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REPUBLIKA E SHQIPËRISË
MINISTRIA E BUJQËSISË
DHE ZHVILLIMIT RURAL

REPUBLIKA E SHQIPËRISË
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MEDICINAL AND AROMATIC PLANTS SECTOR STUDY

This study report provides information and recomandations which can be useful to orient entry strategies for financial institutions or for the preparation of financial services

MEDICINAL AND AROMATIC PLANTS SECTOR STUDY

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TABELA E PËRMBAJTJES

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

Albania has a strong tradition in the production and export of Medicinal and Aromatic Plants (MAPs). MAPs have been and remain one of the main agrifood products for export purposes – currently being the second most important after vegetables. More than 95% of the total MAPs collected are exported. Albania is an international player ranked as among the top 16th world MAP exporters in early 2016. Albania is an important supplier of raw material or half-finished products for many EU and US industries in different sectors (food and beverage industry, healthcare, cosmetics and perfumes, additives etc.); almost 75% of sage imported by USA has been of Albanian origin.

Export of MAPs has increased significantly over the last years – it has doubled since 2010, reaching ca 30 million USD in 2016. The increase in export is triggered by a combination of growing supply (mainly through growth of cultivates MAPs) and increasing world market demand. Exports consist mainly of raw MAPs – only a small share of MAPs are processed into essential oils, while there has been no production of detergents, cosmetics or industrial medicines based on MAPs in Albania.

The objective of this study report is to provide an overview of the MAP sector in Albania, by analysing recent developments and the current state, including opportunities, constraints and challenges, with special focus on investments needs and potentials. This study report provides information and recommendations which can be useful to orient entry strategies for financial institutions or for the preparation of financial services. But potential users of the current study findings and recommendations can be also government institutions, business associations, development agencies, academia and other interested stakeholders.

This study is developed from the technical expertise and financing of the Albania Agribusiness Support Facility (AASF). AASF is a financing framework developed by EBRD in cooperation with and with support from the Government of Albania which started its activities in 2016. The objective of the facility is to motivate Albanian financial institutions to support agrifood sector. AASF provides access to finance for the agribusiness sector through senior loans and / or portfolio risk sharing to both MFIs and banks. The final beneficiaries of AASF are farmers and companies that are engaged in primary agriculture, agricultural equipment production and trade, logistics, agribusiness service providers, agricultural processing, wholesale as well as retail traders.

Both secondary and primary information/data sources have been used to meet the study objectives; semi-structured interviews with value chain actors and sector experts were used primary source of data. Data were analysed using various techniques including descriptive analysis, trend analysis, text analysis, SWOT analysis strategy. The combination of qualitative and quantitative analysis has been crucial to identify/understand trends, gaps and needs for investments.

The current study informs financial institutional and other actors interested in supporting the sector in investment opportunities. More investments are needed and expected in this sector in the future to support MAP plantations following a diversification approach, facilities and equipment for MAP drying, sanitation, packaging. Investments are also needed for MAPs grinding and packaging for retail use, and distillation and essential refinery. Entering the market of the high quality essential oil is however a challenge, given the technology requirements and the policy of importing foreign companies. Therefore interventions are required in both technologies upgrading and improving access to market - identifying the market and negotiating the access (to the identified markets).

In addition, there is a need for short term liquidity funding. There is a time lag between the moment that the expenditures and the sales occur at both processor level as well as farm level. Thus, there is a time window for short term loans for processors and farmers that could be covered by banks.

Furthermore, given that MAP exporters have often established close dyadic working relationships with other actor in the value chain, they may serve as 'agents' for financial institutions and may help reach with financing other chain actors who would have been otherwise difficult to reach (value chain financing).

The MAPs sector can benefit from public support schemes. The partial grant policies (which vary year by year) have important implications for financial institutions - they have the opportunity to co-finance the investment for 100% of investment amount out of which at least 50% short term loan (the part to be reimbursed by government) and at most 50% loan term loan (the part to be paid by the beneficiary).

1. INTRODUCTION

Agriculture is one of the main sectors of the Albanian economy in terms of employment and contribution to GDP and is considered a priority sector by the government of Albania. Despite recent growth, Albanian agriculture still faces various challenges including difficult access to credit; the agricultural sector receives only 2% of total credit for the economy.

Albania has a strong tradition in the production and export of Medicinal and Aromatic Plants (MAPs). MAPs have been and remain main agrifood products that have been exported – currently the second after vegetable. More than 95% of the total collected MAPs are exported. Export of MAPs has increased significantly over the last years – it has doubled since 2010, reaching around 30 million USD in 2016. Albania is an international player in terms of MAPs export ranking 16th at world level. The increase in export is triggered by a combination of growing supply (mainly through growth of cultivates MAPs) and increasing world market demand. Albania is an important supplier of raw material or half-finished products for many EU and US industries in different fields (food and beverage industry, healthcare, cosmetics and perfumes, additives etc.); almost 75% of sage imported by USA has been of Albanian origin.

This study is developed from the technical expertise and financing of the Albania Agribusiness Support Facility (AASF). AASF is a financing framework developed by EBRD in cooperation with and with support from the Government of Albania which started its activities in 2016.

The objective of the facility is to motivate Albanian financial institutions to support a vital sector of the Albanian economy with widely untapped potential - agriculture and agribusinesses. AASF provides access to finance for the agribusiness sector in two ways: senior loans and/or portfolio risk-sharing to both MFIs and banks. The institutions benefit from a first loss risk cover that was made available by the Government of Albania. AASF therefore represents an innovative financial instrument to encourage lending by financial institutions to the whole agribusiness value chain.

The final beneficiaries of AASF are farmers, entrepreneurs and companies that are engaged in primary agriculture, agricultural equipment production and trade, logistics, agribusiness service providers, agricultural processing, wholesale as well as retail traders. Agribusinesses may also benefit from the EBRD Advice for Small Businesses (ASB) program, which provides consultancy on strategy development, marketing, technical restructuring and other key institutional development areas by international and local experts.

The study objectives

This study's general objective is to provide an overview of the selected value chain in Albania by analysing recent developments and the current state, including opportunities, constraints and challenges, with special focus on investments needs/potentials.

More specifically, the study

- provides an overview of the main production trends, international trade trends and market trends;
- provides a 'snapshot' of value chain structure, flows and value chain governances with special focus on 'leaders in the value chain';

- synthesises the main points in a value chain through a SWOT analysis strategy, and;
- recommend on the main opportunities for (investment financing, working capital financing, and value chain financing) the financial institutions.

This study report provides information and recommendations, which can be useful to orient entry strategies for financial institutions or for the preparation of financial services.

Methodology

Both secondary and primary information/data sources have been used to meet the study objectives; semi-structured interviews with value chain actors and sector experts were used as a primary source of data. Data were analysed using various techniques including descriptive analysis, trend analysis, text analysis, SWOT analysis strategy. Value chain analysis was adopted as general framework for analysis. Methodology is described in more details in the following section.

The target group

The value chain study is primarily designed for the Financial Institutions, but this study report can serve as a useful background in the decision-making process of other relevant stakeholders such as Ministry of Agriculture (MARD), development agencies, and private sector actors (e.g. companies, associations).

What the study is and is not

The report is a rapid appraisal and deals particularly with the value chain financing need and hence financing opportunities for financial institutions. The study is designed in such a way that it is easy to read in terms of structure/flow and level of information details, suiting to the needs of the reading decision-making (e.g. bankers). The study is designed to serve as a 'tool' for executive staff rather than a research study per se.

The report structure

The report is structured as follows: the second section consists of the description of the methodology. The third section provides an extensive analysis of production and international trade trends. Section four describes the value chain structure, flows and actors profile. Section five consists of production technology processes overview to make the reader familiar with main technological processes and relevant costs highlighting timing when such processes/costs occur, as well as harvesting/production (proxy for the timing of sales). Section six provides a SWOT analysis with focus on investments needs/potentials, whereas the last section concludes the main findings of the study.

2. METHODOLOGY AND APPROACH

Sector selection

The MAPs value chain study is part of a set of sector studies provided to financial institutions by AASF for the most important agricultural sectors in Albanian agriculture. Therefore, the first stage consisted of the prioritization of the sectors or subsectors or (group of) products for which there is the highest demand/potential for growth and investments – considering export market potential or import substitution potential. Two groups of factors were considered when designing the list of products to be analysed: market potential and other factors leading to product competitive advantages. Market potential is examined in two angles, export potential and potential to import substitution potentials. Export potential considers revealed export performance combined with international demand for the product in question - when exports grow over time and this coincides with increasing international demand this product is said to have export potentials. Import substitution potentials considers potentials to meet domestic demand. Other consideration leading to competitive advantage include supply side factors, such as labour to land ratio, tradition and skills also established linkages among actors on the value chain, including also well- established linkages between Albanian actors and international buyers.

The MAPs value chain is considered a priority sector considering its export performance and potential.

Data collection

The study combines qualitative and quantitative methodology. This allows for a better understanding of the status and dynamics of the relevant product chain. The study combines analysis of secondary and primary data. For various issues/indicators, analysis was based on the secondary data (including sectoral/ structural data).

The secondary data was retrieved from MARD (Ministry of Agriculture and Rural Development), INSTAT (Albanian Institute of Statistics), UNSTAT COMTRADE (for international trade), FAOSTAT (for production and consumption) and EUROSTAT (for production and international trade), etc. In addition, a review of other relevant studies and reports was carried out. The constraint faced is that for some indicators (related to domestic production and trade) there are no available statistics, while for some others there are no recent statistics. However, regarding international trade, latest data are available and were analyzed. When applicable data from other countries or regions were collected for comparative analysis purpose.

The primary data are collected through semi structured in-depth interviews carried out with key informants, representing value chain actors and sector experts. A snowball survey was used to identify the main actors and experts for each value chain for the semi-structured interviews (part of the primary qualitative research). In depth interviews with key informed stakeholders (alongside desk research), enabled the obtaining of up-to-date understanding about the main patterns for the key sectors. A limited number of interviews with key informed value chain players/stakeholders were carried out.

Data analysis

Regarding data/information analysis, secondary statistical data has been subject of standard descriptive analysis including tables and graphs depicting historical trends. Comparison of production and consumption trends with world, European and some cases with neighbouring countries was done, when applicable/necessary. Regarding VC expert/actors interviews, notes are analysed by using simple content summarizing approach and qualitative content analysis techniques, with the aim to sum up the most relevant and interesting topics emerged from the interviews. Value chain analysis was adopted as general framework for analysis of value chain structure and (products, financial, and information) flows.

3. TRENDS AND PROSPECTS OF THE IDENTIFIED VC

3.1. PRODUCTION TRENDS

Medicinal and Aromatic Plants (MAPs) sector is an important source of revenue for many rural households, particularly in mountainous areas in Albania. According to previous studies there are up to 100,000 people that are directly or indirectly receiving income from the MAPs sector; about 20,000 households are engaged in MAPs collection and about 4 000 in cultivation[1,2]. According to a previous study, more than 25% of rural households in mountainous areas are involved in MAPs income earning activities, either in harvesting and cultivating (up to early 2010ies, the wild MAPs were dominant)[3].

In geographical terms Shkoder region ranks the first area in terms of the share of incomes generated by agricultural households from MAPs activities, followed by Elbasan and Kukes. Detailed data at district level show that the number of farmers involved in MAPs activity is very high in Malesia e Madhe (62.3%), Kukes (48,6%), Kolonje (41,4%), and Librazhd (38,8%)[4].

The cultivation of MAPs has gained importance in the last years. The main cultivated plants are sage, lavender and thyme. Main reasons for farmers´ involvement in MAPs cultivation are support to cultivation by processors/exporters, sector´s high profitability, and support by government subsidy scheme.

About 90% of the farmers that cultivate MAPs have been located in the region of Shkodra (mainly Malësi e Madhe). Most MAPs were cultivated during early 2010ies, to a large extend triggered by governmental subsidy scheme support.

As shown by the data on the Shkodra region (Table 1), the dynamics of cultivation during the years is quite impressive. As of 2014, the cultivated area grew at lower pace because of drastic decrease from the government subsidy scheme and also due to market developments. In 2017, the area cultivated with MAPs, according to the interviews, has been reported to have increased with ca 1,000 Ha as compared to 2014.

1 DSA (2010). The Medicinal and Aromatic Plants Value Chain in Albania. Technical report prepared for USAID – Albania Agriculture Competitiveness (AAC) Program.

2 Imami, D., Ibraliu, A., Fasllia, N., Gruda, N., & Skreli, E. (2015). Analysis of the medicinal and aromatic plants value chain in Albania. *Gesunde Pflanzen*, *67*(4), 155-164.

3 IDRA (2010). Survey on MAPs for SNV-Promali covered area (Korçë, Shkodër, Dibër, Kukës, and Elbasan). Technical report prepared for SNV-Promali

4 IDRA (2010). Survey on MAPs for SNV-Promali covered area (Korçë, Shkodër, Dibër, Kukës, and Elbasan). Technical report prepared for SNV-Promali

Table 1: No of new farmers cultivating MAPs and newly cultivated area in Shkoder region by years

Category	2010	2011	2012	2013	2014
Number of farmers					
Sage	492	680	518	402	195
Thyme	46	15	24	7	5
Lavender	22	45	54	195	90
Total	**560**	**740**	**596**	**604**	**290**
Cultivated area (ha)					
Sage	580	828	617	461	238
Thyme	58	18	30	9	7
Lavender	20	64	87	239	105
Total	**658**	**910**	**734**	**709**	**350**

Source: Shkoder Regional Directorate of Agriculture (2014) - ~~data provided upon request of the authors~~

Table 2: Area cultivated with MAPs by type

Product	2014	2018
Sage	2724	1300
Helichrysum		700
Thyme	122	200
Lavender	515	900
Oregano		20

Source: Expert assessment (based on interviews)

Processing trends are reflected in the following sub-section, through export statistics since processed MAPs (e.g. essential oils) are destined largely for exports.

3.2. INTERNATIONAL TRADE TRENDS

Export of MAPs has increased significantly over the last years – it has doubled since 2010. The increase in export is triggered by a combination of growing supply (mainly through growth of cultivates MAPs) and increasing world market demand.

Table 3: International trade of MAPs

Year	Exports		Imports	
	000 $	MT	000 $	MT
2010	14,001	5,565	603	328
2014	19,589	6,261	630	348
2015	28,675	12,048	900	467
2016	29,594	9,607	1,112	586

Source: UNSTAT (2018)

In addition, the export of essential oil has increased since 2005, while it still appears to be low considering the potential as reported in the interviews.

Table 4: International trade of essential oils

Year	MT	000 $
2005	1.3	103
2010	4.3	514
2011	4.0	438
2012	3.5	327
2013	3.7	378
2016	1.0	319

Source: UNSTAT (2018)

3.3. MARKET TRENDS

3.3.1. International market

While Albania experiences high trade deficit for most agrifood products, it is a net exporter in MAPs. Albania is an international player in terms of MAPs exports. Albania ranks 16th for the world export of MAPs (Table 5).

Table 5: Maps export performance

Product label	Value exported in Product label 2016 (USD thousand)	Trade balance 2016 (USD thousand)	Annual growth in value between 2012-16 (%)	Annual growth in value between 2015-16 (%)	Annual growth of world imports between 2012-16 (%)	Ranking in world exports
All products	1962117	-2707173	-2	2	-4	133
Agricultural products	196002	-478351				
MAPs	29595	28482	8	4	1	16

Source: International Trade Centre (2018). https://www.trademap.org

The export trend is positive and steady - the export annual growth between 2012 and 2016 for this product is 8% and between 2015 and 2016 is 4%. Export of MAPs occurs under increasing international demand for these products.

The export potential for organic production, combined with the market/consumer preferences development, have made organic agriculture important in Albania since early transition. Organic products in Albania were first introduced in the mid-1990ies due to the increasing demand for MAPs. Several Albanian MAP exporters are certified organically according to EU and USA market requirements. Organic certification of MAPs represents a potential not only for the export market (where to most MAPs are channelled) but also to the growing local market (as shown below).

3.1.2. Domestic market

Even if demand for MAPs in the domestic market is limited, a wide range of MAPs with lower processing grade is sold in fresh fruit and vegetable markets and retail outlets.

The main products traded in the domestic market include herbal teas and spices used for cooking. At present, tea and salep are packaged by Albanian companies and are sold in retail outlets including supermarkets as well as restaurants. Other herbs and spices are sold in fresh fruit and vegetable markets packaged in basic bags – usually 20-100 gr.

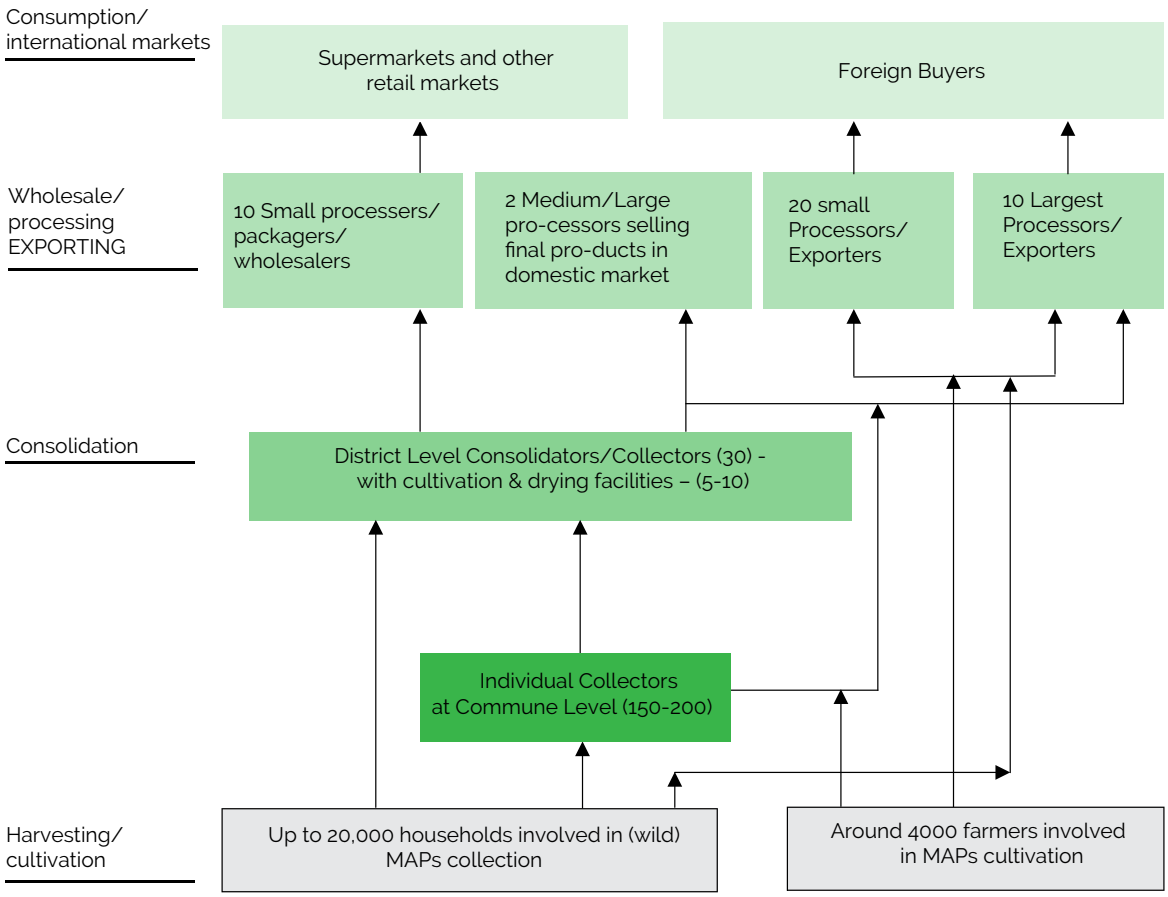
Organic certification of MAPs represents a potential not only for the export market (as mentioned above) but also to the growing local market. Most Albanian consumers view organic products as safer and healthier compared to other (conventional) products. However, most consumers are not familiar with organic certification and its requirements. The market for organic food in Albania is still small, but the consumers' preference for organic food represents a potential for market development.

4. VALUE CHAIN STRUCTURE AND KEY ACTORS

4.1. VALUE CHAIN STRUCTURE AND ACTORS' PROFILE

The main actors in the MAPs value chain are harvesters and producers of cultivated MAPs, collectors/consolidators who are divided into two sub-categories - district or regional collectors and individual collectors, and processors and exporters of small, medium and large size. The MAPs value chain is organized into several levels, as shown in Figure 1 below.

Figure 1: Medicinal and Aromatic Plants Value Chain Map



Source: Adopted by authors based on DSA (2010) and field interviews and

Subsequently, we give a short profile for the main actors in the value chain and then proceeded with value chain flows and value chain governance.

Harvesters and cultivators are people living in the rural and mountainous areas of the country. They harvest wild MAPs, dry and store them in their houses until they sell them to a collector or processors. In the last few years, the number of farmers cultivating MAPs is growing, although the trend is rather stagnating given the price collapse for the main MAPs, including sage and lavender. As mentioned earlier, there are more than 4000 farmers that cultivate MAPs, and according to expert interviews, there are about 100 farmers that have more than 5 Ha (of planted MAPs).

District level collectors are intermediary actors between farmers and processors. Although they do not have any real processing lines, they perform some simple operations that may be considered as first processing, including drying, cleaning, etc. They use old or simple stores or other facilities. The quantity of plants collected varies between 20-150 MT per year (field interviews and observations by the authors of this study). There are around 30 local regional/district level collectors/consolidators.

Small processors´ capacity varies between 150 to 500 MT of MAPs annually and their turnover is usually below Euro 1 million. Several companies (up to 20) fall under this category. Processing at this level is limited both in terms of processes and in terms of quantities. Small processors perform simple processing. Usually, the product is simply cleaned, grinded and packaged in sacks. They have invested in processing and cleaning lines. A typical cleaning line may perform pre-cleaning operations, such as the removal of stalks, other grasses, dust and stones and other physical external elements, which takes place before pressing and packing. Most of them sell their product in foreign markets or to large exporters. In few cases, they sell in domestic retail market.

Large processors/exporters. There are about 8-10 large exporters. The storing and processing capacities for medium and large processors/exporters varies between 500 MT and 2400 MT and their turnover is generally above Euro 1 million.

Exporters process a wide range of MAPs types (some exporters export/sell more than 100 types of MAPs). The main product is grinded and packed as dried MAPs. Several processors – not only large - produce also essential oils as a by-product of the MAP drying. The essential oil extraction is based on a quite simple distillation technology.

Table 6: Type of processed products for the most experienced (more than 20 years) operators

Company	Products
Filipi& Co Relikaj	Mostly dry MAPS
Gjedra Ltd. HerbaFructa	Dry MAPS
Mucaj Xherdo Ltd	Dry MAPS and essential oil

Source: Boban (2014)

As abovementioned, the steps of processing are cleaning, grinding, stalk removing, pressing, and packaging. This type of technology is quite often out of date. There are however cases where processors have made large modern investment; Xherdo ltd for example has invested 1.7 Euro during recent years in MAPs processing machineries and equipment also with the support of the IPARD like programme.

The processing capacity of large processors ranges from 1200 MT to 2400 MT of raw material and turnover ranges from over Euro 1 million to Euro 4 million.

Processors targeting the retail market. The development of domestic market is slow. In the market; there have been operating two companies with complete industrial processing selling labelled products. They sell a wide range of herbs and spices in the domestic market through the three

main distribution channels including drug stores, supermarkets, and bars. In addition, there are other smaller operators such as Agropuka (association of producers/farmers) that sell a wide range of packed herbs and spices.

4.2. VALUE CHAIN FLOWS AND CHAIN GOVERNANCE

Product, information and financial flows

Product flows. Harvesters and cultivators sell their product to district level collectors, or processers and exporters. Individual collectors link farmers/harvesters with district level collectors. The last group sell to processers: small, medium and large processors/exporters. District level collectors have established regular relations of supply with buyers (processors/exporter). However, they are not tied to one single buyer. They can supply one buyer with one product, and another buyer with another product. Or after having supplied one buyer with a quantity of a select MAP, they switch to another buyer for a higher price. The role of actors in the value chain may be described as follows: (i) export sector in Albania is quite competitive - there are about 30 exporting companies, operating in the sector. Multinationals have played an important role in sector structuring; (ii) there is (and there will be) a role to be played by district collectors and individual collectors given the high costs of processers to establish a capillary collection system.

Information flow. Some large processers/exporters (Filipi ltd., Gjedra ltd., Sonnentor, and others) have established closer relationships with farmers. They advise farmers about technology and standards. Having said that, close relationship of exporters with farmers is not yet a pattern.

Financial flows. As payments are usually done upon delivery (often in cash) between processors and collectors, processors need liquidity. So, most of them borrow large loans from banks and use overdrafts.

Value chain governance

Exporters are the leader actor/node of the value chain given that the chain is export oriented. They decide about the product type, characteristics and prices and provide related information, in line with export market requirements, support sometimes cultivation, etc. Although exporters tend to take some control on some value chain activities (supporting cultivation, teaching quality standards, or even ordering production), spot market is the prevailing form of transaction.

Some exporters (Gejdra, Relikaj, Sonnentor and others) have also introduced the traceability system - a system which is design to track the origin and destination of the MAPs flow. Such system imposes a closer relationship between farmers-suppliers and buyers/exporters.

Box 1: Standards, contracting and cooperation – the case of SONNENTOR project supported by SARED

Sage is one of the most important species of exported MAPs, but has witnessed a price drop from 2.2 to 0.7 USD per Kg due to its exponential increase in cultivation in Albania, particularly in the region of Shkodra. Low prices are attributed to increase in production stimulated by governmental schemes (see the specific case study), but also attributed to poor post-harvest practices affecting the standards of exported sage (sorting, cleaning, homogeneity, phyto-sanitary and food safety treatments, dryness etc.) and to the basic processing (not according to ASTA standards). In the case of lavender and thyme, two other important cultivated MAPs prices of conventional MAPs exported from Albania are low compared to the same organic MAPs.

Quite the contrary, the prices of organic sage, lavender and thyme can be up to twice higher (depending on the species and buyer) compared to the highest price for conventional products. Moreover, their demand has increased steadily.

Several key producers are interested to change their cultivation system from conventional to organic and exploit these market opportunities. Among the producers, which are members of LUJZ Group (farmer group cooperating in post-harvest and selling), several are already interested to undergo the procedures of certification, including all the changes in terms of quality and traceability requirements.

SARED (program financed by DANIDA and GIZ) financed a specific capacity building project which is supporting the creation of a direct business relation between cultivators of LUJZ Group with SONNENTOR (exporter/trader of MAPs) in pursuit of higher value (prices) and improved quality. As SONNENTOR exports directly to processors abroad, the project addresses all the challenges related to product quality, especially in terms of residues or microbiological contamination. The project involves also public agencies as ATTC Shkodra and Extension Service.

The "wait and see" approach for the "conventional" products is usually associated with spot market exchange relationships upstream the value chain and to a certain extend downstream. But quite the opposite is true for organic MAP. There is a strong coordination both downstream and upstream the chain. Application of contract farming by SONNENTOR can provide benefits to cultivators of LUJZ Group by removing the risk of shortages or oversupply and volatile prices, and mitigating uncertainties, while investment in standards/certification (e.g. organic certification) may enable higher profitability for both farmers and traders. In this context, exporters can serve as a reference/entry point to finance the sector.

Source: Based on Imami (2018[5]) and on semi-structured interviews

5 Imami, D. (2018). Smallholders and Family Farms in Albania - Country Study Report commissioned by FAO.

5. PRODUCTION TECHNOLOGY PROCESSES

In the following table (Table 7), it is shown the calendar of the main production processes for sage (which are related to expenditures). Soil ploughing & scarification is performed in February. Planting is done during spring (sage and other main MAPs such as Lavandula or thymus are multi-annual crops). There is a need for labour work for maintenance and for harvesting which takes place during June-July.

Table 7: Calendar of sage production processes (by month)

	Month											
Main type of expenditures	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1.Soil ploughing & scarification												
2.Planting &saplings												
3.Basic & complement fertilizer												
4.Harvesting												

Source: Expert assessment, based on desk review and interviews

As it may be observed from the above information/ tables, there is a time lag between the moment that the expenditure occur and the sales meaning that there is a need for working capital among farmers. Thus, there is a time window for short term loans provided covered by banks (which is important considering also late payments are reported during the interviews).

Albania produces few tones of essential oils – companies typically use a distillatory operating with steam technology. The main essential oils produced include sage, juniper, oregano, thyme and winter savoury essential oils. From 1 kg of sage, 0.62 kg (62%) of leaves are obtained, which can be exported. After the leaves are taken, stacks are used for extracting essential oils. The essential oil content of remaining stalks is extracted by steam distillation.

Estimated ratios of quantities of stalks to quantities of essential oils produced are given in Table 8 below.

Table 8: Ratios of Production of Essential Oils from Select MAPs

MAPs Quality	Quantity of MAPs Stalks (in Kg)	Quantity of MAPs Oil (in Gr)
High Quality Sage	100	450-500
Low Quality Sage	100	220-250
Good Lavender	100	90-110
Good Winter Savoury	100	80-120

Source: DSA (2010)

6. SWOT ANALYSIS STRATEGY AND INVESTMENT NEEDS

6.1. SWOT ANALYSIS STRATEGY

The following SWOT analysis strategy is conducted with the objective identifying financing opportunities in the medicinal and aromatic plants sector.

Table 9: MAPs sector: SWOT analysis strategy

	STRENGTHS (+)	WEAKNESSES (–)
	Long experience/expertise in MAPs collection, cultivation and trade	
	Suitable soil and climate conditions for MAPs sector development	
	Recognition of high quality of Albanian wild MAPs	
	Labour availability for both harvesting and cultivation	
	Investments are made in modern drying facilities	Insufficient drying and storing facilities
	Efforts to exploit domestic market for medicinal, herbs and spices; some investments in tea production	No investment in sterilization lines; limited investment in tea production
	Largest exporters consolidate and continue to invest	Insufficient investment in essential oil distillatory
		No investment in essential oil refining industry
OPPORTUNITIES (+)	**S (+) / O (+) STRATEGY**	**W (-) / O (+) STRATEGY**
Sustained international demand for wild and cultivated MAPs		Support drying and storing facilities
Large areas available for cultivation of MAPs	Support MAPs plantations based on a diversification approach	Support investment in essential oil producing industry
Increasing domestic market demand for medicinal, herbs and spices plants	Support simple herbs and spices processing lines	Consider supporting investment in essential oil refining industry
Favourable government and donor support policy for the sector		Support investment in sterilization lines and tea production industry
THREATS (–)	**S (+) / T (–) STRATEGY**	**W (–) / T (–) STRATEGY**
Damaged wild MAPs population risks both sector sustainability and biodiversity	Support MAPs plantations based on a diversification approach. Focus on organic production for MAPs destined for food or health use is advisable	
Risk of market collapse if the current trend of cultivating a limited number (mainly sage) of plants persists		
Limited/lack of MAPs market research and outlook exposes to high risk the important investments in the sector		

6.2. FINANCING NEEDS

6.2.1. Investment trends and financing needs

Investment trends

Since the early 2010s, there has been a significant increase of cultivation of MAPs, especially sage, partially triggered by governmental subsidies, resulting in an increase of the overall MAPs supply, compensating for the contraction of the wild MAPs supply. There are also concerns about the evolution of the MAPs sector, partially related also to the national subsidy scheme. Overproduction (triggered also by the subsidy scheme) has resulted in dramatic price decrease. For example, in case of sage, Albania is a world player and thereby changes in production of volumes in Albania may affect world/US market prices. With the significant increase in production there was observed a significant decrease of prices (almost by half) at farm level (2-3 times lower in a few years for MAPs such as sage and lavender). Many cultivated fields have been abandoned, since farmers have lost interest (due to low prices) to continue involvement with the investments in MAPs. In the case of MAPs, there is lower flexibility of adjustments (when compared to field vegetables) because main MAPs are multi-annual crops. Nevertheless, there is no clear guidance of which MAPs will be more likely to be absorbed with higher prices. For example, right now, there is a high demand and high prices for Thymus (also because of low production) but there is a risk that farmers will rush to increase cultivation with Thymus, resulting in oversupply and dropping prices. At processing level, there have been investments in processing MAPs including several processes of processing (cleaning, standardization, producing essential oils) and new investments are expected.

Investment financing needs

Following the SWOT analysis strategy and investment trends, investment financing needs are summarized in the Table 10.

Table 10: MAPs investment financing needs

Type of investment	Cultivators (groups of cultivators)	Collectors	Small processors	Large processors/ exporters
Support new MAPs plantations				
Agricultural machinery (tractors, soil levelling machines)				
Drying facilities				
Simple processing lines				
Modern dried MAPs processing line				
MAPs storages				
Essential oil distillatory				
Essential oil refinery				
Sterilization lines				
Final (tea) product processing lines				

The current trend of MAPs cultivation should be supported and therefore considered a funding opportunity for financial institutions. Diversification - supporting new species rather than just sage - is critical, especially in order to avoid price collapse risk. Within the diversification approach, supporting organic production is advisable. Specialised agricultural machineries are also needed for larger farmers.

Investments in drying facilities including drying room are expected to be a future trend given the real need for drying, particularly for autumn harvest. Investment in drying facilities may be done by: individual farmers owning large areas planted with MAPs (there several farmers each having around 40 ha of cultivated MAPs and a large number of farmers having 5-10 ha of cultivated MAPs) and farmers groups, or local collectors and processors/exporters. The latter may collect fresh MAPs right after harvesting and make a professional drying.

Simple processing lines used to separate the MAPs leaves from the rest - clean, press and package are likely to be done also at local/regional collector level.

Essential oil production industry has significant potentials for development. Two types of investment may be foreseen here, namely investments into essential oil extractors (distillatory) and much larger investments in essential oil refineries. Such a processing will have a large economic benefit because it will make possible to export processed products rather than raw materials. This would lead to increased value added and increased revenues remaining in Albania. While essential oil extraction is already happening, there is no any essential oil refinery.

Furthermore, investment in production of tea products for domestic and (regional) export markets can be of interest. There are plans to invest in upgrading tea production technology, for both facilities and equipment.

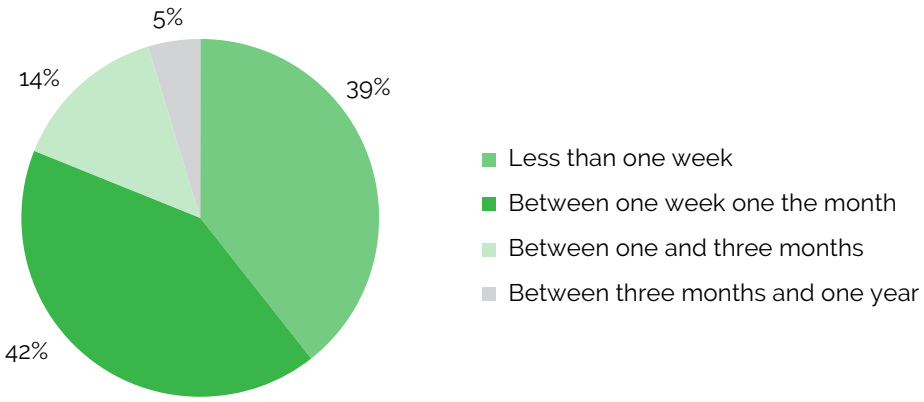
One general observation, which needs to be highlighted however, is that the MAPs sector is currently going through a crisis. The prices of main cultivated MAPs (e.g. sage, lavender) are at very low levels, as mentioned earlier. The lack of sector vision and the current market structure have led to a collapse in prices and this could become re-cyclical unless there is a sector strategy developed, for instance through Private Public Partnerships. Hence, the investment in the sector should be carefully considered in close cooperation with sector associations using high level expertise.

6.2.2. Working capital financing needs

Working capital financing trends

The farmer-buyer transactions are mostly based on short-term payment - in 81% of cases the buyer (mainly MAPs exporter) pays the farmer within one month, according to a previous study, as shown also in the Figure 2. In 14% of cases, the buyer pays the farmers between one and 3 months and in only 5% of cases, the buyer pays farmers between 3 months and one year. There are no payments beyond one year. Since the bulk of transactions are short-term and cash-based, most buyers use their savings. Those actors who avail loans from banks and/or use overdrafts represent the minority of cases.

Figure 2: Farmer payment by the buyer in the MAPs sector



Source: Author elaboration using value chain coordination data base (2014)

According to the interviews, the position of farmers has weakened recently (due to over-production), thereby, late payments have become more common.

The relationships between farmers and input suppliers are also short-term cash-based - input suppliers usually expect farmers to pay at the time of transaction.

Working capital financing needs

As cash payments are the rule it is becoming frequent that the first buyer arriving cash-in-hand gets the product, regardless of previous agreements. Therefore, there is a buyers (mainly processers/exporters) need for short term liquidity.

6.2.3. Value chain financing

Spot market is the prevailing form of transaction, but there are however buyers/exporter who have established rather stable dyadic relationships with other chain actors: some exporters have established working relationships with farmers as well as long term relationships with district collectors; local collectors get also sometimes capital in advance from processors to pay the harvesters. As mentioned earlier, some of them have also introduced tractability systems. These (rather) stable dyadic relationships between actors in the vale chain contain potentials for value chain financing, in which exporters may serve as agents to provide, at least, information on farmer and district collectors in the latest financial needs.

7. CONCLUSIONS

The MAPs sector is an important source of income for households in the mountainous areas of Albania. MAPs have been traditionally main agri-food products categories for export purposes – currently being the second most important after vegetable. Export of MAPs has increased significantly over the last years – it has doubled since 2010, reaching ca 30 million USD. The increase in exports is triggered by a combination of growing supply (mainly through growth of cultivates MAPs) and increasing world market demand. Wild MAP, available all over the country, whose quality is well known and represent the most valuable asset of the sector, has traditionally dominated the production base of these plants in Albania. MAPs have been one of the most important sectors of agri-food export, especially in terms of international trade. Exports consist mainly of raw MAPs – only a small share of MAPs are processed into essential oils, while there has been no production of detergents, cosmetics or industrial medicines based on MAPs in Albania. More than 95% of the total MAPs collected are exported. Albania is an international player ranked as among the top 16 world MAP exporters in 2016. Albania is an important supplier of raw material of half-finished products for many EU and US industries in different sectors (food and beverage industry, healthcare, cosmetics and perfumes, food additives etc.); almost 75% of sage imported by USA has been of Albanian origin.

Since early 2010s, there has been a significant increase of cultivation of MAPs, especially sage, partially triggered by governmental subsidies, resulting in an increase of the overall MAPs supply, compensating for the contraction of the wild MAPs supply. The main cultivated plants are sage, lavender, thyme, oregano, lemon verbena and other products.

Compliance with standards of exported products (safety standards, standardization of moisture level, mixing of varieties with different value, etc) has been a challenge to be competitive in export markets.

There are also concerns about the evolution of the MAPs sector, partially related to the subsidy scheme. Overproduction (triggered also by the subsidy scheme) has resulted in dramatic price decrease for sage, which has been also the main cultivated MAPs. With the significant increase in sage production there was observed a significant decrease of prices (almost by half) at farm level (2-3 times lower in a few years for MAPs such as sage and lavender).

Many cultivated fields have been abandoned, since farmers have lost interest (due to low prices) to continue their involvement in MAPs. In the case of MAPs, there is lower flexibility of adjustments (when compared to field vegetables) because main MAPs are multi-annual crops.

More investments are needed and expected in this sector in the future, related to different facilities and equipment for MAP drying, sanitation, packaging and distillation, production of different products requiring essential oils or MAPs and grinded sorts for retail use. The types of investments required is clear, but since each operator still want a full range of facilities rather than using independent service providers (which, for lack of potential market were never established) the pace of investments will depend by the capacity and financial possibilities of individual operators.

Entering the essential oil high quality market is however a challenge, given the technology requirements and the policy of importing foreign companies. Therefore, interventions are required in both technology upgrading and improving access to market - identifying the market and negotiating the access.

MAPs sector can benefit from public support schemes. The partial grant policies (which vary year by year) have important implications for financial institutions - they have the opportunity to finance the investment for 100% of investment amount out of which at least 50% short term loan (the part to be reimbursed by the grant after the implementation of the investment) and at most 50% long term loan (the part to be co-financed by the beneficiary).

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9. ANNEXES

Table 11: Governmental subsidy schemes regionalization map (2018)

No	Measure	REGION											
		Berat	Dibër	Durrës	El-basan	Fier	Gjiro-kastër	Korçë	Kukës	Le-zhë	Shko-der	Tiranë	Vlorë
1	Apple												
2	Cherry												
3	Walnuts, hazelnuts												
4	Pomegranate												
5	Chestnuts												
6	Olives												
7	Oilive groves renovation												
8	Citrus												
9	Vineyard												
10	Strawberry												
11	Medicinal and aromatic plants												
16	Melon/watermelon in low tunnels												
12	Tomato, cucumber, paprika												
18	Vegetables bee polination												
14	Bio-mass heating system												
19	Greenhouse automation system												
13	Drip irrigation												
15	Cover plastic replacement												
17	Hail nets												
25	Global GAP certification												
27	Organic certification												
28	ISO 22000 certification – olive oil												
29	Insurance prime												
41	Suppor to green house seedlings												
43	Cereal cultivation												
30,37	Cattle ear tag and milk supply												
30	New born small ruminants ear tagged.												
38	Beehives												
21-24, 31,33-35, 44-52													

Note::

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