ORGANIKA

Shoqata e Përpunuesve dhe Eksportuesve Kosovar të PPJD

Kosovo Asssociation of the Processors and Exporters of the NWFP

Assessment Report for Non-Wood Forest Product and Medicinal and Aromatic Plant Sector

Year 2019

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Disclaimer

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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
EUOK	European Union Office Kosovo
PPSE	Promoting Private Sector Employment
IADK	Initiative for Agricultural Development of Kosovo
CC	Collection Centres
IPA	Instrument Pre-Accession
NGO	Non-Government Organisation
IOM	International Organisation for Migration
UNDP	United Nations Development Programme
MT	Metric Tons
HACCP	Hazard Analysis Critical Control Points
IFS	International Featured Standard
ISO	International Organization for Standardization
Ha	Hectares

1. INTRODUCTION

The agriculture sector participates with 7.2% in the gross domestic product and employs 25% of workforce; therefore, it is a very important economic sector for the country [1]. Considering Kosovo's negative trade balance, Non-Wood Forest Products (NWFP) and Medicinal Aromatic Plants (MAP) is one of the most important subsectors of agriculture because of its high export potential and its adaptability to the climate conditions in Kosovo.

Non-wood forest products[2] are considered products found free in nature including medicinal and aromatic plants, forestry fruits, feeding stuff (mushrooms, nuts, herbs), extracts, liquids and distillates (resins, colours, essences) products of the fibre (osier, bamboo, rotan, etc.), products from animals and insects (meat, skin, bark, honey, etc.) and inert (sand, gravel, stone). While, Medicinal and Aromatic Plants are cultivated agriculture products. Even-though that these two groups of products are different in terms of sourcing, NWFP are collected in forests and forest lands and MAP are cultivated as other agriculture products, both groups of products are used, as indigents, by the three different industries – food, cosmetic and pharmaceutic industry.

Based on the assessment of the subsector conducted by GIZ (Birgitt Boor, Value Chain and Market for MAPs in Kosovo, 2019, Prishtina), EU represents the largest single commercial market for herbal medicine in the world, importing yearly 150,000 MT of medicinal plants as raw material in value of €425 Million. Germany is the largest market within EU, importing 65,000 MT per year in value of €201 Million[3]; Germany is also ranked globally in third place, both as importer and exporter, exporting products in value of €40 Billion per yearly as both medicinal and pharmaceutical products.

Kosovo has established very good market linkages with buyers in EU market; it is an unique opportunity to benefit from; other advantages of Kosovo are – it is in vicinity of EU markets, has ties with diaspora in respective countries and high potential in engaging youth in cultivation and collection of high-quality products.

Despite great market potential mentioned above, collection of NWFPs and cultivation of MAPs struggle with common agricultural sector problems such as: fragmented land, small parcels, crop rotation, lack of organic cultivation know-how, low quality of inputs/seeds, high production costs, weed management, quality management system of collection centres and lack of experienced extension services.

2. BACKGROUD

ORGANIKA has been conducting studies of the NWFP and MAP sector since 2017. The main objective of the study is to collect data about the sector mainly from the members in the same methodology and repeatedly (every year) and to present them to all actors in the agricultural sector including the Ministry of Agriculture, Forestry and Rural Development (MAFRD), donors and other relevant institutions. The study is aimed to become an information/reference tool for the preparation of strategies, development programs and policies as well as an instrument of the ORGANIKA to build trust of the members as their representative and trust of the institutions (e.g. MAFRD) as a reliable partner that provides valid information.

This year to conduct the study, ORGANIKA was supported by the Promoting Private Sector Employment (PPSE) project in Kosovo, financed by the Swiss Agency for Development and Cooperation (SDC), and implemented by a consortium of Swisscontact and Riinvest Institute.

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[1] MAFRD (2018), Green Report

[2] Administrative instruction nr. 04/2008, on the cultivation and utilisation of non-wood forestry products

[3] GIZ, Birgitt Boor, Value Chain and Market for MAPs in Kosovo, 2019, Prishtina

3. DEVELOPMENT OF NWFP AND MAP SECTOR

In the former Yugoslavia the collection of NWFP was mainly carried out through agricultural cooperatives. Kosovo was part of the supply chain selling products to larger companies in Serbia, Croatia and Slovenia, but these ties were cut during the 1998 – 99 war. In that period only the fresh NWFP were exported without any added value. Only in the beginning of 2000, initial linkages with international markets were established through Macedonia and Albania.

The sector was re-established by 2002 with support of donors such as Helvetas / Intercooperation, USAID, Care International, Swisscontact and GIZ. Support for the sector was followed by MAFRD through (1) Rural Development Program through Measure 302.2 – "Processing of aromatic medicinal plants, forest fruits and collected mushrooms" for investments in physical assets, and Program of direct payment subsidising organic certified MAPs initially 200 €/ha and since € 500/ha[4]. Other investment in this sector has been done through EUOK Grants scheme: IPA Agriculture and Rural Development Support Grant Scheme 2014 & 2015.

The sector of NWFPs and MAPs was further empowered with establishment of the ORGANIKA association, in 2013, by the leading companies. The main objectives of the association are to improve cooperation among stakeholders in this sector, promotion Kosovo products in foreign export markets and through lobbying activities[5]. Currently, it has 41 members.

ORGANIKA, has been supported by donors and development projects in the recent years. Its main supporting donor projects are:

- USAID's AGRO (Agricultural Development and Rural Opportunities)
- GIZ's project CETEP (Creating Employment Through Export Promotion)
- Swisscontact's project PPSE (Promoting Private Sector Employment)

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

- Strengthening and developing of ORGANIKA association through establishment office and building human capacities of the ORGANIKA;
- Visiting various international fairs and sales missions;
- Training of members on organic cultivation of MAP;
- Printing brochures about organic cultivation MAP;
- Organic certification of its members.

4. NWFP & MAP VALUE CHAIN

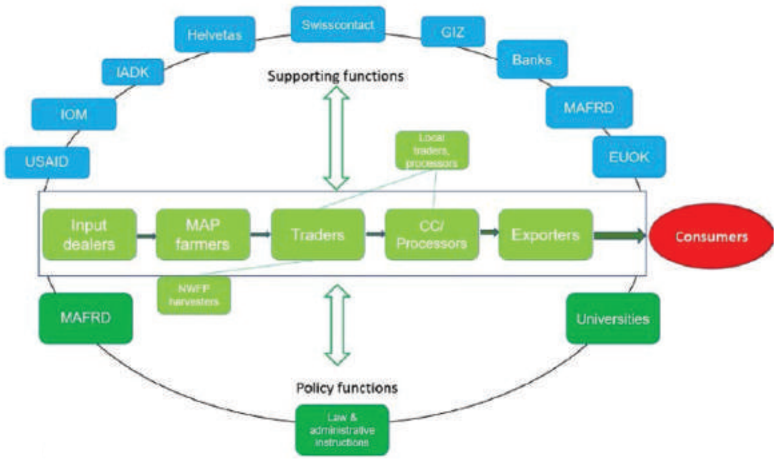
The main value chain stakeholders are input dealers, cultivation farmers of MAPs, collection centres of NWFPs and MAPs, processors and traders/exporters. Quite often, one certain stakeholder plays several roles within the value chain - being farmer, collection centre, processor, and/or exporter. In addition, some of exporters are also involved in other value chains e.g. raspberries with activities in collection, processing and exporting.

In the development of this value chain had influence numerous institutions including donors, banks, NGOs, MAFRD both in supporting functions e.g. certification scheme, and on the development of the legal base; it was created an enabling environment for further development of the value chain.

[4] 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

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

Figure 1 - NWFP and MAP Value Chain Mapp



5. SURVEY RESULTS

Methodology

This report provides an overview of the NWFPs and MAPs sector including production, collection and processing capacities as well as opportunities for growth and challenges. For the report information was collected through interviews of the companies (primary data). Initially a questionnaire (Annex 1) was designed by the consultant and the ORGANIKA's staff; while, for analysis and comparation secondary data were utilized including documents and studies of Statistical Office of Kosovo, Kosovo Customs and various reports of donors.

The information was collected through interviews done by ORGANIKA staff, with 41 responders including MAP farmers, collection centres, processors, local traders and exporters. The primary data were processed in Excel; a questionnaire using google form was produced and all collected data were inserted to the google forms, but results were not as was expected, google did not aggregated results of the questions for the interpretation – the questionnaire in google form should be reviewed next year.

The report provides information on the key topics associated with NWFPs and MAPs sector: employment structure, production and processing capacities (dryers shock tunnels, processing facility, cooling rooms), current and future investments, type and quantities of collected NWFPs, type, surface and quantity of cultivated MAPs, year of establishment of the companies, sales, exports, local sales, list of equipment's and key constraints faced in the sector.

Compared to 2018, in 2019 7 additional new stakeholders/companies were interviewed; all of them responded to the request for an interview. Due to fact that some of the companies are involved in berry sector, data were gathered on cultivated berries and will be provided in relevant sections.

The outcomes

5.2.1 Employment at the NWFP&MAP sector

Employment 344 full-time and 1,070 seasonal

The NWFP&MAP sector in 2019 employed a total of 344 full-time workers and 1,070 seasonal workers. 42% of the full-time employees and 65% of sezonal works were women; it is obvious that women employees dominate the sector's workforce.

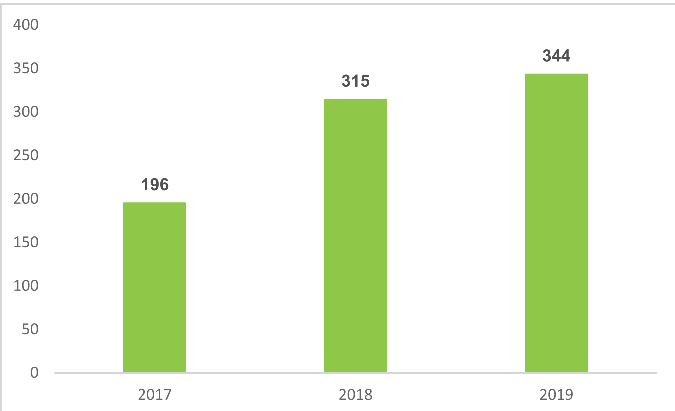
The following table will explain full-time employment, seasonal employees, women and youth.

Table 1: Employment structure in NWFP& MAP

	Full time					Seasonal				
	Total	Women	Man	Young (18-30)	Minorities	Total	Women	Man	Young (18-30)	Minorities
Employment 2019	344	146	198	179	66	1,070	693	377	539	417
share ratio		42%	58%	52%	19%		65%	35%	50%	39%
Employment 2018	315	157	158	149	57	794	526	300	445	271
Increase/ decrease (%)	8%	-8%	20%	17%	14%	26%	24%	20%	17%	35%

Comparing to employment figures obtained in 2019 with 2018, there is an increase by 8% increase among full-time employees (29 additional employees) and 26% increase in seasonal employees (276 additional employees). The main reason for that was that the quantity of NWFP collected and the area planted with MAP has increased. Another important observation is a significant increase in the number of minorities employed especially seasonal jobs from 271 jobs (2018) to 417 jobs in 2019, with an increase of 39%. Perhaps, the main reason for the increase in minority employment is that young Albanians have been emigrating to western Europe.

Figure 1 – Full-time employment on NWFP&MAP subsector through years (2017-2019)

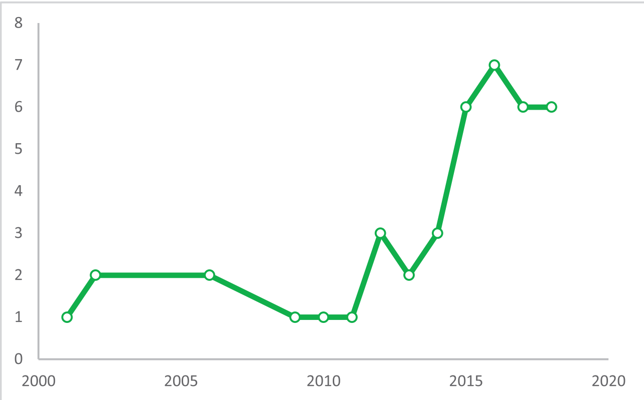


As seen in the graph above, the growth of full-time employees in 2019 was only 8%; if we compare it with the growth in 2018, which was quite significant growth by 61%, it seems that employment has reached its peak for the current development of the sector.

Based on data obtained from business registrations, last four years, trend of newly registered firms is a steady; there is a modest increase in the number of newcomers to the sector - between 3 and 4 new enterprises registered each year from 2015-2018 and during 2019 there are no new registrations. It seems that the sector in the form in which it has worked so far has reached its peak, the entry threshold in this sector is very high and there is an expansion of the capacities of existing companies and as well many companies have increased the diversification of their activities in this sector. From 2001 to 2013 there is a slow but steady growth of the sector, with strong support from donors, local and national institutions and great interest from businesspeople were manifested by an increase in businesses and the sector as whole.

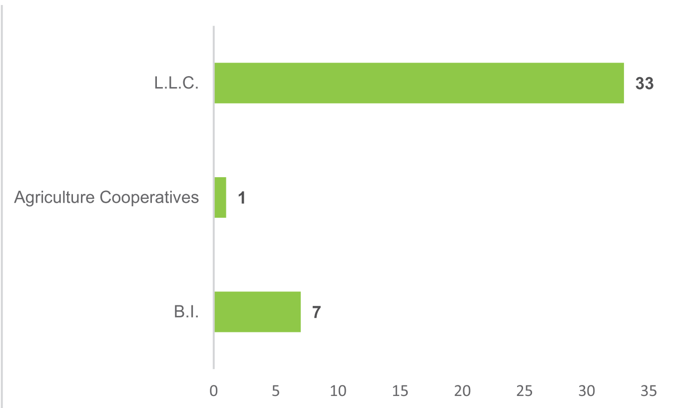
Increase of the surface of driers for 39%

Figure 2 – No. of registered NWFP&MAP companies through years



Registered businesses are registered in several legal forms for more see the figure below:

Figure 3 – Type of businesses registered



As can be seen, the Limited Liability Companies (L.L.C.) type dominates by 33, followed by 7 individual businesses (B.I.) and finally only 1 agriculture cooperative. The main reason for high number of L.L.C. is that the EU Office in Kosovo have been giving priority to these types of businesses and only them are considered eligible to access EU funds.

5.2.2. Processing capacities

Related to processing capacities, data were collected on installed capacities of dryers, shock tunnels (- 40 °C), storage of frozen products (- 20 °C) and processing facilities dedicated to NWFPs and MAPs.

Table 2: Dryers

Dryers				
Years	Surface (m^2)	Capacity (MT/24 hours)	Utilization (days/year)	Usage (% yearly)
2019	1,920	88	117	32
2018	1,381	72	110	19
2017	1,448			
Increase/decrease 2018/2019	39%	11%	6%	

In 2019, there is an increase of active surface by 539m2 on drying capacities or expressed in percentage, 39% increase compared to 2018. The total surface of dryers during 2019 is 1,920m2. The daily capacity of all dryers in the sector is 88 MT/day; compared with 2018 the daily capacity was 72 MT/day there is an increase by 8 MT; however, the yearly usage of dryer's capacities (117 days or 32%) is slightly higher - this is an indicator that more products have been processed during 2019. In total, from 41 respondents, 37 have at least one dryer.

Table 3: Processing capacities - Shock Tunnels

Shock tunnel Capacities -40° C				
Years	Surface (m^2)	Capacity (MT/24 hours)	Utilization (days/year)	Usage (% yearly)
2019	448	67	35	32
2018	424	60	32	28
2017	221			
Increase/decrease 2018/2019	6%	11%	8%	14%

The total surface of shock tunnels (-40°C) installed is 448m^2 with the capacity to process 67 MT of goods per day; however, yearly usage per day is relatively low, considering only 125 days for companies possessed. Around 2,500 MT of products were frozen through Shock tunnels in 2019; compared to 2018, there is a significant increase in the surface of the Shock Tunnels by 11%. In total from 41 respondents, only 12 of them have Shock Tunnels (-40°C).

Table 4: Processing capacities - Cooling freeze - 20 ºC

Cooling freeze - 20 ºC				
Years	Surface (m^2)	Capacity (MT/24 hours)	Utilization (days/year)	Usage (% yearly)
2019	6,518	788	195	54
2018	3,813	816		
2017	2,898			
Increase/decrease 2018/2019 (%)	42%	-3.5%		

There was a significant increase in the surface of storage of frozen products (-20°C). An additional surface of 2,705m^2 was installed in 2019, thereby representing an increase by 42% comparing to 2018. Daily capacity of storage (-20°C) is 788 MT. Used capacity days/yearly is 195 days and usage in % yearly is 54%. In total, from 41 respondents, only 14 have a storage freezer (-20°C).

Table 5: Processing capacities - Processing Facilities

Processing facilities				
Years	Surface (m^2)	Capacity (MT/24 hours)	Utilization (days/year)	Usage (% yearly)
2019	14,047	287	138	51
2018	8,090			
2017	6,212			
Increase/decrease % 2018/2019	42%			

There was a significant increase in the surface of processing facilities. An additional 5,957m^2 was installed in 2019, thereby representing a 42% increase compared to 2018. Daily capacity of processing facility is 287 MT. Used capacity days/yearly of the processing facilities is 138 days and usage are 51% yearly.

In addition, responders have provided information on other processing machines presented on the following table.

Table 6: Processing capacities - other processing machines

Overall cultivation equipment and other processing machines	No
Conveyor vibrating tape for berries	12
Metal Detector	10
NWFP and MAP grinder Equipment	9
Mushrooms grinder Equipment	9
Apple grinder Equipment	9
Blueberry and juniper cleaning machines	6
Packaging machine different sizes for different NWFP&MAP	6
Weight scale	5
MAP Collectors	7
Packaging of tea's, spices	4
Selective calibration processing line for MAP and NWFP	4
Select line of chamomile	3
Calibration machine	3
Line for Essential distillation	2
Juices production line	2
Berries Production Line (12 MT/24Hours, 250 MT/year)	1
Laser Fruit Selection Line (15 MT/24 Hours, 1000 MT/year)	1
MAP processing line	1
Elder processing machine	1
Small Gram Packing Line for berries (MT/1 hour)	1
Trucks	1

According to the table above, Conveyor vibrating tape for berries and metal detectors all along with 22 pieces, etc. However, a lot of data is missing regarding records of vehicles: van, trucks, etc. probably with hundreds of means of transportation.

In addition, information was collected on the equipment for cultivation of MAPs including machines for soils preparation as well as harvesting machines, bellow the list:

Table 7: Primary production machines

Tractor accompanied with equipment	21
Motor cultivator accompanied with equipment	5
Sowing machine	3
Balling machine	2
Different harvesting machine	2
Discs	2
Pumpkin picker equipment	1

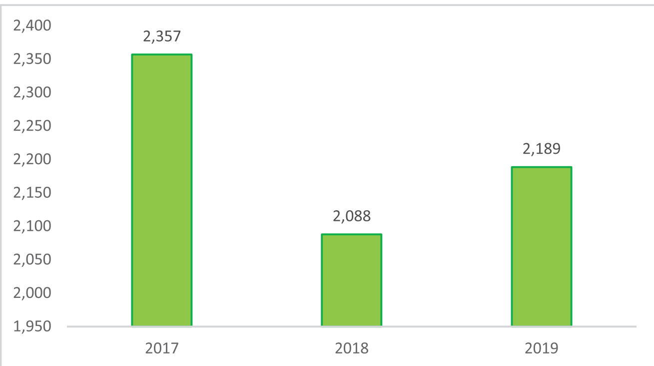
Certainly, in the future should be done an inventory of assets to processors in the NWFP and MPA sector. Here is a mix of machines and equipment including machines and equipment for primary production and for processing; however, equipment for the primary production are dominating.

At the section of listed problems, lack of dedicated mechanization for the cultivation of MAPs are addressed as a top problem for the sector; therefore, the 21 sets of tractors with supporting equipment do not represent adequate equipment for cultivation of MAPs, and thus specific equipment is needed for this sector. Many equipment's and machines can be used either from the primary production in Agriculture or can be rented.

5.2.3 Collection of NWFP

In 2019, the responders reported collection of 2,189 tons of 22 NWFPs. The overall quantity of collected NWFP has increased by 5% or 101 MT compared with 2018. The table below presents quantity of collected NWFP from year to year, although the number of collected products varies from year to year - the amount collected does not change much.

Figure 4: Collection of NWFPs over the period (2017-2019) in MT



The list of the products in 2019 is shorter than the list of 2018 and even shorter than 2017; in 2019, 22 products were collected, while, in 2018 there were 37 products. From a total 41 respondents, 23 were engaged in the collection of NWFPs, for more details the table below:

2,189 MT NWFPs were collected during 2019.

Table 8: Quantity Collected of the NWFPs in 2019

#	NWFP	MT	#	NWFP	MT
1	Blueberries	596	12	Fever grass	8
2	Juniper Berries	460	13	Nettle	6
3	Blackberries	317	14	Silver Birch	5
4	Fresh Mushrooms	260	15	St. Johns worth	5
5	Rosehips	215	16	Hawthorn	5
6	Wild apples	116	17	Wild Thyme	4
7	Elder	62	18	Field Horsetail	2
8	Light blue garlic	56	19	Linden	2
9	Cowslips	32	20	Shrub flowers	1
10	Wild Strawberries	22	21	Dandelion	1
11	Raspberry leaves	19	22	Plantain	0.2
				Total	**2,189**

The table below shows the 10 top NWFPs products during 2019 and 2018. Out of 10, 9 of them are the same. During 2019 there was increase of the collection light blue garlic which replace Linden that was in 2018 in top 10 products.

Table 9 – Main type of the collected NWFP's

Main type of the Collected NWFPs 2019			Main type of the Collected NWFPs 2018		
#	NWFP	MT	#	NWFP	MT
1	Blueberries	596	1	Blueberries	520
2	Juniper Berries	460	2	Juniper Berries	318
3	Blackberries	317	3	Fresh Mushrooms	266
4	Fresh Mushrooms	260	4	Blackberries	266
5	Rosehips	215	5	Wild Apples	265
6	Wild apples	116	6	Rosehips	148
7	Elder	62	7	Elder	69
8	Light blue garlic	56	8	Wild Strawberries	49
9	Cowslips	32	9	Cowslips	31
10	Wild Strawberries	22	10	Linden	27
	Top 10 NWFP	2,133		Top 10 NWFP	1,958
	Total 2019	2,189		Total 2018	2,088
	10 top NWFP (%)	97.46		10 top NWFP (%)	93.78

10 top NWFPs represent 97.46% of the total amount of NWFP 2019 collected; comparing with 93.78% that 10 top NWFP were collected during 2018. This shows that these are main products' because every year participate with over 90% of the total quantity.

Table 10: Collection of NWFPs and Contracting

	2018		2019		
Type of contract	**No. of Contracts**	**%**	**No. of Contracts**	**%**	**Increase/ Decrease (%)**
Collection Centers	235	8	133	3	-55
Collectors with contracts	1,077	37	1,624	36	40
Collectors without contracts	1,584	55	2,773	61	55
Total	2,896	100	4,530		

The total quantity 2,189 MT collected from 4,530 collectors. Out of total 1,624 contracts were signed between collectors and collection centres; additionally, 2,773 collectors supplied products without contracts. Collectors without contracts represent 61% of the overall number of collectors. One of reason is that number of exporters increased and some of them do not sing contracts with collectors. Contracted and non-contracted collectors usually sale products to sub-collection centres or directly to collection centres; there are no clear sales rules regarding the value chain.

5.2.4 Cultivation of MAP

The total area with cultivation MAPs in 2019 was 1,282 Ha and the total harvested quantity of was 808 MT. The surface compared with 862 ha in 2018 represents an increase for 420 hectares or 49%. While the quantity harvested compared with 537 MT in 2018 represents an increase for 271 MT of 50.5%. This is a significant increase; the main reason for it are support of the GiZ through IADK project and support of MAFRD through USAID's AGRO project.

Table 11: MAP Cultivation – Summary figures

	Surface (Ha)	Quantity (MT)	Number of farmers	Surface owned by company (Ha)	Organic (MT)
2019	1,282	808	855	758	637
2018	862	537	347	467	537
2017	250	208	355	229	186
Increase 2018/2019 (%)	49%	50.5%	146%	62%	19%

Most of the increase in hectares of cultivated MAPs resulted from increased surface cultivated by farmers, who decided to expand their own cultivation surface.

Regarding the individual MAP species, the most represented MAP species expressed in the surface is with pumpkin followed up by chamomile. The perennial MAP species such as oregano, menthe and especially nettle have followed with increase in area. In 2019, the total number of cultivated MAPs species was 27. For more see the table accompanied by graph.

Area under MAP cultivation has increased for 420 Ha or 49%

Table 12. MAP cultivation

MAP cultivation			
#	Type of MAP	Ha	MT
1	Pumpkin Seeds	904	124
2	Chamomile	133	34
3	Oregano	22	104
4	Green wheat	20	15
5	Mallow	13	9
6	Mentha	9	123
7	Leeks	9	146
8	Nettle	8	81
9	Cornflower	7	29
10	Calendula	6	11
11	Basil	5	8
12	Sunflower	2	4
13	Blackberry	1	10
14	Sage	1	10
15	Primula	1	0.05
16	Melisa	1	15
17	Other	141	86
	Total	**1,282**	**808**
	Organic	**1,260**	**703**
	Conventional	**22**	**105**

5.2.5 Cultivated berries managed through value chain actors of NWFP and MAP

As already explained in the methodology section, data gathered on cultivated berries are provided only because few NWFP&MAP stakeholders use the same capacities and human resources for activities with berries. Out of the 41 interviewed stakeholders, 8 of them are engaged on berries. In 2019, the total surface with berries was 386.3 ha and production were 1,855 MT. 91% of sales were raspberries, followed by blueberries and strawberries. These sales are only from members of the ORGANIKA association and do represent the whole berry sector.

Table 13: Cultivated berries

Export of cultivated berries			
Berries	Sales (€)	Quantity (MT)	Share (%)
Raspberry	3,233,000	1,687	91
Blackberry	50,000	98	5
Strawberry	72,000	70	4
Total	**3,355,000**	**1,855**	**100**

5.2.6 Sales of NWFP & MAP

Sales are the most important indicator of this sector because of its contribution to the overall country's trade balance and participation in export sales. In this section, the total sales of both local and export markets are presented.

Table 14: Total sales NWFP & MAP

Export	Sales (€)	Percentage %	Sales (MT)	Percentage
NWFP	€ 6,765,331	83	2,189	73
MAP	€ 1,391,741	17	808	27
Total	**€ 8,157,072**	**100**	**2,997**	**100**

There are 16 companies engaged in export sales of NWFP and MAP products, members of the ORGANIKA Association. The total export sales for 2019 are € 8.15M are sales from NWFP and MAP. The total quantity of goods sold in export ass 2,997 MT, 73% or 2,189 MT were NWFPs and 808 MT MAPs or 27%. There exists a large disproportion between NWFP and MAP export sales, and this is an indicator that there is an opportunity to further develop the MAP sector.

Total exports €8.15 mio. including €6.76mio. MWFP and €1.39 mio. MAP

Sales into local market has been taken into calculation only sales to for final customers sold mostly through supermarkets. Sales of the NWFP and MAP of collection centres to the processors/exporters has been not included to total sales, to avoid duplication.

Five leading NWFP in export sales are: blackberries with €0.51Milion, mushrooms with €0.48Milion, juniper 0.47Milion, cowslip 0.31Milion and wild garlic with €0.27Mmilio.

Table 15: Export sales of 5 top NWFP

Export sales of 5 top NWFP			
No	NWFP	Export in €	Country
1	Wild Blackberry	516,000	Serbia, Germany
2	Mushrooms	481,895	Germany, Austria
3	Juniper	471,100	Canada, Italy, Switzerland, Germany
4	Cowslip	310,000	Germany
5	Wild garlic	270,000	Switzerland

Blackberries are sold in Germany and Serbia, Mushrooms are sold in Germany and Austria, Juniper to Canada, Italy, Switzerland and Germany, Cowslip to Germany and Wild garlic to Switzerland.

Table 16: Export sales of 5 top MAP

Five leading MAP species in export sales are led by oregano.

Export sales of 5 top MAP by countries			
No	**MAP**	**Export (€)**	**Country**
1	Oregano	61,500	Switzerland & Germany
2	Mentha	34,665	Germany
3	Mallow	25,560	Germany
4	Basil	20,000	Germany
5	Cornflower	15,750	Germany

Oregano are sold in Switzerland & Germany, Mentha, Mallow, Basil and Cornflower in Germany as one of the biggest of the MAP's imports.

Table 17: Comparing exports between year 2019, 2018 and 2017

Comparing exports of NWFP&MAP between year 2019, 2018 and 2017 (€)	
2019	€ 8,157,072
2018	€ 6,394,108
2017	€ 5,810,890
Increase - 2019/2018 (%)	28%

Comparing export sales of 2019 with 2018, there was an increase in the overall export sales of €1,762,964 or 28% increase. Also, this significant increase is noticed starting from 2017 onwards.

5.2.7. Sales of NWFP and MAP to local Market

The total of sales to local market was reported €2,227,757. In this table below you can see that the biggest sells were taken to collection centres which usually buy products from collectors and after basic processing sell products to larger processors/exporters. Sales to collection centres was 85%, following with sales in markets, restaurants, etc. with 13% and finally the others only 2%. However, in order to avoid double counting because the processors/exporters products purchased from collection centres have reported as exports, sales of collection centres were excluded.

Table 18: Local market sales of NWFP and MAP

Local market sales of NWFP and MAP		
Local Market	**Sales in €**	**Percentage**
Leading collection center's	1,891,046	85%
Supermarkets/Final cons.	289,710	13%
Other's	47,001	2%
Total local sales	**€ 2,227,757**	

5.2.8. Sales as per product category

The structure of sold goods is dominated by semi-processed products 51% followed by raw materials 40%, while sales from final products remain low with only 9%.

Table 19: Sales of NWFP& MAP as per category of products

Sales of NWFP& MAP as per category of products		
Raw Material	Semi processed products	Final Product
40%	51%	9%

As you can see in the table above almost 91% of the exports are as raw material and semi processed and only 9% as final product. Based in these figures, there a is an opportunity for investments in further processing capacity to add value to products. Majority of sold products are organic, and this reflects the market demand trend as well if there are include only NWFP's and MAP.

5.2.9. Current, Future Investments and certification

The total investment in 2019 reported by the respondents was €2.64 Million, with the majority of investment being dedicated to business facilities, machinery, dryers, cooling, other investments, and freezing spaces and staff qualifications.

Table 20: Investments in 2019 (€)

Current Investment in 2019						
Total amount of investment in 2019	**Machinery**	**Business Facilities**	**Dryers**	**Staff qualification**	**Cooling and freezing space**	**Other investments**
€ 2,639,086	€ 878,847	€ 923,100	€ 287,800	€ 35,550	€ 117,650	€ 396,139
100%	33%	35%	11%	1%	4%	15%

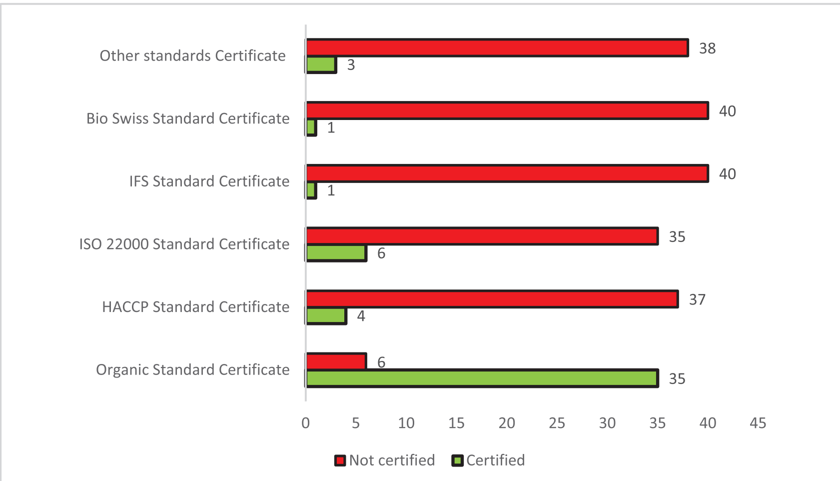
While regarding plans for investments in the years 2020-2022, it expected investments of €5.07 Million, with the majority of investment being dedicated to dryers, cooling and freezing spaces, business facilities, machinery, other investments, and staff qualifications. 5 out of 41 of the respondents didn't show any interest to invest. The percentage of future investments is hardly different from current investments. Cooling and freezing space and dryers with 22% followed by investments in Machinery leads with 21% etc.

Table 21: Future planned investments over the period 2020-22 (€)

Future planned investments 2020-2022						
Total future investments 2020-2022 (€)	Machinery (€)	Business Facilities (€)	Dryers (€)	Staff qualification (€)	Cooling and freezing space (€)	Other investments (€)
5,066,712	1,062,400	1,006,000	1,115,200	117,100	1,102,012	664,000
100%	21%	20%	22%	2%	22%	13%

In terms of certification to various standards, companies in the NWFP and MAP sector are not satisfactorily enough certified with standards required by the buyers in EU markets. For further increases of export capacities, the companies invest further in implementation of required quality and food safety standards. A positive exception is organic certification, out 41 respondents, 35 were certified with organic standard. Table below shows the certifications that respondents have; organic certificates is followed by HACCP and ISO 22000.

Figure 5: Certification type by standard



5.2.10 Plans for MAP cultivation

On question of the plans for further expansion of cultivation of MAPs, the responders reported the they plan to expand cultivation for over 550 Ha. 98% of it is planned to organic production and only 2% in the conventional. Two are the reasons for this - high demand for organic products and higher prices. The summary of plans for expansion of cultivation is helpful for all value chain stakeholders including MAFRD and donors.

Table 22: Plans for future cultivation of MAP

Plans for future cultivation of MAP						
Surface (Ha)	**Company land (ha)**	**Contracted farmer (ha)**	**Organic (Ha)**	**Conventional (Ha)**	**Organic %**	**Conventional %**
565.45	457.85	107.60	555.45	10	98	2

Regarding MAP species planned to be cultivated chamomile, sunflowers, oregano and pumpkins for seeds are top species. These species don't depend much on the labour input but more in machines e.g. for harvesting.

Table 24: top ten MAP species planned for further expansion

MAP species planned for future expansion				
MAP Specie	Surface Ha		**MAP Specie**	Surface Ha
Chamomile	196		**Mallow**	11
Pumpkin seeds	170		**Nettle**	17
Sunflower	50		**Leeks**	27
Oregano	32		**Cornflower**	20
Mentha	29		**Melisa**	2

5.2.11 List of Problems

In addition to the general questions about the sector, the respondents were also asked to list three issues that they considered the top problems of the sector. Their responses were listed in the following table according to the frequency of each mentioned problem.

Table 25: List of sector problems

No	List of sector problems	Frequency
1	Delay in payment	20
2	Lack of mechanization for MAP/land cultivation	18
3	Unqualified workforce	16
4	Old technology	13
5	Lack of workforce	12
6	High loan interest rates	12
7	Small surface of land	9
8	Lack of working capital- cash flow	8
9	Lack of water/irrigation system	6
10	Market	5
11	Lack of Qualitative seeds	3
12	Lack of knowledge of the Weed Management	3
13	Unfair competition	1
14	Small surface of shock tunnels	1
15	Limited support from government	1

The problems listed are grouped by similarity, so at the top list is the problems with finances - 'Delay in payment', 'Lack of working capital - cash flow' and 'High loan interest rates'. these problem are key to the companies because they have to have high amount of working capital due to high value of NWFP and MAP and timeframe from collection to the sales in export market it takes at least 6 months – e.g. to export a truck of mallow, exporter needs to have at least €100,000 working capital for six month for a single truck. In addition, all businesses have invested heavily, subsequently, they face problems with limited financial resources. Lack of working capital is an indicator that this sector needs dedicated financial products/services to address the overall complexity of lack of cash in the whole value chain. Financial solutions should be addressed the lack of cash flow related to the seasonality of crop cultivation/collection, processing, and sales/exports.

At the top list is, also, the problem of "Lack of proper mechanization for MAP cultivation" and "Old technology", these problems are main reasons why cultivation of MAPs is underdeveloped despite market opportunities to export in the EU markets. As third most-mentioned problem "Unqualified workforce", which can be categorized in the same category of problems that relate to "Lack of knowledge" and "Lack of workforce".

Small surface of land - this is a limiting factor for MAP spies like mallow, menthe, melissa, as well as for species that are produced in large areas like chamomile, pumpkins, sunflower.

Lack of water/irrigation system this is mayor problem in Kosovo, only 20,000 hectares in Kosovo are under irrigation and the cultivation of such value corps like MAP's has to be more regionalized based in the presence of water for irrigation, more near rivers, wells and irrigation public systems.

Market - is not rated high because the world market has a lot of demand for NWFP and MAP - Kosovar exporters are aware of this unlimited market opportunity and have already established trade links.

Lack of qualitative seeds is also listed in a relatively not high spot, there are many ways of MAP reproduction.

Unfair competition – is ranked very low taking into consideration that comparing to other sectors, NWFP and MAP is most organized sector contracts between parties as signed and in most of cases are honoured and on other hand organic standard has organisational and social requirements – it had a positive impact on organization of the value chain.

Small surface of shock tunnels and other hard investment responders didn't pay so much attention take into consideration that there are too many foreign donors and Government with support Grants Scheme.

The last one Limited support from government has been ranking very low take into consideration that Government gave huge support to this sector through grants, direct payments and legislation.

6. CONCLUSIONS

Export of NWFPs and MAPs in 2019 was € 8,15 Million. Even-more important, the sector has enormous potential for growth because Kosovo's companies have established market linkages with key EU markets (leading markets: Germany, Italy and Austria), representing 57.6% of total exports;

The increase of employment was low, only 8% increase among full-time employees (29 additional employees) and 28% increase among sezonal employees (276 additional employees);

There was an increase of drying capacities for a surface of 539 m^2, or an 39% increase compared to 2018;

There was a significant increase in the surface of storage freezers (-20°C). An additional 2,705m2 was installed in 2019, thereby representing a 42% increase when compared to 2018. This type of refrigeration chamber in needed to be increased further because in case the frozen products do not find a market they remain for a long time on storage;

This sector focuses completely in the export. The main destination of the exports were the EU countries: Germany, Italy, Czech Republic, Serbia, Switzerland Austria, Lithuania etc. It shows that there is still high demand for NWFP and MAP in world market;

This sector has the potential to improve Kosovo's trade imbalance and employ more people because of the key advantages in market linkages and right climate/environment for cultivation and collection of NWFPs & MAPs;

Ratio for investment by businesses still lowest investment in the staff investment €117,100 compare with hard investments;

Financial problems are top problem reported by the respondents. The sectors needs high working capital, but the companies have invested heavily in last years;

The established trust between ORGANIKA, the sector association and its stakeholders are promising, considering 7 additional respondents participating in this year assessment.

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Annex: 1 Assessment Questioner 2019

Questionnaire for the basic analysis of the sector NWFP's and cultivated MAPs				
1. General Information				
Company:				
E-mail:				
Role in the Value Chain:	Add ✓			
	CC for NWFP ☐	CC for MAP ☐	Processors☐	Processors/ exporters ☐
Contact Person:				
Phone:				
Year of establishment of the company:				
Legal status:				

2. Number of Employees 2019				
Total number of employees				
Full time	Women	Men	Young 18-30	Minorities
Number				
seasonal	Women	Men	Young 18-30	Minorities
Number				

3. International standards by which your company is certified 2019

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

4. Current processing capacities – 2019

Dryer:	Surface (m2)	Capacity (MT/24 hours)	Yearly Capacity (MT/year)	Level of utilization (%)
Shock Tunnel (-40):	Surface (m2)	Capacity (MT/24 hours)	Yearly Capacity (MT/year)	Level of utilization (%)
Cooling storage (-20):	Surface (m2)	Capacity (MT/24 hours)	Yearly Capacity (MT/year)	Level of utilization (%)
Processing facility:	Surface (m2)	Capacity (MT/24 hours)	Yearly Capacity (MT/year)	Level of utilization (%)

Other processing capacities

Describe machines and other equipment ______________________

5. Current collection capacities for NWFP 2019

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

5.1 Contracts with wild plant Collectors of NWFP 2019

Supplier contract

Number of contracts with CC		Quant. (MT)	
Number of contracts with Farmer		Quant. (MT)	
Number of farmers without contracts		Quant. (MT)	

6 Cultivation of MAP in 2019
information on MAP species and cultivators

.	Types of MAP	Total surface (Ha)	Quantity in MT	Number of contracts cultivating farmers		Areas owned by the enterprise	Organic kg	conventional kg
				With contract	Without Contracts			
				Nr.	Nr.			
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)	Contracted Y/N	Organic	Conventional

7 Total investment value of (Please enter an approximate value of the investment in €) ____					
Investment value 2019 (Please enter an approximate investment value in €)					
Business facilities (processing facilities)	Machinery	Dryers	Cooling and freezing facilities	Qualification of staff	Other investments (specify in what)
€	€	€	€	€	€
Planned investments for the next three years 2020-2022 (Please enter an approximate investment value in €)					
Business facilities (processing facilities)	Machinery	Dryers	Cooling and freezing facilities	Qualification of staff	Other investments (specify in what)
		€	€	€	€

8 Market 2019		
Total sales value €		___________€
Total value of sales from Export €		_______________€
Total value of local sales €		_______________€
Export	%	
Local	%	
Organic	%	
Conventional	%	

Types of products and quantity exported					
Products:	Quantity 2019 (MT)	Country	(€)	NWFP (write -x)	MAP (write -x)
Blueberry					
Mushrooms					
Cowslip's					
Juniper					
Elder					
Types of products and quantity sold in the Kosovo market. Please specify buyers (traders, markets, final consumer, or other) 3 companies if there are sales					
	Quantity 2019 (MT)	€	The buyer	NWFP (write -x)	MAP (write -x)
Blueberry					
Mushrooms					
Cowslip's					
Juniper					
Elder					
Rosehips					
Nettle's					
Oregano					

Forms of selling your enterprise products		
Raw material (%)	Semi-processed products (%)	Final products (%)

9. 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	

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

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

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) ____

11. List the three key issues you match		
1.	2.	3.

The association ORGANIKA represents the main operators of the sector of Non-wood Forest Products (NWFP) and Medicinal and Aromatic Plants (MAP) sector. The Association was established in 2013 aiming to improve the cooperation between the actors of the sector and the development of the sector through the promotion of local products in export markets, increasing the competitiveness of the sector through capacity building for the collection of NWFP, cultivation of MAP and processing and lobbying activities. One of the main goals is for all members of the association to be certified with the organic standard and exports to be all certified. Currently, the association has 39 members including the main operators of the sector.

ORGANIKA

Shoqata e Përpunuesve dhe Eksportuesve Kosovar të PPJD

Kosovo Asssociation of the Processors and Exporters of the NWFP