall significant capacity building initiatives with lots of training, information and resourcing for both public and private advisors were delivered. Over time, models of providing advisory services with varying degrees of accessibility and efficiency have been developed in parallel: a public model of the advisory service, in the ministries of RS and BD BiH and the cantonal ministries or institutes in FBiH, with limited capacities in people and equipment in relation to the total number of beneficiaries.

However, no specific, sustainable model has evolved that can adequately support the sector advisory needs at all levels. In any case it must be emphasized that a pool of trained people and service providers do exist that could provide a significant resource for the development of an effective advisory system at entity and BD BiH level, combining both public and private service provider resources and capacities.

Public funding for advisory services has been exclusively provided for public extension service providers. However, the range and comprehensiveness of these services remain limited due to constraints in funding, expertise and mandate. Thus, the measure must ensure that it bridges existing gaps in expertise, resources, market access, and quality service provision and is able to address these needs in a more comprehensive way, and also lay the foundations to attract future EU pre-accession funding available to support advisory and training activities. Therefore, future funding will be provided to support both public and private advisory service provision.

Based on the diversity of needs identified, activities will be targeted towards advice on economic development for all sub-sectors active in agriculture and rural development with a focus towards a gradual fulfillment of relevant EU, international and local quality standards. Wider domains of advice such as climate change and risk mitigation and adaptation will additionally support the contribution of the measure to enhance the overall confidence of the farmers towards investing, in line with the agricultural and rural development policies.

That is why this measure will support improvement of quality and availability of advisory services, which can satisfy the beneficiaries' needs and institutional requirements at the same time. Such integrated systems are now being developed and supported in the majority of EU Member States, aiming to ensure complementarity in the provision of advice in support of both CAP Pillars. This is also the basis of the approach pursued by BiH, as articulated in the current entity level advisory services development strategies.

Finally, the provision of training of trainers and training for advisers will be a very strong component under this measure in order to ensure a quality-based professional advisory service, developed through skilled expertise. This will enhance the quality, type and effectiveness of the advice offered.

Key aspects of the approach and its implementation methods: In order to improve the system of providing advisory services by public and private operators, all providers of advisory services will be required to provide adequate quantity and quality of services, which will be defined by the competent authorities of entities and BD BiH.

Provision of advice will be aimed at, farmers, small and medium entrepreneurs involved in agricultural agri-food and non-agri sectors. The advisory services supported under this action will also directly support the delivery of other agriculture and rural measures, where appropriate (i.e. such as support for potential applicants for investment type measures for farms, processors, infrastructure and diversification).

Beneficiaries of the advisory services measures will be able to choose from a range of services structured around a distinct set of advisory service packages to be defined. The packages will be interlinked and will include certain obligatory services and other optional services. All service packages will be clustered and contribute to a set of advice on business planning, management, productivity improvements, market linkages, efficiency, risk mitigation, management and compliance, project design, planning and management.

The effective transfer of best practice and knowledge to the operational level (holding/enterprise) is dependent on a highly skilled and well-informed advisory service. Support for training of the advisors engaged in all aspects of the on/off-farm advisory service will ensure that the most up to date and relevant information and skills are employed in the delivery of the advisors' service to farmers. Furthermore, participation in continuous professional development activities will allow advisors to enhance their knowledge base on an on-going basis and ensure that they are familiar with the latest techniques and regulatory requirements in a rapidly changing agricultural industry and environment. The development of educated, professional and competent advisors will be promoted, thus improving the quality of services provided to the recipients of advice. This in turn will underpin more efficient and effective practices feeding into more competitive and environmentally efficient farming, forestry and other rural business development practices.

Advisers will also be trained to provide services in the application of good agricultural practices, GLOBALGAP standards, integrated production standards, i.e. integrated protection of plants from diseases and pests IPM –, HACCP standard, i.e. control of potential biological, chemical and physical hazard points to which raw materials, semi-finished products and finished food products are exposed, during their production and distribution.

There are also voluntary standards which facilitate export of products in certain parts of the world (*Halal*, *Kosher* etc.). The level of standardization of agricultural production in BiH is very low and in the coming period it is necessary to support agricultural producers and/or processors to introduce and adopt one or more of the above-mentioned standards to improve their productivity and overall quality standards.

In addition, systems for transfer of knowledge and information (AKIS) will also be developed through financing applied research and linking educational and research institutions on one side, advisory organizations and other providers of advisory services on the other side, and agricultural producers or producer organizations on the third side.

Sub measures list:

- 6.3.1** Strengthening the system of professional information, training and advisory services by developing common training programs, certification systems, information exchange web portal, and monitoring and evaluation of the quality of the system;
- 6.3.2** Support for the development of public and private advisory services in support of agriculture and rural development;
- 6.3.3** Developing and strengthening the agricultural research system and support for practical demonstrations;

FINAL BENEFICIARIES: natural and legal persons registered in the RAH/CR, agricultural advisors from public administration and private sector and other relevant institutions.

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Number of training participants;
- > Number of implemented programs, projects for the application of new technologies;
- > Number of implemented training programs;
- > Number of promotional campaigns.

6.4. Support for the rural infrastructure development and improvement of availability of services to rural population

General description of the measure: Improving the availability of rural services and the general living conditions in rural areas are a critical part of this document to ensure the demographic and economic development of rural communities in BiH. Increasing levels of migration of the rural population towards urban areas and abroad in search of new employment opportunities and better quality of life are all part of the on-going indirect consequences of under-developed physical rural infrastructure and limited availability of certain public services in BiH rural areas today.

Measures in support of balanced rural economic, social and territorial development and promotion of sustainable and inclusive rural economic growth will seek to address this migratory trend and loss of rural communities. This will be achieved through the promotion of targeted small-scale investments in physical rural infrastructure required by local rural communities. Measures in this area will provide support for infrastructure needed for the development of both economic and non-remunerative (public good) investments necessary to achieve development and related environmental protection aims.

Funding will be provided to support infrastructure investments needed for the development of rural areas, including but not necessarily limited to facilities for agriculture related activities (e.g. green markets in the communities, purchase stations, venues for fairs, sale and presentation of products), local access to roads of special significance for local economic development, access to agricultural and forest land, anti-hail protection, electrical energy

supply, waste and water management, , local access to IT technologies, venues for cultural, sport, educational and other activities of the local population, rural services of common interest for groups of villages (IT centers, training centers, fire protection, crafts, tourist points, etc.), local child-care services, etc.

An additional rationale for this measure is to promote the more efficient coordination and use of development projects which have a multi-sector approach, such as for example relevant international projects in the area of regional and rural development. More efficient coordination of such projects will achieve higher levels of efficiency as investments can be targeted to complement and link with each other to enhance local and regional connectivity and develop more effective capacities to manage such projects at local levels, thereby involving and benefiting a wider group of rural stakeholders.

Key aspects of the approach and its implementation methods: The measure will be designed to promote balanced rural territorial development, aiming to improve the living and working conditions of rural populations and improving their overall connectivity and access. Support will be provided through grants for investments in physical infrastructure in rural areas (e.g. road infrastructure, electricity supply, water supply, sewage, radio, TV, internet) and improving the availability of services needed by rural population.

This approach is common in all transition countries where development of rural areas is a dominant priority due to the share of population living in rural areas, large share of territory which is predominantly rural, as well as low levels of development of infrastructure and public services in rural areas compared to urban areas.

Sub measures list:

- 6.4.1** Support to improvement of availability of public services in rural areas (public transport, education, health and social security systems, cultural and sports facilities);
- 6.4.2** Support to improvement of public infrastructure in rural areas (road infrastructure, field roads, anti-hail protection, water supply, internet, Radio and TV signal, electricity supply, infrastructure for waste management);
- 6.4.3** Support to revitalization of livestock and green markets;
- 6.4.4** Support for research and protection of natural and cultural and historical heritage.

FINAL BENEFICIARIES: Population of rural areas, local communities, civil society organizations, partnerships at local level;

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > % of rural population (households) to which certain services are available (by types);
- > Number of constructed, reconstructed and maintained rural infrastructure facilities (by types);
- > Number of sports, cultural and other manifestations held in rural areas;
- > Value of invested funds in KM;
- > Population numbers in rural areas, migration balance;
- > Number of approved projects for establishment of public services.

6.5. Support for diversification in rural areas

General description of the measure: Diversification is considered a key component of rural development of an area. Investments which are planned for agriculture and food sector shall ensure long term sustainability of these sectors. However, even though the investments in primary sectors will to a certain extent support general growth, it is likely that they will not have a significant effect on the growth of the GDP, or generally speaking, there is little prospect that they will lead to higher employment. We base this on the fact that modernization and more machinery in the primary sectors in most cases result in better paid jobs, but also in reduction of the total number of jobs. Therefore, diversification in rural areas is necessary. There are two significant factors for that: (i) there is a higher probability that diversification in rural area will result in rise of employment, as there will be reduction in employment in primary agricultural production, and (ii) new companies will most likely operate in the fields with high growth rate such as the service sector, which means that those jobs will most likely be better paid and be of higher value for the economy of the Entity or BD in the long term.

Through development of non-agricultural activities, such as rural tourism, processing of agricultural products, wood processing, craftsmanship or some other service-providing activities, level of dependence of agricultural holdings on agricultural production is decreasing, and income is generated from multiple sources, thus making better use of the workforce on the agricultural holding.

Considering the rich natural, cultural and historical heritage, the diversity of gastronomic offering as well as distinct biodiversity, rural tourism is one of the activities through which this potential should be better exploited.

Therefore, this measure will provide support to families on agricultural holdings and rural area residents who want to initiate diversification of its activities and provide services to rural communities. Examples of such activities can include the following: machinery rings and service centers (common ownership of equipment and its use), promotion of crafts, food processing, other value-added development through sorting, grading and packaging, direct marketing and promotion, wood processing and crafts, rural and other forms of tourism, marketing and brand development, renewable energy production, non-conventional agricultural production and waste management.

Key aspects of the approach and its implementation methods: Creation and development of new economic activities in terms of new agricultural holdings, diversification into non-agricultural activities, including provision of services for agriculture and forestry, activities related to social integration and tourism activities are important for development of rural areas. A measure for development of agricultural holdings and businesses should, above anything else, facilitate initial businesses for young farmers, structural adjustments of their agricultural holdings following their initial establishment. Furthermore, diversification of farmers into non-agricultural activities should be supported as well as establishment and development of non-agricultural SMEs in rural areas. This measure should also encourage women's entrepreneurship in rural areas, as well as the development of small agricultural holdings which are potentially economically viable. Profitability of new economic activities which receive support within the scope of this measure will be presented by submitting a business plan. Support for starting a business should encompass only initial period of the activity life cycle and should in no way become assistance for operational costs. This measure will also be optimized if it is developed as part of local development strategies where local rural communities can identify key local strengths and opportunities for rural business diversification for their area.

Sub measures list:

- 6.5.1** Support for investment in diversification of activities related to employment both on and outside agricultural holdings;
- 6.5.2** Support for investments for development of rural tourism;
- 6.5.3** Support for starting micro-businesses in rural areas (including training and education programs for starting a new business);
- 6.5.4** Support for development of social organizations and social services in rural areas;
- 6.5.5** Support for establishing local action groups, developing local development strategies and managing smaller projects in local rural communities.

FINAL BENEFICIARIES: Natural and legal persons registered in the Register of Agricultural Holdings/Client Register, population in rural areas and members of LAGs.

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Number of submitted and approved applications;
- > Number of agricultural holdings with diversified sources of income;
- > Number of supported beneficiaries;
- > Number of beneficiaries who were granted support for development of micro and small entrepreneurship;
- > Number of realized overnight stays on the holdings that are in the rural tourism business;
- > Total amount within the measures in KM;
- > Number of jobs created (structure per gender and age);
- > Number of newly-formed LAGs;
- > Number of developed local development strategies

6.6. Support for development of public food safety and agri-food quality infrastructure and services

General description of the measure: Ensuring the quality and safety of food today has become imperative. Fulfilling the preconditions for control, monitoring and proving the quality of food and traceability in the process of its production and processing have become one of the key challenges and preconditions for its export, not only to the EU market, but also to other international markets as well. Also, efficient legislation and its implementation, as well as procedures related to the control of food quality and safety in the interest of consumers and general public health are all part of the overall food quality system.

Establishing a system for monitoring and proving quality and safety of food is one of the biggest challenges which BiH faces in the future period and it requires considerable personnel, material and financial resources, as well as establishing the legal framework and functioning mechanisms and institutional capacities for its implementation.

Connected to this food safety system is regulation of the quality policy of agricultural products and food, through market standards (GLOBALGAP, GRASP, GMP), systems for quality such as HACCP, integrated production, organic production but also indications of geographical origin (PGI), Protected Designation of Origin (PDO), Traditional Specialty Guaranteed (TSG) and other quality schemes whose gradual harmonization with the EU legislation is underway.

Further development and promotion of this policy area will provide consumers with assurances on the quality and characteristics of the product or the production process. Participation of agricultural producers or producer groups in these schemes should contribute to achieving added value to products and improve their marketing opportunities on both domestic and international markets.

Laboratories present significant components within an efficient food safety and quality monitoring network and they must be supported by appropriate expertise and adequate equipment for physical, microbiological and chemical analysis.

Laboratory analyses are necessary for: identification of contaminated food, identification of food poisoning source, enabling application of legislation and activities undertaken in order to prevent unsafe and adulterated food entering the human food chain, confirming the safety of domestic exported and imported foodstuffs, enabling risk assessment of food exposure, enabling food consumer and producer organizations to monitor and analyze the quality of food available to consumers, providing assistance in the process of regulatory decision-making and assessing the effectiveness of interventions in the area of risk management.

The laboratory network should be reliable and should operate in accordance with international qualitative standards which are aligned with the official system for food control.

Support will be necessary in view of accreditation of certain methodologies and testing systems and the need to improve the network of laboratories for food safety is evident, taking into account geographical differences and needs.

Particular attention should be paid to preventing overlapping of activities and increasing coordination between laboratories involved in the food safety and the quality control system.

When food on the market poses a risk, emergency measures should be taken in order to send out information on the hazard. It is sent out by those countries that recognize the problem and initiate relevant measures, such as withdrawal of the product, for example. Such information is intended to alert all members of the network about the existence of disputed products on the market. After receiving the warning information, a country which is a member of the network may take appropriate measures in a timely manner, in the goal of protecting consumers who need to be convinced that such product has been withdrawn from the market. A rapid alert system (RASFF) needs to be improved.

Key aspects of the approach and its implementation methods: Competencies for certain aspects of defining and implementing food control in BiH are regulated by the legislation and mostly relate to the entity level.

In the framework of this measure, gradual harmonization of legislation in BiH and their harmonization with EU legislation and countries outside of EU will take place at all levels, in accordance with competencies, and especially regarding the introduction and regulation of the quality policy, gradual introduction of EU standards and practices, GLOBAL GAP, GRASP, IFC; ISSO; HACCP, PGI-PDO-TSG and other relevant schemes for protection of quality and relevant legislation.

BiH currently applies two different legal frameworks in dealing with these issues; one implemented by the BiH Food Safety Agency, and another, implemented by the BiH Institute of Intellectual Property Rights. Such a situation in practice can create confusion for producers and their associations, which cannot be a permanent solution. Food products are eligible for all three logos: PDO, PGI and TSG. In addition, there are also a number of optional quality terms, and separate rules on organic farming. Quality schemes are also supported by the marketing standards.

The insufficient institutional capacity, the lack of interest of food producers, absence of relevant information and producer training is reflected in the low number of PGI-PDO-TSG and other schemes applications and approvals. Capacity-building activities need to be strengthened in order to foster the creation of different local organizations interested to protect traditional food in BiH.

There is also a lack of public-private coordination in promotion of the PGI-PDO-STG certification of typical regional products with unique physical and cultural characteristics- the basic PGI-PDO-STG requirement. Key stakeholders are not organized enough to apply for a PGI-PDO certification for their local products. Farmers and groups of farmers should be encouraged and technically supported to apply and participate in such schemes. Actions will be taken to strengthen authorities responsible for official controls carried out to verify compliance with the legal requirements related to these quality schemes. Actions will also be taken to improve awareness of local producers and consumers through provision of relevant training and targeted awareness-raising activities.

Priority will initially be given to strengthening those institutions and personnel which are responsible for dealing with food safety crisis management situations, helping to clearly define the role of each institution at different administrative levels in such situations and the coordination mechanisms that will be required to ensure rapid and direct actions to protect BiH consumers and the food industry. Failure to strengthen these structures has the potential to weaken the overall integrity of the food safety control system which would undermine the whole agri-food brand.

In this context, laboratories represent key component in the development of strong food control system and it is necessary to strengthen capacities and harmonize method of work of existing laboratories at the level of entities and Brcko District BiH.

In addition to the legal aspect of regulating food safety chain, it is necessary to support all those activities with appropriate IT, laboratory and other equipment which is one of potential areas of EU support in this sector in BiH.

Sub measures list:

- 6.6.1** Harmonization of food safety legislation, in line with the EU standards and best practices to support the development of competitiveness of agri-food products;
- 6.6.2** Gradual harmonization of legislation and practices with quality policy - EU PGI-PDO-TSG legislation - for introducing, registering and promoting PGI-PDO-TSG products and other quality schemes;
- 6.6.3** Support to producers' certification according to GLOBALGAP standards;
- 6.6.4** Support to producers for integrated production (IP) certification;
- 6.6.5** Support to producers and processors to meet HACCP standards, good hygiene practice requirements and international trade and export standards;
- 6.6.6** Support for introduction of food safety and quality systems and PGI-PDO-TSG products.
- 6.6.7** Improvement of the system, institutional capacities and official controls;
- 6.6.8** Strengthening capacity for crisis management in food safety through capacities for response and management of emergency situations
- 6.6.9** Strengthening laboratory capacities, including assessment and approval by the competent authorities

FINAL BENEFICIARIES: Natural and legal persons registered in the RPG/RK, laboratories; competent authorities.

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Number of adopted plans, legislation and bylaws and guidelines;
- > Number of regulations harmonized with the EU regulation;
- > Number of legal entities or natural persons that have introduced quality assurance systems and/or hygiene standards;
- > Number of trained agricultural producers and issued certificates;
- > Number of registered products with geographic and other indications;
- > Number of registered protected products (PDO, PGI, TSG);
- > Number of accredited laboratories;
- > Number of new accredited methods;
- > % reduction of incident situations.

6.7. Support for veterinary and phytosanitary systems and services

General description of the measure: Veterinary and phytosanitary policies play an important role of each country. Inadequate implementation of veterinary/phytosanitary activity may result in an increased incidence of infectious diseases in animals / plants. In the case of zoonosis and humans, food of animal origin is often a source of infection and the state loses its ability to participate in international trade in animals and products of animal origin. Due to a permanent threat to human and animal health, organization and implementation of animal health protection and implementation of veterinary public health measures must be a priority of national interest for each country. A well-established veterinary and breeding and selection service has the purpose of achieving an adequate level of animal disease control, breeding control, productivity and a consequent satisfactory system of food safety, to raise consumer confidence, protects the environment and agriculture, and contributes to the possibilities of trade in animals and animal products with third countries.

In BiH, there are systems for registration and approval of food business operators and they are conducted by the entity ministries. Although there is a common framework and a single principle of registration and approval of food business operators, activities are not harmonized.

Records on operators in the business of food for human consumption/feed are kept by the entities, BD BiH and cantons, data is available but it is not centralized.

Animal identification and control of movement represent key tools for preparation and implementation of the measures for the control of infectious animal diseases as well as the system for assigning health status.

It must be emphasized that the existing animal identification system is not functional, and there is a need for its redefinition.

Flaws in the system and problems that may arise accordingly are stated in the recommendations of the FVO inspection mission for milk, conducted in BiH.

A comprehensive, multi-annual approach to the control of animal diseases and zoonosis and a strategic approach to strengthening of capacities for animal welfare are necessary to ensure

consumer protection and to create conditions for export of live animals and products of animal origin from BiH.

Given the significant socio-economic impact of contagious diseases which are suppressed in accordance to the legislation in force, ensuring the implementation of programs for the control of those diseases is necessary for strengthening of agriculture sector in the field of cattle breeding in BiH, and maintaining competitiveness of BiH producers.

It is also necessary to take into account appearance of exotic diseases with cross- border effects in the region over the past few years, which further complicated the efforts of veterinary service to maintain favorable health status of animals and to insure conditions for unimpeded international trade in live animals and products of animal origin.

It is also necessary to establish a functional system in the phytosanitary area, covering plant health, seed, planting material and protection of new varieties, plant protection products (PPPs) and mineral fertilizers.

Each non-compliance with EU legislation possibly presents an obstacle to progress in EU accession negotiations.

Key aspects of the approach and its implementation methods: Food safety, veterinary, breeding and selection and phytosanitary areas in BiH should continue with further institutional and administrative capacity development.

Legal framework in these areas is constantly improved, especially in view of implementation legislation; however, the legislation in these areas should be further harmonized and adopted with the goal of full compliance with the EU standards and best practices.

In a wider context the quality of domestic production is also achieved through control and improvement of the quality of seeds and planting material, programs and measures for plant health protection and use of plant protection products as well as implementing programs and measures for animal health and welfare protection.

Establishment of integrated pest management (IPM) in the framework of integrated production, obligatory since 2014 in the EU, would make the plants and plant products more competitive in the EU.

There is a need for development of IT support for recording, data collection, flow and analysis of data related to official control, laboratory analyses, monitoring data, food borne diseases etc. There is also a need to establish a system for data exchange between institutions at different levels of government.

It is necessary to prepare and implement the programs of support for production of high quality seeds and planting material, plant health protection and the use and application of plant protection products.

Such program will be prepared and implemented for animal health protection and improving animal welfare.

Sub measures list:

- 6.7.1 Continuation of harmonization activities of veterinary, breeding and selection and phytosanitary legislation and practices with EU standards and best practices to support enhancement of agri-food product competitiveness;
- 6.7.2 Strengthen the capacities of competent authorities and inspection services for phyto and veterinary, areas in line with EU requirements and best practices and defined by the Constitutional competencies;

- 6.7.3 Improving animal identification system and movement control system in line with Constitutional competencies;
- 6.7.4 Improve the system of official controls for veterinary, breeding and selection services, food safety and phyto areas in line with Constitutional competencies;
- 6.7.5 Strengthen the capacities of competent institutions for management of animal and plant disease crisis situations /emergency cases/ contingency planning for an agreed prioritized list of diseases in line with Constitutional competencies;
- 6.7.6 Strengthen the IT capacities of competent authorities and systems for collecting data in veterinary, breeding and selection services and phytosanitary area in line with Constitutional competencies;
- 6.7.7 Strengthening laboratory capacities, based on the assessment and proposal of competent authorities in line with Constitutional competencies;
- 6.7.8 Preparing and implementing the program of support for production of high quality seeds and planting material in line with Constitutional competencies;
- 6.7.9 Preparing and implementing the program of support for plant health protection and the use and application of plant protection products
- 6.7.10 Preparation and implementation of a program for animal health protection and improving animal welfare

FINAL BENEFICIARIES: Natural and legal persons registered in the RAH/CR laboratories; competent authorities.

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Number of adopted plans, programs, laws, bylaws and guidelines;
- > Number of harmonized entity laws;
- > Number of regulations harmonized with EU legislation;
- > Animal Identification System in function;
- > Phyto registers, registers of seed and planting material in function;
- > Number of trained inspectors;
- > % domestically produced seed;
- > % domestically produced planting material.

6.8. Support for organic production, environment protection & reducing the impact of climate change

General description of the measure:

Organic production: Throughout the world, organic production is becoming increasingly important. This is the result of the growing level of consumer consciousness about the importance of healthy eating and growing trends in the demand for natural, organic agriculture and food products. This presents the agricultural producers in BiH with a significant opportunity to complement the production and supply of standard agricultural products with a targeted range of organically produced agriculture and food products. This is because of the relatively well-preserved agri-environment, the abundance of virgin land and unpolluted waters that provide the essential preconditions to develop this type of production. In addition, traditional methods of production frequently used in BiH, in many ways correspond to the

principles of organic agriculture, and therefore offer an additional advantage for many producers that may be attracted to develop organic production farming systems. Therefore, this measure will support the strengthening of the organic production sector, in accordance with EU practices and the requirements of the organic agriculture market, based on the systems for control and certification of organic production, in accordance with internationally recognized standards at the level of EU, IFOAM and Codex Alimentarius. It should be noted that the export of products that are certified for organic production is increasing every year. This trade stimulates the development of system of a broader support, certification and control system which will aim to gradually expand the range of products and market opportunities for BiH organic products.

Environmental protection: BiH is rich with indigenous plant and animal species (breeds and varieties) which make up an important part of the genetic and cultural heritage of rural areas. Preservation of this natural resource base is therefore critical, as part of a broader integrated rural development plan and program. The measure will therefore promote the introduction of policies, programs and practical initiatives to ensure the application of good agricultural and environmental practices; protection and sustainable use of agricultural land; and the broader protection of BiH biodiversity and rural landscapes. This will include: establishing systems to allow for the continuous monitoring of the use of agricultural land; monitoring the level of potential pollution and erosion; monitoring the potential loss of agricultural land due to its transformation into land for construction; and monitoring of public and private grasslands and meadows and their sustainable use and protection.

Climate change risk management and mitigation: Development of agriculture in BiH is increasingly being affected by the consequences of climate change. This includes the increase in extreme weather conditions which have led to more frequent and heavy precipitation and flooding, erratic changes in temperature and more unpredictable seasonal conditions for certain crops. These changes have already had significant consequences for the yields of certain commodities. And such changes will gradually impact upon the choice and range of crops, requiring the development of more mixed cropping farming systems and more diverse farm management practices. In such circumstances, the risks to the incomes from agricultural holdings, the quality of life and the socio-economic status of rural households are gradually increasing. Therefore, sub-measures will be developed and implemented to assist farmers in addressing the impact of climate change, helping with risk management and strengthening the provision of advice, training and information to help the sector cope with the changing conditions, guided, where relevant, by EU experience and best practices.

Key aspects of the approach and methods for its implementation:

Organic production: Given the increasing importance of organic production and the growing demand for consumption of organic products, it is necessary to create a sustainable system for such production. Financial support will be provided to farmers and processors seeking to become organic producers to assist with the costs of certification and related investments. To facilitate this support, the institutional support structures for organic production regulation, certification and control will be strengthened. In addition, the legal framework that will regulate organic production in BiH will be aligned with the EU requirements and support will be provided to ensure quality and market standards of BiH organic production.

Environmental protection: To ensure the protection of rural areas with natural constraints support will be provided for the development and implementation of pilot programs. Lessons learnt during the pilots will be used to guide the development of a more comprehensive set of policies and measures for the conservation and sustainable use of agricultural land and genetic resources. Support will also be provided for the protection and promotion of indigenous plant

and animal species (breeds, varieties) that have an invaluable importance as a genetic resource of the country and represent an important part of genetic and cultural heritage. It is very important for BiH to preserve indigenous animal breeds such as the *Bosnian highlands horse*, *Bosnian Tornjak sheep dog*, *Gatacko cattle*, *Busa (Busha) cattle*, *Pramenka*. There are also numerous plant varieties and indigenous plant genetic resources which also require similar protection. This will be achieved through the establishment and /or strengthening of dedicated gene banks, where possible.

Climate change: Support will be provided to farmers to promote the introduction of new technologies that can help prevent or mitigate the effects of climate change and respond to the challenge of growing food production needs. Support through advisory services will also be promoted to help farmers to adapt agriculture production systems to respond to the effects of climate change and help with risk management. Options for support for crop insurance schemes that extend cover for crops affected by extreme weather conditions caused by climate change will also be explored and potentially piloted. Monitoring systems to assess the climate change effects and support for scientific innovations and dissemination of knowledge and information in this area will also form part of the responses to be developed and implemented. In addition, investment support provided for agricultural holdings will be designed to prioritize the funding of new technologies and practices (such as application of agro technical measures, assortments, systems of cultivation and management) that contribute to the reduction of global warming and/or provide innovative solutions.

List of sub-measures:

- 6.8.1** Support to production, certification and control of organic production at all levels, in accordance to EU best practices and market requirements;
- 6.8.2** Drafting and implementation of an agricultural land monitoring program (fertility, pollution, erosion, conversion etc.) and creation of a regulatory framework for effective agricultural land monitoring;
- 6.8.3** Drafting and implementation of pilot program for development and protection of areas with natural constraints (less favored areas);
- 6.8.4** Development and adoption of programs for the revitalization of pastures and natural meadows;
- 6.8.5** Development and implementation of programs to support conservation and sustainable use of genetic resources (i.e. gene banks, field collection, botanical gardens awareness raising, publications, etc.);
- 6.8.6** Support of targeted programs for reducing the effects of climate change on agricultural production and innovative actions (e.g. investing in renewable energy sources at agricultural holdings - solar and geothermal energy, organic waste energy etc.).

FINAL BENEFICIARIES: Physical and legal entities registered in the Register of Agricultural Holdings/Client Register, competent authorities or organizations

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Number of beneficiaries;
- > Size of the area under organic production;
- > Total area of revitalized pastures and meadows;

- > Species and number of animals of indigenous breeds and species, number and areas planted with indigenous varieties for which support is provided;
- > The number of agricultural holdings, associations or cooperatives that meet the conditions for this type of support;
- > Value of paid support in KM;
- > Level of support for the gene bank maintenance in KM;
- > Number of projects for mitigating effects of climate change on agricultural production.

6.9. Support for development of administrative sector and data support services

General description of the measure: To address the lack of reliable information, statistics and administrative data systems to effectively manage and support the sector there is a need to upgrade all of the current sector support systems and services, at all levels in line with Constitutional competencies.

The EU has developed standardized approaches and methods for the collection of such information and the systems which are required to support it.

Strengthening agriculture information, statistical and administrative systems in BiH is needed to support the implementation of agricultural policies and their monitoring, and using the results to assess policy impact and guide adjustments in certain measures to make them more effective.

This measure will support the establishment of basic elements of harmonized agricultural information and administrative system for support of the sector, and it is related to the development of enhanced registers of agricultural producers, according to EU standards at entity and BD BiH level, which will represent a platform for ensuring that producers meet the eligibility criteria for future financial support.

Additionally, the measure also included development of the Register of Domestic Animals, established in accordance to EU standards, which will be clearly linked to financial support and which will ensure the control of domestic trade in animals and traceability of animal products, which are necessary conditions for meeting EU market standards, as well as the initiatives for strengthening the system for collecting agricultural statistics, comparing and sharing them, in order to gradually align with Eurostat standards.

Improved harmonization of the approaches used for system design and development will optimize the use and efficiency of the resources; and enhance coordination and cooperation between all governance levels, in the interests of the agriculture sector and its future development. This will require linking entity and state level databases and gradual creation of information and administration system, as required by the EU.

Key aspects of the approach and methods of its implementation: The approach in developing and implementing this measure will be to ensure improved data collection and establishment of appropriate data exchange networks between the different levels of government in BiH which are standardized and harmonized to ensure the quality, integrity and reliability of all data sources. It is also necessary to harmonize this type of information with EU norms and standards regulating collection and processing of data, making it available in accordance to certain specifications, level of accuracy and representation of the target population.

Establishment of the support model that will enable data collection and data analysis in the FADN, support to updating the system of registers of agricultural holdings and clients,

maintenance and regular updating of PTIS, establishing the model for regular maintenance and updating of digital orthophotos and digital cadastral plans in the framework of LPIS are part of necessary activities in order to raise the level of development of PTIS in BiH.

In short, it is necessary to secure support for the gradual development of the complete infrastructure, in order to establish and maintain individual information systems, enable their communication and data exchange and enable them to act in such a way as to provide pre-defined information, available to state, entities, BD and European Union institutions, in accordance to common standards.

List of sub-measures:

- 6.9.1** Establishment, development and maintenance of harmonized agriculture producer's registers in line with the Constitutional competencies;
- 6.9.2** Improvement and maintenance of animal identification & movement system in line with the Constitutional competencies;
- 6.9.3** Improvement and maintenance of FADN accounting data network in line with the Constitutional competencies;
- 6.9.4** Strengthening of the systems and services for Agricultural Statistics in line with the Constitutional competencies;
- 6.9.5** Establishment and maintenance of Agricultural Marketing Information System (AMIS) in line with the Constitutional competencies;
- 6.9.6** Establishment of Land Parcel Information System (LPIS) in line with the Constitutional competencies;
- 6.9.7** Establishment of Agriculture Forecast Reporting System (AFRS) in line with the Constitutional competencies;
- 6.9.8** Implementation of Agricultural Census in line with the Constitutional competencies.

FINAL BENEFICIARIES: competent institutions at all levels of governance;

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > New statistical data available and published;
- > New systems operational;
- > Number of staff trained to work on new systems and services.

6.10. Support for development of institutional management capacities

General description of the measure: Strengthening institutional capacities for creation and implementation of agricultural policy in BiH is one of the most important and complex cross-cutting objectives of the Strategic Plan, without which effective implementation of practical actions and measures defined within the Strategic Plan will not be possible.

Linked to the on-going budget limitations, significant institutional capacity challenges also exist in the current competent structures with respect to: policy and program management, analysis, monitoring and administration capacities; payment systems, procedures and services; registries and other related administrative systems and services; inspection and control services; etc.

Capacities and mechanisms at entity and state level in place to facilitate agriculture and food sector trade and the implementation of extensive commitments defined under current free trade agreements with the EU and CEFTA Agreement, also remain very limited. This weakness also extends to the area of trade facilitation, export promotion and protection of domestic production.

Strengthening these and other linked institutional capacities in the next period will be a critical part of the strategy to promote increased competitiveness, trade and export of BiH agri-food products.

Key aspects of the approach and implementation methods: To support the more effective development, coordination and implementation of agriculture, food and rural development policies in the sector and ensure the implementation of the broad and complex range of specific measures defined in this Strategic Plan, the strengthening of institutional capacities at all levels will be essential. The capacities of the institutions responsible for the sector of agriculture will be strengthened, in terms of human resources development and the improvement of administrative practices and processes, which will result in better efficiency of work of public administration, directed toward beneficiaries' interests.

The competent institutions, in cooperation with the governmental and non-governmental sector, are continuously working on the preparation, harmonization and adoption of laws and bylaws which are necessary and of importance for the agriculture and food sector taking into account that they are compatible, to the greatest possible extent, with the Acquis Communautaire, in order to carry out timely preparations for full takeover of the EU regulation, when BiH becomes a member of that integration.

In order to improve the functioning of agricultural payment systems within BiH, an initiative will be introduced between relevant entity, BD BiH and BiH state level institutions, in order to develop a plan for gradual harmonization of procedures and guidelines between all levels of governance and alignment with ones applied by the EU, as a part of preparatory activities for pre-accession funds

These institutional strengthening initiatives will also be complemented by support for internship programs and scholarship schemes in order to promote and attract new, young, talented individuals to become involved in sector of public administration and management. The aim will be to initiate a program that can generate future sector managers and leaders that will be required in the future as the EU integration agenda proceeds and the complexity and range of regulatory functions increases.

The overall aim of these institutional assessments and subsequent adjustments will be to improve efficiency and effectiveness of all organizational units and levels, and to gradually strengthen links and partnerships between key public and private sector organizations, and with local rural organizations and development partners which will be involved in newly planned rural development initiatives.

Sub-measures list:

- 6.10.1** Strengthening capacities and increasing efficiency of ministries and associated public institutions and organizations in line with the Constitutional competencies;
- 6.10.2** Adoption and harmonization of legislation in the area of agriculture at all levels of governance, in line with the Constitutional competencies;
- 6.10.3** Improvement of financial management in agriculture and rural development, and control and coordination structures and capacities in line with the Constitutional competencies;

- 6.10.4** Establishment of systems for monitoring and evaluation of public policies in support of agriculture and rural development;
- 6.10.5** Adoption of measures to improve foreign trade of agricultural and food products and protection of domestic production at all levels;
- 6.10.6** Strengthening of horizontal and vertical institutional coordination and information exchange amongst the competent authorities for agriculture and rural development with other relevant sectors in BiH.

FINAL BENEFICIARIES: competent institutions at all levels of government in line with the Constitutional competencies.

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Annual verification of staff skills in the institutions;
- > Number of newly created and adopted policies and procedures, aligned with the EU;
- > Number of new, harmonized laws and implementing regulations adopted;
- > Financial reporting on management and monitoring of public funds;

6.11. Cross-cutting initiatives

General description of the measure: The problem of agricultural producers aging population is highly pronounced in Europe as a whole and BiH is not an exception. Despite the lack of jobs and very limited employment opportunities a very small number of young people choose agriculture as their business. This may represent a problem in the long run, especially taking into consideration the fact that in BiH and its Entities and BD BiH there are no initiatives or budgetary support which would encourage the younger generation to continue (or to establish) businesses in agriculture or rural areas. In addition to this issue, there is the additional problem of insufficient gender equality and highlighting the importance of active roles of women in the agriculture sector. In accordance with current EU practice and approximation to EU CAP, a more serious approach to these issues in BiH is required.

Key aspects of the approach and its implementation methods: It is necessary to encourage young people and women to be more involved in agriculture business in order to halt the growing negative trends. Support should be designed in such a way to favor young people/women when applying for certain grants to be specifically targeted for dedicated measures.

Easier and more favorable access to rural loans, easier acquisition of land (or transfer of ownership rights to agriculture producers), favorable approach to implementation of various measures relating to investments in agriculture holdings are all measures which may encourage young people to stay in rural areas and on their property. Also, it is very important to encourage involvement of young people/women in various associations dealing with the agriculture and rural development issues.

Other multidisciplinary topics include agri-environment that is explicitly dealt with through other measures, which will generally be further processed through the promotion, training and certification of producers in the area of good agricultural and environmental practices. This is in fact about cross-compliance, that is, fulfilling requirements related to environmental protection, maintenance of soil fertility, animal welfare and other.

Sub-measures:

6.11.1 Support for young agricultural producers and young entrepreneurs in rural areas;

6.11.2 Support for gender equality;

6.11.3 Support for agri-environmental protection;

FINAL BENEFICIARIES: Natural and legal persons registered in the Register of Agricultural Holdings/Client Register, population in rural areas, young people and women.

ADMINISTRATIVE PROCEDURE AND SELECTION CRITERIA: Administrative procedures and selection criteria shall be laid down by the institutions/donors which direct the funds toward implementation of this measure, and they shall be defined in relevant programs/rulebooks on payment of financial support.

MONITORING INDICATORS:

- > Number of young agricultural producers;
- > Number of young entrepreneurs;
- > Participation of women in investment programs for agricultural holdings and diversification of rural economy;
- > Number of contracts;
- > Size of agricultural land (ha) in environmental contracts;
- > Number of supported activities of certain types.

7. Indicative Action Plan

Detailed action plans will be developed annually

Table 7: Indicative action plan

#	Measure	Sub-measures	Deadline															
			2018				2019				2020				2021			
			BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH
1	Direct support to agricultural producers	1.1 Direct payments for Livestock and fisheries		x	x	x		x	x	x		x	x	x		x	x	x
		1.2 Direct payments for plant production		x	x	x		x	x	x		x	x	x		x	x	x
		1.3 Direct payments per input and output units		x	x	x			x	x			x	x			x	x
		1.4 Direct payments for other agricultural and food products		x	x			x	x				x				x	
2	Support for investments for agricultural enterprises, producer groups & processors	2.1 Support for investments in livestock production and fisheries		x	x	x		x	x	x		x	x	x		x	x	x
		2.2 Support for investments in plant production		x	x	x		x	x	x		x	x	x		x	x	x
		2.3 Support for investments in agricultural mechanization		x	x	x		x	x	x		x	x	x		x	x	x
		2.4 Support to the construction of irrigation and drainage infrastructure		x	x	x		x	x	x		x	x	x		x	x	x
		2.5 Support for establishing and developing producer groups (associations, cooperatives etc.)		x	x	x		x	x	x		x	x	x		x	x	x
		2.6 Support for investments in energy production from agricultural waste biomass		x	x	x		x	x	x		x	x	x		x	x	x
		2.7. Support for investments in infrastructure and equipment for storage, processing and marketing of agricultural and food products		x	x			x	x			x	x			x	x	
		2.8 Promoting agri-food trade and export, including presence at international fairs and exhibitions.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	Support for vocational training, knowledge development &	3.1 Strengthening the system of professional information, training and advisory services by developing common training programs, certification systems, information exchange web portal, and monitoring and evaluation of the quality of the system		x	x	x		x	x	x		x	x	x		x	x	x
		3.2 Support for the development of public and private advisory services in support of agriculture and rural development		x	x	x		x	x	x		x	x	x		x	x	x

#	Measure	Sub-measures	Deadline																
			2018				2019				2020				2021				
			BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	
	acquisition of advice & information	3.3 Developing and strengthening the agricultural research system and support for practical demonstrations		X	X	X		X	X	X		X	X	X		X	X	X	
4	Support for the rural infrastructure development and improvement of availability of services to rural population	4. Support to improvement of availability of public services in rural areas (public transport, education, health and social security systems, cultural and sports facilities);		X	X			X	X			X	X			X	X		
		4.2 Support to improvement of public infrastructure in rural areas (road infrastructure, field roads, anti-hail protection, water supply, internet, Radio and TV signal, electricity supply, infrastructure for waste management);		X	X	X		X	X	X		X	X	X		X	X	X	
		4.3 Support to revitalization of cattle and green markets;		X	X	X		X	X	X		X	X	X		X	X	X	
		4.4. Support to research and protection of natural and cultural and historical heritage;		X	X			X	X			X	X			X	X		
5	Support for diversification in rural areas	5.1 Support for investment in diversification of activities related to employment both on and outside agricultural holdings		X	X	X		X	X	X		X	X	X		X	X	X	
		5.2 Support for investments for development of rural tourism		X	X			X	X			X	X			X	X		
		5.3. Support for starting micro-businesses in rural areas (including training and education programs for starting a new business);		X	X	X		X	X	X		X	X	X		X	X	X	
		5.4 Support for development of social organizations and social services in rural areas		X	X	X		X	X	X		X	X	X		X	X	X	
		5.5. Support for establishing local action groups, developing local development strategies and managing smaller projects in local rural communities		X	X	X		X	X	X		X	X	X		X	X	X	
6	Support for development of public food safety and agri-food quality infrastructure and services	6.1 Harmonization of food safety legislation, in line with the EU standards and best practices to support development of competitiveness of agri-food products	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
		6.2 Gradual harmonization of legislation and practices with quality policy - EU PGI-PDO-TSG legislation - for introducing, registering and promoting PGI-PDO-TSG products and other quality schemes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		6.3. Support to producers' certification according to GLOBALGAP standards		X	X	X		X	X	X		X	X	X		X	X	X	
		6.4. Support to producers for integrated production (IP) certification		X	X	X		X	X	X		X	X	X		X	X	X	

#	Measure	Sub-measures	Deadline																
			2018				2019				2020				2021				
			BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	
		6.5. Support to producers and processors to meet HACCP standards, good hygiene practice requirements and international trade and export standards		X	X	X		X	X	X		X	X	X		X	X	X	
		6.6 Support for introduction of food safety and quality systems and PGI-PDO-TSG products;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		6.7. Improvement of the system, institutional capacities and official controls		X	X	X		X	X	X		X	X	X		X	X	X	
		6.8. Strengthening capacity for crisis management in food safety through capacities for response and management of emergency situations;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		6.9. Strengthening laboratory capacities, including assessment and approval by the competent authorities.		X	X	X		X	X	X		X	X	X		X	X	X	
7	Support for veterinary and phytosanitary systems and services	7.1 Continuation of harmonization activities of veterinary and phytosanitary legislation and practices with EU standards and best practices to support enhancement of agri-food product competitiveness;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		7.2 Strengthen the capacities of competent authorities and inspection services for phyto and veterinary, in line with EU requirements and best practices and defined Constitutional competencies;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		7.3 Improving animal identification system and movement control system in line with Constitutional competencies;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		7.4 Improve the system of official controls for phyto and veterinary area in line with Constitutional competencies;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		7.5 Strengthen the capacities of competent institutions for management of animal and plant disease crisis situations /emergency cases/ contingency planning for unexpected situations in line with Constitutional competencies;	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		7.6 Strengthen the IT capacities and collecting data in veterinary, selective breeding and phytosanitary areas in line with Constitutional competencies	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		7.7 Strengthening laboratory capacities, based on the assessment and proposal of competent authorities in line with Constitutional competencies		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

#	Measure	Sub-measures	Deadline															
			2018				2019				2020				2021			
			BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH
		7.8 Preparing and implementing the program of support for production of high quality seeds and planting material in line with Constitutional competencies		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		7.9 Preparing and implementing the program of support for plant health protection and the use and application of plant protection products		X	X	X		X	X	X		X	X	X		X	X	
		7.10 Preparation and implementation of a program for animal health protection and improving animal welfare		X	X	X		X	X	X		X	X	X		X	X	
8	Support for organic production, environment protection & reducing the impact of climate change	8.1 Support to production, certification and control of organic production at all levels, in accordance to EU best practices and market requirements		X	X	X		X	X	X		X	X	X		X	X	
		8.2 Drafting and implementation of an agricultural land monitoring program (fertility, pollution, erosion, conversion etc.) and creation of a regulatory framework for effective agricultural land monitoring;		X	X	X		X	X	X		X	X	X		X	X	
		8.3 Drafting and implementation of pilot program for development and protection of areas with natural constraints (less favored areas)		X	X			X	X		X	X				X	X	
		8.4 Development and implementation of regional programs for the revitalization of pastures and natural meadows		X	X			X	X		X	X				X	X	
		8.5 Development and implementation of programs to support conservation and sustainable use of genetic resources (i.e. gene banks, field collection, botanical gardens etc.)		X	X			X	X		X	X				X	X	
		8.6 Support of targeted programs to reduce the effects of climate change on agricultural production and innovative actions. (E.g. investing in renewable energy sources on agricultural holdings - solar and geothermal energy, organic waste energy etc.).		X	X	X		X	X	X		X	X	X		X	X	
9	Support for development of administrative sector and data support services	9.1 Establishment, development and maintenance of harmonized agriculture producer's registers in line with Constitutional competencies	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
		9.2 Improvement and maintenance of animal identification & movement system in line with Constitutional competencies	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
		9.3 Improvement and maintenance of the Farm Accountancy Data Network (FADN)	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

#	Measure	Sub-measures	Deadline																
			2018				2019				2020				2021				
			BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	BiH	FBiH	RS	BD BiH	
		9.4 Strengthening of the systems and services for Agricultural Statistics in line with Constitutional competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		9.5 Establishment and maintenance of an Agricultural Market Information System (AMIS) in line with Constitutional competencies;	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		9.6 Establishment and maintenance of a Land Parcel Information System (LPIS) in line with Constitutional competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		9.7 Establishment of an Agriculture Forecast and Reporting Service (AFRS) in line with Constitutional competencies;		x	x	x		x	x	x		x	x	x		x	x	x	
		9.8 Implementation of agricultural census in line with Constitutional competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
10	Support for development of institutional management capacities	10.1. Strengthening capacities and increasing efficiency of ministries and associated public institutions and organizations in line with Constitutional competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		10.2 Adoption and harmonization of legislation in the area of agriculture at all levels of governance, in line with Constitutional competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
		10.3 Improvement of financial management in agriculture and rural development, and control and coordination structures and capacities in line with Constitutional competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		10.4 Establishment of systems for monitoring and evaluation of public policies in the area of agriculture and rural development	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		10.5 Adoption of measures to improve foreign trade of agricultural and food products and protection of domestic production at all levels;	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		10.6. Strengthening of horizontal and vertical institutional coordination and information exchange amongst the competent authorities for agriculture and rural development with other relevant sectors in BiH in line with Constitutional competencies.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
11	Cross-cutting initiatives	11.1 Support for young agricultural producers and young entrepreneurs in rural areas;		x	x	x		x	x	x		x	x	x		x	x	x	
		11.2 Support for gender equality;		x	x	x		x	x	x		x	x	x		x	x	x	
		11.3 Support for agri-environmental protection		x	x	x		x	x	x		x	x	x		x	x	x	

8. Indicative budget framework (2018-2021)

8.1. Total budgetary allocations

Resources needed for the implementation of activities envisaged in this document are defined by the framework financial and strategic documents of the competent institutions, including both budgetary and non-budgetary funds (donor, credit).

The funds envisaged in the Ministry of Foreign Trade and Economic Relations of BiH budget are intended for financing participation at fairs and other events in the country and internationally for the purpose of promoting domestic production. In view of the fact that the funds are awarded for agriculture as well as other activities, the said amount relates to the average amount of funds awarded for fairs and other events in the last three years, relating to agriculture.

The funds planned in the Veterinary Office BiH budget pertain to contracted services for printing earmarks and control of infectious diseases. Increase is planned in the Framework budget for the 2018-2020 period.

Total budgetary allocations for Republic of Srpska are also related to estimated funds awarded at the local community level.

Donor funds (including EU funds as well) represent funds that are lacking for implementation of the set goals and measures, taking into account the GDP growth of 3%, which would ensure an increase in the allocation of funds from all budgets for agriculture and rural development. Share of private funds in implementation of set objectives and measures is based on experiences gained in similar initiatives and activities in Western Balkans countries.

Table 8: Total budgetary allocations (KM)

All measures:	Measures from 1 to 11				
Source	2018	2019	2020	2021	Total
MOFTER and VO	1.796.000	1.796.000	1.796.000	1.796.000	7.184.000
Federation BiH	91.500.000	114.200.000	127.500.000	141.000.000	474.200.000
Cantons in FBiH	20.000.000	23.000.000	23.000.000	23.000.000	89.000.000
Republic of Srpska	99.732.000	111.931.000	117.128.000	124.584.000	453.375.000
Brcko District	8.950.000	9.650.000	9.871.000	10.400.660	38.871.660
Total BiH	221.978.000	260.577.000	279.295.000	300.780.660	1.062.630.660
EU	-	-	-	-	-
Donors	10-15%	10-15%	10-15%	10-15%	10-15%
Private	13-17%	13-17%	13-17%	13-17%	13-17%

8.2. Budgetary allocations per objectives

Table 9: Budgetary allocations per objectives (KM)

Objective 1:		To ensure income stability and harmonize business conditions with the region;				
Source	2018	2019	2020	2021	Total	
Federation BiH	55.500.000	57.200.000	59.000.000	60.500.000	232.200.000	
Cantons in FBiH	16.000.000	16.000.000	16.000.000	16.000.000	64.000.000	
Republic of Srpska	62.365.000	65.735.000	69.230.000	73.375.000	270.705.000	
Brcko District BiH	7.500.000	7.650.000	7.803.000	7.959.060	30.912.060	
Total BiH	141.365.000	146.585.000	152.033.000	157.834.060	597.817.060	
Donors	-	-	-	-	-	
Private	-	-	-	-	-	
Objective 2:		Strengthening competitiveness of agriculture, forestry and rural areas through increasing the level of investments and improving the transfer of knowledge and promotion of innovation;				
Source	2018	2019	2020	2021	Total	
BiH - MVTEO	200.000	200.000	200.000	200.000	800.000	
Federation BiH	15.000.000	29.210.000	33.560.000	38.690.000	116.460.000	
Cantons in FBiH	0	0	0	0	0	
Republic of Srpska	25.056.375	26.209.500	26.569.750	25.613.375	103.449.000	
BD BiH	950.000	1.140.000	1.368.000	1.641.600	5.099.600	
Total BiH	41.206.375	56.759.500	61.697.750	66.144.975	225.808.600	
Donors	10-15%	10-15%	10-15%	10-15%	10-15%	
Private	50-55%	50-55%	50-55%	50-55%	50-55%	
Objective 3:		Improving marketability of agri-food products by increasing value-added activities, improving quality and safety standards and strengthening linkages within the value chains;				
Source	2018	2019	2020	2021	Totals	
VO	1.596.000	1.596.000	1.596.000	1.596.000	6.384.000	
Federation BiH	7.500.000	8.490.000	11.040.000	14.310.000	41.340.000	
Cantons in FBiH	0	0	0	0	0	
Republic of Srpska	2.381.000	2.533.500	2.998.500	3.276.000	11.189.000	
Brcko District BiH	0	0	0	0	0	
Total BiH	11.477.000	12.619.500	15.634.500	19.182.000	58.913.000	
Donors	35-40%	35-40%	35-40%	35-40%	35-40%	
Private	3-6%	3-6%	3-6%	3-6%	3-6%	
Objective 4:		Sustainable management of natural resources and climate change adaptation;				
Source	2018	2019	2020	2021	Total	
Federation BiH	420.000	950.000	1.180.000	1.350.000	3.900.000	
Canton in FBiH	0	0	0	0	0	
Republic of Srpska	805.000	7.742.375	8.158.250	11.750.775	28.456.400	

Brcko District BiH	0	0	0	0	0
Total BiH	1.225.000	8.692.375	9.338.250	13.100.775	32.356.400
Donors	10-15%	10-15%	10-15%	10-15%	10-15%
Private	-	-	-	-	-
Objective 5:	Improving the quality of life in rural areas through new income generating sources and improvement of physical infrastructure, social inclusion and accessibility of public services;				
Source	2018	2019	2020	2021	Total
Federation BiH	5.700.000	9.650.000	11.490.000	13.770.000	40.610.000
Cantons in FBiH	4.000.000	7.000.000	7.000.000	7.000.000	25.000.000
Republic of Srpska	2.914.625	3.375.625	3.451.500	3.723.850	13.465.600
Brcko District BiH	300.000	300.000	300.000	300.000	1.200.000
Total BiH	12.914.625	20.325.625	22.241.500	24.739.850	80.275.600
Donors	10-15%	10-15%	10-15%	10-15%	10-15%
Private	25-30%	25-30%	25-30%	25-30%	25-30%
Objective 6:	Improving institutional systems and capacities and harmonization of the legal framework in agriculture and rural development, at all governmental levels with the aim of gradual approximation to the EU CAP.				
Source	2018	2019	2020	2021	Total
Federation BiH	7.380.000	8.700.000	11.230.000	12.380.000	39.690.000
Cantons in FBiH	0	0	0	0	0
Republic of Srpska	6.210.000	6.335.000	6.720.000	6.845.000	26.110.000
BD BiH	200.000	300.000	400.000	500.000	1.400.000
Total BiH	13.790.000	15.335.000	18.350.000	19.725.000	67.200.000
Donors	30-50%	30-50%	30-50%	30-50%	30-50%
Private	-	-	-	-	-