Assessment Report for the Sector of Non-Wood Forest Products and Medicinal and Aromatic Plants

Year 2020

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Implemented by

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Table of Contents

Acronyms and Abbreviations

MAFRD	Ministry of Agriculture, Forestry and Rural Development
NWFP	Non-Wood Forest Products
MAP	Medical Aromatic Plants
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
USAID	United States Agency for International Development
EU	European Union
PPSE	Promoting Private Sector Employment
IADK	Initiative for Agricultural Development of Kosovo
CC	Collection Centres

1. INTRODUCTION

Agriculture is an important economic sector of Kosovo; it absorbs a large number of workforce in rural areas working in several agricultural subsectors. However, the farmers are small scale; farms are fragmented and production technologies are mainly traditional and outdated but the process of updating them is ongoing.

According to the Green Report 2020, Kosovo's total output for 2020 was € 735 Million or € 441 Million crop output and € 294 Million livestock output; this represent an increase of total output for 11%. About employment in agriculture, 12,468 people employed in 2020 by 2,405 registered and active agribusinesses[1].

The sector of Non-Wood Forest Products[2] (NWFP) and Medicinal and Aromatic Plants (MAP) is a sector that has been growing in last three years, in both terms of increasing volumes of products collected or cultivated. In 2018 total volume of products was 2,945 tons sold with exports of at value of € 5.05 Million; in 2018 total volume of products was 2,625 tons with exports of € 6.3 Million, while in 2019, the sector's volume of products were 2,997 tons with export at value of € 8.15 Million. It shows that the sector of NWFP and MAP is a sector export focused with positive trend that contributed to improve Kosovo's negative trade balance. The main reason for positive export trends of the sector are the increased demand for healthy products world-wide - majority of products have herbal origin; good quality of products offered on the market which also linked with implementation of quality and safety standards by majority of companies involved and good market linkages developed by the exporters. In addition, Kosovo has favourable agro-climatic conditions for both collection of NWFP and cultivation of MAPs and it is in vicinity with EU markets.

Despite great market potential, the sector struggles with common agricultural sector problems such as: fragmented land, use of outdated technologies, insufficient knowledge of relevant actors, lack of know-how on organic cultivation, low quality of inputs/seeds, high production costs, lack of quality management system of collection centres and lack of experienced extension services. Therefore, focus on improved quality and increased quantity presents a cluster opportunity for growth both in sales and employment.

Year 2020 due to COVID 19 pandemic was difficult for Kosovo and worldwide. Regarding NWFP and MAP sector, in the beginning due to restrictions of movement imposed by the Government of Kosovo brought instability and insecurity if the collectors could collect NWFP and farmers could cultivate MAPs; However, measures were eased later on and all actors of the sector resumed their operations, therefore, the results by the end of 2020 were positive.

2. BACKGROUD

ORGANIKA association has been conducting studies of NWFP and MAP sector since 2017. The main objective of the study is to present data of the sector collected from the members of association and non-members with the same methodology and repeatedly (every year) and to share findings of the study with all actors of the agricultural sector including the Ministry of Agriculture, Forestry and Rural Development (MAFRD), donors and other relevant institutions. The report became an information / reference tool for the actors of the sector as well as for other institutions and donors to prepare strategies and development programs.

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[1] MAFRD, Green Report 2020, pg. 55

[2] MAFRD's Administrative instruction nr.04/2008 - Non-wood forest products are considered medicinal and aromatic plants found free in nature, forestry fruits, feeding stuff (mushrooms, nuts, herbs), extracts, liquids and distillates (resins, colors, essences) products of the fiber (osier, bamboo, rotan, etc.), products from animals and insects (meat, skin, bark, honey, etc.) and inert (sand, gravel, stone).

The report for year 2020, ORGANIKA has prepared with support of German Government through GIZ's project "Creating Employment through Export Promotion".

3. DEVELOPMENT OF NWFP AND MAP SECTOR

The sector was re-established after the armed conflict during 1998 - 1999 by the initiatives of private companies involved with the collection of wild mushrooms with the support of several donors' /development projects. Later on, the range of products expanded and new companies started to get involved in the sector bringing innovations and targeting export markets; new companies initiated the cultivation of MAP, for what there was no tradition in Kosovo.

The support of donors/development projects has been followed by MAFRD; firstly, by the provision of grants for investments in physical assets for companies involved in NWFP through Rural Development Program[3] since 2014 as part of Measure 302 – "Farm diversification and business development", under measure 302.2 - Processing of aromatic medicinal plants, forest fruits and collected mushrooms. Secondly, the support was provided through the Program of direct payments[4] since 2016 for organically certified MAPs, and the eligible farmers could get subsidies in amount of 200€/ha and in 2018 the subsidy reached 500€/ha[5].

The new development for the sector was the establishment of ORGANIKA association in 2013, by the leading companies of the sector of NWFPs and MAPs as a platform for the development of the sector through improving cooperation among stakeholders of the sector; promoting Kosovo's products in foreign export markets, and through lobbying activities[6].

ORGANIKA has over 40 members divided in golden members, silver members and the members. It has been supported by donors' / development projects in the recent years. Its main supporting donor projects are:

- GIZ CETEP project (Creating Employment Through Export Promotion);
- Caritas CH project SIRED (Sustainable and Inclusive Rural Economic Development);
- Swiss Contact project PPSE (Promoting Private Sector Employment);

The above-mentioned projects provided support to the association for:

- Strengthening and developing of ORGANIKA association,
- Serving its members through the creation of partnerships with the government and developing future strategies;
- Attending various international fairs and sales missions;
- Training members about the organic MAP cultivation sector;
- Printing brochures about organic MAP cultivation in Kosovo;
- Obtaining organic certification of its members;
- Supporting ORGANIKA with work force development and office establishment.

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[3] MAFRD, Program of Rural Development 2020, http://www.azhb-ks.net/repository/docs/2020_07_21_143631_Programi_per_Zhvillim_Rural_2020-21.pdf

[4] http://www.azhb-ks.net/repository/docs/2016_03_04_133657_Udhezues_per_aplikues_-_Masa_302.pdf

[5] MAFRD, Program of Direct Payments 2020, Retrieved from http://www.azhb-ks.net/repository/docs/2020_07_21_143701_Programi_per_Pagesa_Direkte_pervitin_2020.pdf

[6] Retrieved from https://organika-ks.org/en/about-us/

4. SURVEY RESULTS

4.1 Methodology

This report provides an overview of the NWFPs and MAPs sector for year 2020 including employment, processing capacities, collection of NWFP and cultivation of MAP, contracts signed, sales, investment as well as plans for the next 3 – 5 years.

This report mainly utilizes data from primary sources. Initially, a questionnaire (Annex 1) was prepared by ORGANIKA's staff, in consultation with the CETEP staff members for interviewing private companies involved in the sector. 44 companies/operators were interviewed by ORGANIKA using the questionnaire. Data collected were processed using Excel spread sheets. In addition, to compare and confirm the data collected from the private sector, the secondary data were used including documents, reports and studies of Statistical Office of Kosovo, Ministry of Agriculture, Forestry and Rural Development, Kosovo Customs and donor projects PPSE, GIZ CETEP project, USAID.

Interviewed private companies / operators include collection centres, processors and exporters dealing with both NWFP and MAPs; they represent at least 80% of the total number of companies operating in this sector (excluding collectors and farmers).

Compared to the report of 2019, 8 additional companies were interviewed, mainly companies that joined ORGANIKA in 2020 as the new comers to the sector and five small-scale operators terminated their membership.

Some of the ORGANIKA members also cultivate berries e.g. raspberries using the same processing capacities and human resources for collection, processing and trading of both NWFP/MAP, therefore, data was collected for berries also. However, berries are not part of the scope of this document; therefore, data collected will be provided in a separate section.

4.2 RESULTS

4.2.1 Employment in the NWFP&MAP sector

The NWFP and MAP sector employs a large number of people in collection of NWFP and cultivation of MAP; however, for the study were interviewed collection centres, processors and exporters, therefore, only number on people they employ directly is recorder and is presented in this section but not number of collectors and farmers that they contract.

Full time employment and seasonal provided by the interviewees are disaggregated by gender and age are presented on the table below:

Table 1: Employment structure in NWFP& MAP

Employment	Full time				Seasonal			
	Total	Women	Men	Minorities	Total	Women	Men	Minorities
2020	**301**	135	166	66	**1,064**	727	337	402
share ratio		45%	55%	22%		68%	32%	38%
Increase/decrease %	-13%	-8%	-16%	0%	-1%	5%	-11%	-4%
2019	**344**	146	198	66	**1,070**	693	377	417
share ratio		42%	58%	19%		65%	35%	39%
Increase/decrease %	9%	-7%	25%	16%	35%	32%	26%	54%
2018	**315**	157	158	57	**794**	526	268	271
share ratio		50%	50%	18%		66%	34%	34%

In year 2020, the NWFP&MAP sector employed a total of 301 full-time workers; out of which 135 or 45% were women. Seasonal workers in total were 1,064, including 727 women or 68% of the total number. Full-time employees in 2020 compared to 2019 dropped by 43 employees or 13%, while the number of seasonal workers dropped by 24 or 1%. The main reason for that is the pandemic COVID 19; out 44 interviewed companies 19 stated that pandemic had a negative impact on employment;

however, they were not asked specifically for how many employees they had to dismiss. In regard to gender, the data show that number of women employed is high and they dominate the workforce among seasonal workers.

Disaggregating the employees by age, the young employees 18 – 30 dominate the employment. Out of total employees, both full time and seasonal, 1,365, 739 or 54% were young, 393 or 36% were at age between 31 – 44 and only 147 or 9% were between 45 – 65. These figures represent also the population of Kosovo that is dominated by youth.

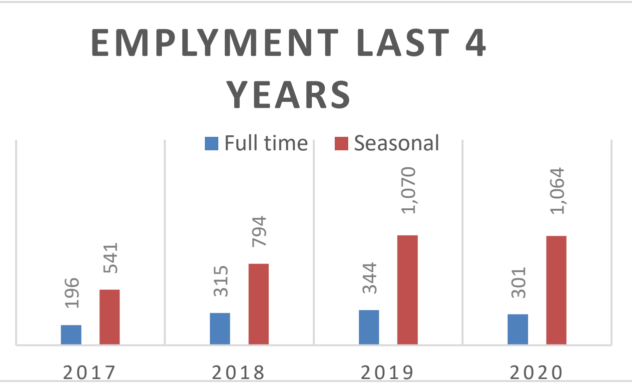
Table 2: Age of employees 2020

Age of employees	Full-time	Sezonal	Total	
Young (18-30)	147	592	739	54%
30 - 44	86	393	479	36%
45 - 65	68	79	147	9%
		Total	1,365	100%

Comparing employment over four years (2017 – 2020), the employment, both full-time and seasonal, constantly has increased following the development of the sector, however, in 2020 the number decreased in both full-time for 15% and seasonal for 3%.

Table 3 – Employment on NWFP&MAP subsector through years (2017-2020)

Year	Full time		Seasonal	
	#	difference	#	difference
2020	301	-13%	1,064	-1%
2019	344	9%	1,070	35%
2018	315	61%	794	47%
2017	196		541	

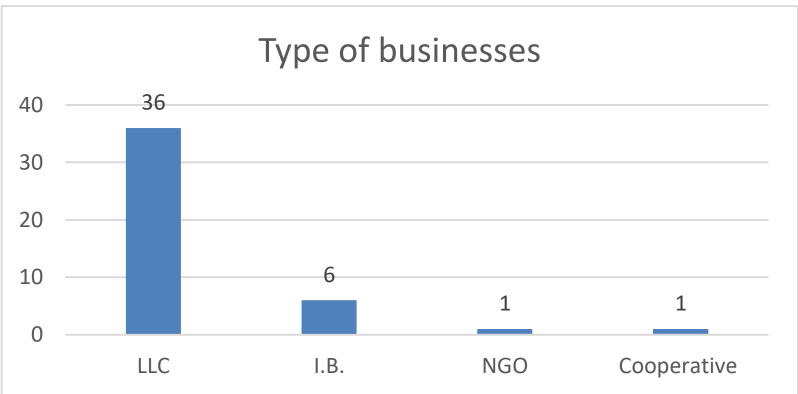


The sector is constantly growing and it has shown to be a promising sector, even though the employment had a slight decrease in 2020, in the following years it is expected that employment will increase steadily.

4.2.2 The structure of businesses

The main type of businesses involved in the sector is Limited Liability Company - LLC. Out of 44 interviewed companies, 36 are LLC, 6 as individual business and 1 agriculture cooperative and 1 women NGO. Initially most of the companies were registered as individual businesses, however, due to the better business funding possibilities mainly grants from donors, most of the companies have switched their statute to LLC and all new businesses were registered as a LLC.

Figure 2. Type of businesses registered



4.2.3. Food quality and safety standards

Quality and safety standards are important for the NWFP and MAP sector as the main targeted market is export. Following the demand of the buyers in export markets, the organic standard is the most implemented standard among the interviewed companies; out 44 interviewees, 39 companies were certified with organic standards. Two companies were certified additionally with BioSuisse and one NOP, standards that are similar to organic but are required for selling organic products in Switzerland and USA. Regarding other standards, 1 company is certified with IFS (the highest quality standard), 5 companies with ISO 22,000 and 1 company with UTZ (social aspects). For standards for the production, 1 company is certified with Integrated production for cultivation of berries and 3 companies with GlobalGAP.

The implementation of standards developed internal capacities of the companies to produce higher quality products, subsequently, sales at export markets have increased continuously. The following table presents the number of companies certified with different standards.

Table 4 – Number companies implementing standards

Standard	# companies certified		Standard	# companies certified
Organic	39		IFS	1
BioSuisse	2		UTZ	1
NOP	1		Global GAP	3
HAACP	1		IP	1
ISO 22.000	5			

4.2.4. Processing capacities

The processing capacities of actors of the sector are important in order to produce products that meet quality requirements of the buyers. By investing in processing capacities, the sector has been increasing volumes and quality of products exported; more importantly, selling prices were higher and the satisfaction of buyers was higher.

Dryers

Drying is the most important activity of the processing process for the NWFP and MAP due to fact the products should be dried as soon as possible after harvest in order to preserve the quality. Dryers have shown to be, also, the most important tool to initiate aggregation of NWFP and MAPs in a certain area; operators (e.g. collection centres) involved need a drier, also, to convince a buyer (e.g. exporter) that they supply good quality products. Following this logic, international development agencies and MAFRD have provided financial support to businesses to install driers. During the last 2 – 3 years, on the forefront for this was IADK with financial support of GIZ CETEP project.

In 2020, the surface of dryers has increased in to total 2,640 m2 or 38% more compared to the surface in 2019.

Table 5: Processing capacities - dryers

Years	Surface m2	Capacity tons/24 hours	Used Capacity days/year
2020	2,640	143	108
Increase/decrease %	38%	63%	-8%
2019	1,920	88	117
Increase/decrease %	39%	22%	6%
2018	1,381	72	110
2017	1,448		

In 2020, out of 44 interviewed companies, 38 have at least a dryer and 6 of them don't – 4 companies do either the final packaging of tea bags or produce pumpkin seeds, thus they don't need one; while, 2 others started the cultivation of MAPs just in 2020. The total surface of dryers was 2,640 m2, compared to 2019 there is an increase of drying surface by 720m^2 or for 38%. The daily capacity of all dryers was 143 tons/day; however, the daily capacity depends on the water content of products. Regarding the usage of the driers, the average use was 108 days/year (4,120 days/38 companies), however, nearly 50% of companies use dryers for larger number of products in duration of 180 – 200 days/years, but there are companies that use dryers only of one products in duration of 50 – 60 days/year.

Shock tunnels (blast freezers)

Out 44 companies, only 12 have reported possessing the shock tunnels (blast freezers). Those either are companies dealing with mushrooms or cultivated fruits. The total surface of shock tunnels (-40°C) installed is 454m2 with the capacity to process 70 tons of goods per day, but yearly usage is relatively low - only 120 days/year. Compared to 2019, there is an insignificant increase of area; however, company "Eurofruti" is in process of expanding further the area with both shook tunnels and storage for frozen products.

Table 6: Processing capacities - Shock Tunnel Capacities

Shock tunnel Capacities -40° C^o			
Years	Surface m²	Capacity tons/24 hours	Usage in days/year
2020	**454**	70.5	120
Increase/decrease %	1%	5%	
2019	**448**	67	
Increase/decrease %	6%	12%	
2018	**424**	60	
Increase/decrease %	92%		
2017	**221**		

Storage for frozen products

Similarly, as for shock tunnels (blast freezers), the storage capacities for frozen products has not changed significantly. The total surface with storage of frozen products in 2020 was 6,301 m^2, which represent only for 2% compared to 2019; however, the capacity declared has increased by 38%, but again it isn't linked with the surface but with the products that were stored during 2020 (different product were store compared with 2019). In addition, the number of days that storages were used has increased to 300 days/year – the main reason is that due to the pandemic situation, sales were slower than previous years. In total 15 companies have storage for frozen products; whereas, three companies that do not have shock tunnels have storage for frozen products (products freeze there).

Table 7: Processing capacities - Cooling freezer - 20 C^o

Years	Surface m²	Capacity tons/24 hours	Used Capacity days/year
2020	**6,301**	1,084	300
Increase/decrease %	2%	38%	54%
2019	**6,158**	788	195
	62%		
2018	**3,813**		
Increase/decrease	32%		
2017	**2,898**		

Processing facilities

The processing facility is the space where companies receive products, prepare products for drying and processing and finally packaging of products. Besides owning a dryer, having a facility / space for processing is key for having high product quality. In the last years, companies have invested considerably on processing facilities, firstly, to make the processing process easier and secondly, to ensure high product quality. Out of the total interviewed companies, 30 interviewees reported that own processing facilities; they, in 2020, have additional surface of 345 m2, a 2% increase compared to 2019. However, the daily capacities were increased by 25%, a percentage not necessarily linked with the increased surface, but it must be linked with other investment done e.g. better processing line resulting with increase of processing capacities. Regarding the average usage, the facilities were used 253 days during 2020 (number of days reported divided by the number of companies interviewed – 7,580 days/ 30 companies).

Table 8: Processing capacities - Processing Facilities

Years	Surface m²	Capacity tons/24 hours	Used Capacity days/year
2020	14,392	359	253
Increase/decrease %	2%	25%	83%
2019	14,047	287	138
Increase/decrease %	74%		
2018	8,090		
Increase/decrease %	30%		
2017	6,212		

Processing machines

This year the companies interviewed only on processing machines and not about machines for production process. The sector develops through investments done on machinery and processing lines for the value adding of the products. The machines that companies own are diverse, starting with cutting machines valued to approximately €500 up to advanced processing line with value of € 150,000. The interviewees based on the possession of the processing machines are grouped as follows:

1. Companies with no processing machines – 13 companies do not possess any of processing machines. These companies are mainly companies engaged in cultivation of MAPs that are either smaller companies that recently started with cultivation or those that are specialized only in cultivation of MAP;
2. Companies with basic processing machines – 16 companies mainly small-scale collection centres own machines for basic processing – cutting machines for slicing mushrooms and wild apples;
3. Companies with processing lines - 12 companies own several processing machines including cutting machines e.g. for mushrooms, wild apples as well as machines for cleaning (air blowers and inspection belts) wild fruits e.g. bilberries and juniper berries;
4. Companies with advanced processing lines - in this group there are three companies; Agroproduct.shpk and ADE Group.shpk have advanced processing line for leafy products having as output herbal leaves in several fractions. While, Eurofruti.shpk have a laser line for cleaning of frozen products.

These groups also represent the ways that companies within the sector have been developing; they start with no machines and as they grow in production, they invest more on machinery to add value to products.

4.2.5. Collection of NWFP

The volume of collected of NWFP in 2020 was 3,074 tons of 29 different species of NWFP, the highest volume in last 4 years or 40% more comparing to 2019. The main change between 2020 and 2019 is the increase of collection of mushrooms; while 2019 were collected 260 tons of mushrooms in 2020 were collected 1,120. The main reason for it was that during 2020 weather conditions for mushrooms were suitable and mushrooms were harvested for a long period of time (even in late autumn).

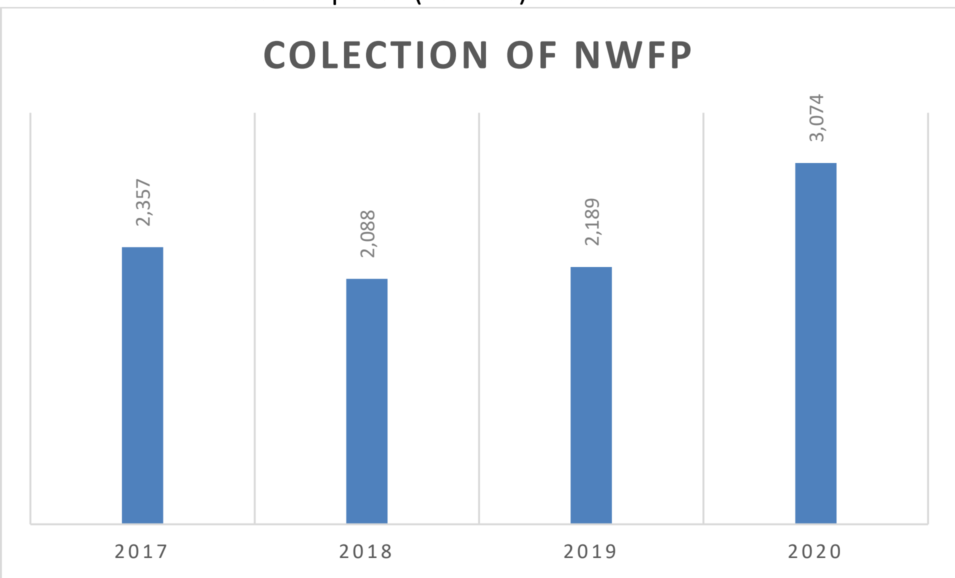
Table 9: Quantity Collected of the NWFPs in 2020

#	NWFP	Tons	#	NWFP	Tons
1	Mushrooms	1,120.50	16	Silver Birch	10.00
2	Juniper Berries	658.00	17	Wormwood	7.00
3	Blueberries	528.30	18	Linden	4.55
4	Blackberries	245.00	19	Hawthorn fruits	4.00
5	Rosehips	130.65	20	Breckland thyme	3.60
6	Wild apples	129.50	21	St. Johns worth	3.50
7	Elder	44.60	22	Hawthorn flowers	2.15
8	Raspberry leaves	39.22	23	Field Horsetail	2.00
9	Wild Strawberries	29.00	24	Dandelion	1.70
10	Nettle	26.20	25	Wild Thyme	1.00
11	Cowslips	24.57	26	Common lady's mantle	1.00
12	Wild garlic	21.00	27	Mountain tea	0.80
13	Cornelian Cherry	20.00	28	Shepherd's Purse	0.30
14	Yarrow	14.60	29	Red linden	0.14
15	Blackberry leaves	12.06		Total	3,074

During 2020, 29 NWFP species were collected comparing to 22 species during 2019. During this year both number of species is higher by seven additional species and volume is higher for 885 tons.

The collection NWFP has been continuously increasing since the first report in 2017. The volume of products collected in 2020 compared to 2019 is higher. The main reasons for it are (1) increased availability on mushrooms in nature and due to pandemic COVID 19 restrictions on movement were imposed, subsequently; (2) people in rural areas spent much more time collection of NWFP than previously.

Figure 3: Collection of NWFPs over the period (2017-20) in tons



Comparing top ten products of 2020 with top ten product of 2019, could be seen that 5 top products are the same with difference in volume of mushrooms was increased for almost 5 times. Surprisingly, in 2020 cowslip as a very important crop with high price dropped from top ten crops, instead, raspberry leaves and nettle are among top ten products. Again, this year top ten product make 96% of overall volume showing that these are the main products of the NWFP sector.

Table 10 – Top 10 NWFP species

Main type of the Collected NWFPs 2020			Main type of the Collected NWFPs 2019		
No	NWFP	MT	No	NWFP	MT
1	Mushrooms	1,120	1	Bilberries	596
2	Juniper Berries	658	2	Juniper Berries	460
3	Bilberries	528	3	Blackberries	317
4	Blackberries	245	4	Mushrooms	260
5	Rosehips	130	5	Rosehips	215
6	Wild apples	129	6	Wild apples	116
7	Elder	44	7	Elder	62
8	Raspberry leaves	39	8	Light blue garlic	56
9	Wild Strawberries	29	9	Cowslip	32
10	Nettle	26	10	Wild Strawberries	22
	Top 10 NWFP	2,951		Top 10 NWFP	2,133
	Total 2020	3,074		Total 2020	2,189
	% 10 NWFP	95.99		% 10 NWFP	97.46

The total amount of NWFP collected in 2020 was reported to be 3,074 tons, resulting in a total of 4,088 contracts including 209 contracts with collection centres, 1,894 contracts with farmers and 1,985 verbal agreements. If only farmers are taken in account, there were 3,879 harvesters or families (because contract is signed with a family member); multiplied with 4 members on average – in collection of NWFP in 2020 were involved over 15,000 people.

Table 11: Collection of NWFPs and Contracting

Type of contract	2018		2019		2020	
	No. of Contracts	%	No. of Contracts	%	No. of Contracts	%
Collection Centres	235	8	133	3	209	5
Farmers with contracts	1,077	37	1,624	36	1,894	46
Farmers without contracts	1,584	55	2,773	61	1,985	49
Total	**2,896**	**100**	**4,530**	**100**	**4,088**	**100**

4.2.6. Cultivation of MAP

Cultivated MAPs have further expanded during 2020. In total 570 ha with MAPs (excluding seeds) have been cultivated producing over 600 tons of products, out of which 98% organically certified. Besides herbs, vegetables, such as leeks, were cultivated, too. In addition, 1,036 Ha were planted with pumpkin and sunflower producing over 170 tons of seeds, out of which 30% organic certified.

There are positive trends in all figures related to MAPs. The main reason is that actors of value chain are working/communicating together towards expansion of cultivation (collaboration has improved) as well as the support provided by many actors including IADK/GIZ CETEP project and MAFRD through USAID's AGRO project for expansion of the cultivation of MAPs. These activities became interesting especially among the women in rural areas and in areas where farmers have difficulties to sell other agriculture products and they switch to MAPs as production is contracted and sales are secured.

Table 12. MAP cultivation

	MAP	(Ha)	QTY produced (ton)
1	Chamomile	308.00	125.70
2	Leeks	39.72	170.30
3	Nettle	38.40	67.00
4	Menthe	38.17	82.96
5	Cornflower blue	31.23	24.01
6	Calendula	18.88	45.17
7	Sunflower	16.10	5.73
8	Oregano white	13.70	14.80
9	Oregano heraclecticum	13.65	25.32
10	Mallow	11.79	11.35
11	Melisa	11.55	8.31
12	Sage	6.70	15.60
13	Fennel	5.00	2.00
14	Elder	4.00	4.00
15	Primula	3.00	0.50
16	Other	9.72	9.61
Total		570	612
Organic			599
Conventional			11
# of contracted farmers			329
# of farmers with no contract			2
	Seeds	(Ha)	QTY produced (ton)
1	Pumpkin Seeds	922	160.60
2	Sunflower seeds	114	10.00
		1,036	170

Table 13: MAP Cultivation – Summary figures

MAP Cultivation (excluding seeds) – Summary figures	
Years	Surface (Ha)
2020	570
Increase %	51%
2019	378
Increase %	1%
2018	373
Increase %	44%
2017	259

As could be seen from the table above the positive trend of expanding cultivation pf MAPs is continuing; however, it is important to state that besides 44 interviewees, there are some other small-scale farmers involved in cultivation of MAPs but their production is insignificant, however, they expect to grow and it a sign that cultivation of MAPs will continue to grow further in future.

4.2.7. Cultivated berries managed through value chain of NWFP and MAP

As already explained in the methodology section, data gathered on cultivated berries are part of this report only because a few NWFP&MAP stakeholders use the same processing capacities and human resources for berry cultivation, processing and trading. Out of the 44 interviewees, six of them are heavily involved on value chains of cultivated berries. The total surface and the number of cultivated berries managed through the value chain of the NWFP& MAP is 239 ha with production of 1,350 tons; total exports of berries were €2.75 Million.

Table 14: Export of cultivated berries

	Fruits	(Ha)	QTY produced (ton)	Exports (€)
1	Raspberries	200.1	1,082.0	2,548,020
2	Strawberries	23.5	90.0	162,000
3	Chokeberries	6.2	10.4	
4	Blueberries	4.5	0.5	
5	Blackberries	4.3	26.0	28,000
6	Quince	0.5	3.0	11,000
		239.1	1,349.9	2,749,020

4.2.8. Sales

The most important indicator of the situation of the sector for a year are sales of the products both exports and sales in domestic market. It also presents the sector's contribution to the overall country's trade balance and participation in total export sales. The total sales of NWFP and MAP sector for 2020 were € 12.5 Million

Table 15: Total sales NWFP & MAP in 2020

Total sales NWFP & MAP		
	Sales (€)	Percentage
Total	**€ 12,560,933**	**100**
Export	€11,845,933	94
Local market	€ 715,000	6

Sales of the NWFP and MAP sector have been increasing continuously, with exports taking over 90% of the total sales. Sales in 2020 increased by 48% compared to 2019 from € 8.5 Million to € 12.5 Million. Sales of the last four years presented below:

Table 16: Total sales NWFP & MAP during 2017 - 2020

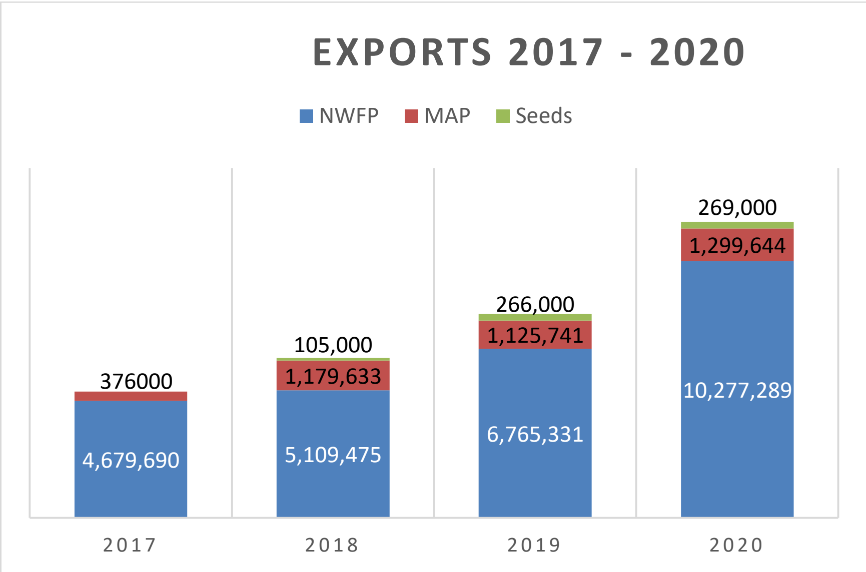
Year	Exports	Domestic Sales	Total Sales	Increase
2020	11,845,933	715,000	12,560,933	48%
2019	8,157,072	336,711	8,493,783	21%
2018	6,394,108	638,650	7,032,758	14%
2017	5,810,890	335,000	6,145,890	

On export sales, NWFP take the main share; in 2020, 87% of the total sales were from NWFP, 11% MAPs and only 2% of sales came from seeds. This shows that NWFP are by far the more important than MAP; main reason for it is the availability of NWFP in Kosovo Mountains, tradition of collectors in rural areas as well as good linkages of exporters with buyers in export countries. On other hand, cultivation of MAPs is an agriculture activity, therefore, Kosovo as a small country cannot compete with large countries.

Table 17: Export of NWFP and MAP 2017 – 2020

Year	NWFP	MAP	Seeds	Total
2020	10,277,289	1,299,644	269,000	11,845,933
	87%	11%	2%	
2019	6,765,331	1,125,741	266,000	8,157,072
	83%	14%	3%	
2018	5,109,475	1,179,633	105,000	6,394,108
	80%	18%	2%	
2017	4,679,690	376,000		5,055,690
	93%	7%	0%	

Figure 4: Export of NWFP and MAP 2017 - 2020



Five leading NWFP in export sales are: mushrooms with € 3.73 Million, juniper berry 1.42 Million, bilberries with 1.17 Million, elder with € 1.02 Million and cowslip with €0.90 Million While, for MAP top five products were leeks, mallow, nettle, cornflower and chamomile.

Table 18: Top 5 NWFP and MAP

NWFP			MAP		
	Product	Value (€)		Product	Value (€)
1	Mushrooms	3,734,700	1	Leeks	316,472
2	Juniper berry	1,422,800	2	Mallow	328,350
3	Bilberries	1,168,650	3	Nettle	151,702
4	Elder	1,017,898	4	Cornflower	163,960
5	Cowslip	905,199	5	Chamomile	62,750

4.2.9. Current and Future Investments

Besides the increase in collection, cultivation and sales, the NWFP and MAP sector is known as sector with high investments. 44 interviewees have reported to invest nearly €2.5 Million during 2020 with highest share on investment by purchasing machinery. Again, machinery add value to products, improve quality based on requirements of buyers.

For investment in future 2021 – 2023, 44 interviewees reported that they are planning to invest nearly €5.0 Million, with €1.8 Million or 38% of investment planned for 'other investment' in majority investment on processing facilities.

Table 19: Investments in 2020 and plans for next three years (€)

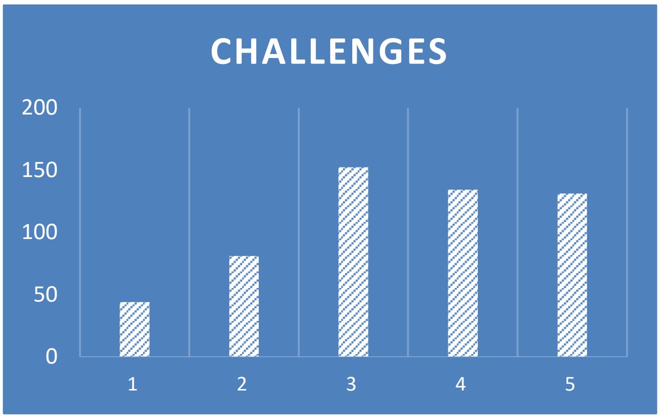
Year	Total investment	Dryers	Machinery	Staff qualification	Cooling and freezing space	Other investments
2020	**€ 2,412,450**	€ 624,000	€ 953,000	€ 35,200	€ 319,000	€ 481,250
	100%	26%	40%	1%	13%	20%
2021 – 2023	**€ 4,844,530**	€ 580,000	€ 1,713,030	€ 144,500	€ 582,000	€ 1,825,000
	100%	12%	35%	3%	12%	38%

4.2.10 Challenges of the sector

Interviewees were also asked about the main challenges they face in doing business in the sector. Five challenges were presented and the interviewees rate the challenge they face the most with five and the challenge that they face least with one.

Table 20: List of sector's challenges

	Challenge	Total
1	Insufficient supply with raw material	44
2	Difficulties with finding market	81
3	Lack of processing/storage capacities	152
4	lack of adequate/suitable technologies	134
5	Lack of organized marketing	131



The challenge that the companies face the most is "lack of processing and storage capacities", followed by "lack of adequate technologies". This is also in line with investments needed for machinery and advanced technology in order to add value to products, meet requirements of the buyers and increase exports, thus, increase turnover over and profits of the companies.

Conclusions

- Pandemic COVID 19 in the beginning due to restrictions of movement imposed by the Government brought instability and insecurity if the collectors could collect NWFP and farmers could cultivate MAPs; but later all actors of the sector found the ways to operate and results in end 2020 were positive;
- The total number of full-time employees in 2020 compared with 2019 dropped for 43 or 13%, while number of seasonal workers dropped by 24 or 1%;
- Out 44 interviewees 39 companies are certified with organic standard;
- Investing on processing capacities has been very important for the development of the value chain and increase of exports. Dryers are the most important processing capacity due to fact the both NWFP and MAP products should be dried as soon as possible after harvest in order to preserve the quality of the products. In line with this, last 2 – 3 years, several donors including GIZ CETEP project and MAFRD provided financial support for purchase of dries. In 2020, the surface of driers has increase in to total 2,640 m^2 or 38% more compared to the surface in 2019;
- Collection of NWFP in 2020 was 3,074 tonnes of 29 different, the highest volume in last 4 years or 40% more comparing to 2019. The main change in 2020 was increase of collection of mushrooms; while in 2019 were collected only 260 tonnes, in 2020 were collected 1,120 tonnes;

- Cultivation of MAP was done in 570 ha (excluding seeds) producing over 600 tons of products 98% organic certified; besides herbs there were vegetables e.g. leeks. In addition, 1,036 Ha were planted with pumpkin and sunflower seeds producing over 170 tons of seeds, 30% organic certified;
- The total sales of NWFP and MAP sector for 2020 were € 12.5 Million; including exports at value of € 11.8 Million and sales in domestic market € 0.7 Million. The increase of sales in 2020 were increased for 48% compared to 2020 from € 8.5 Million to € 12.5 Million;
- Sales of the NWFP and MAP sector has been increasing consciously, with exports taking always over 90% of the sales. This sector has proven to be an important sector for increasing employment and income in rural areas;
- This sector has the potential to further improve Kosovo's negative trade balance and develop further agriculture activities in rural areas.

Recommendations:

- PPJD take over 90% of export share; Kosovo is rich (availability in mountains) with these products, subsequently, can compete always in export markets. However, MAFRD and all other actors should make more affords to develop further collection and processing of PPJD, both in increasing the volume and value addition of these products;
- PPJD and BMA sector is smaller than milk or fruit and vegetable sector, but it is entirely export focused and potential exist for further expansion, but on the "Agriculture and Rural Development Program" of the MAFRD is not considered as a sector (only for farm diversification) and support is very low. The sector should be considered as a sector and support should be increased;
- Organic certification has developed since 2017. 39 interviewees are certified; however, the capacities of smaller operators of collectors/farmers for organic certification process should be further improved and other ways of certification e.g. group certification should be developed in order to convince buyers that actors of the sector are working for further improve quality of products. For this the support of donors and MAFRD should be continued.

References:

1. Green Report, MAFRD, 2020
2. MAFRD, Program of Direct Payments 2020, Retrieved from https://www.mbpzhr-ks.net/repository/docs/495_Programi_per_Pagesa_Direkte_per_vitin_2018_21.pdf
3. ORGANIKA, about, Retrieved from https://organika-ks.org/en/about-us/
4. Sector reports for 2017, 2018 and 2020
5. Guidelines for grant applicants - IPA Agriculture and Rural Development Support Grant Scheme 2015

ANNEX 1: QUESTIONER FOR 2020

Questionnaire for the basic analysis of the sector NWFP's and cultivated MAPs	
1. General Information	
Company:	
E-mail:	
Contact Person:	
Phone:	
Year of establishment of the company:	
Legal status:	

2. Number of Employees 2020

Total number of employees

Full time	Wo men	Men	Young 18-30	30 - 44	45 - 65	Minorities
Number						
Seasonal	Wo men	Men	Young 18-30	30 - 44	45 - 65	Minorities
Number						

Number specific number of workers working with raspberries

Full time	Wo men	Men	Young 18-30	30 - 44	45 - 65	Minorities
Number						
Seasonal	Wo men	Men	Young 18-30	30 - 44	45 - 65	Minorities
Number						

Number specific number repatriated employees

Full time	Wo men	Men	Young 18-30	30 - 44	45 - 65	Minorities
Number						
Seasonal	Wo men	Men	Young 18-30	30 - 44	45 - 65	Minorities
Number						

3. International standards by which your company is certified 2020

Standard	Certified year	Certificate validity up to / month / year
Organic		
HAACP		
ISO 22.000		
IFS		
BioSuisse		
Other		

4. Current processing capacities - 2020

Dryer:	Surface (m2)	Capacity (tons/24 hours)	Yearly Capacity (day/year)
Shock Tunnel (-40):	Surface (m2)	Capacity (tons/24 hours)	Yearly Capacity (day /year)
Cooling storage (-20):	Surface (m2)	Capacity (tons/24 hours)	Yearly Capacity (day /year)
Processing facility:	Surface (m2)	Capacity (tons/24 hours)	Yearly Capacity (day /year)

Other processing capacities
Describe machines and other equipment

5. Current collection capacities for NWFP 2020

	Types of NWFP's	Quantity (Tons)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

5.1 Contracts with wild plant collectors of NWFP 2020

Supplier contract			
Number of contracts with CC		Quant. (tons)	
Number of contracts with Farmer		Quant. (tons)	
Number of farmers without contracts		Quant. (tons)	

Contracts with market (for exporters)

Number of contracts with buyers		Country		
		E.g. Italy		
QTY contracted (tons)				

Cultivation of MAPs and berries in 2020								
.	Types of MAP and berries	Total surface (Ha)	Areas owned by the enterprise	Number of contracts cultivating farmers		Quantity in tons	Organic tons	conventional tons
				With contract	Without Contracts			
				No.	No.			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
Do you need to increase the area for expansion of the above-mentioned plants Yes _____ No ________								
If yes please specify the crops and areas you want to expand								

Products	Surface (Ha)	Qty	Organic	Conventional

6. Total investment value of (Please enter an approximate value of the investment in euros) ________________________________

Investment value 2020 (Please enter an approximate investment value in euros)				
Dryers	Machinery	Qualification of staff	Cooling and freezing facilities	Other investments (specify in what)
€	€	€	€	€
Planned investments for the next three years 2021-2023 (Please enter an approximate investment value in euros)				
Dryers	Machinery	Qualification of staff	Cooling and freezing facilities	Other investments (specify in what)
€	€	€	€	€

7. Market 2020

Total sales value €		____________€
Total value of sales from Export €		__________________€
Total value of local sales €		__________________€
Export	%	
Local	%	
Organic	%	
Conventional	%	

<u>*Types of products and quantity exported*</u>

Products:	Quantity 2020 (tons)	Country	(EUR)	NWFP (write -x)	MAP (write -x)
Blueberry					
Mushrooms					
Cowslip's					
Juniper					
Elder					

<u>*Types of products and quantity sold in the Kosovo market*</u>.
Please specify buyers (traders, markets, final consumer, or other) 3 companies if there are sales

Products:	Quantity 2020 (ton)	EUR	The buyer	NWFP (write -x)	MAP (write -x)
Blueberry					
Mushrooms					
Cowslip's					
Juniper					
Elder					
Rosehips					
Nettle's					
Oregano					

8. Plan of growth of activities and potentials for the next five years? If yes, please provide additional information on how you plan to achieve these increases?	
Increasing the quantities of productivity	
Development of new products	
Penetration into New Markets	
Processing and increasing the value of products - production of final products for the market	
Promotion of your products at international fairs	

9. Your Export Expectations over the next 5 years	
	Percentage -%
1. Increase	
2. Discounts	
3. I do not expect change	

10. Specify your forecasts in% for the next 5 years that your company plans to focus on (based on market demands)	
Organic Products%	
Conventional products%	

11. Do you expect this increase in exports as a result? (circle all applicable options):	
1	Increasing demand for products in international markets
2	Better access to export markets
3	Productivity increase (e.g. through cultivation / production methods or more advanced machinery / equipment)
4	Improving the quality of products
5	Improving quality through product certification
6	Other (specify) ____

12. Challenges that your company faced 2019 – 2020 (evaluate 1-5 – 1 minor challenge up 5 major challenge)				
Insufficient supply with raw material	Difficulties with finding market	Lack of processing/storage capacities	lack of adequate/suitable technologies	Lack of organized marketing