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THE MEDICINAL AND AROMATIC PLANTS VALUE CHAIN IN ALBANIA

USAID – ALBANIA AGRICULTURE COMPETITIVENESS (AAC) PROGRAM

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ABBREVIATIONS

ACIT	Albanian Center for International Trade
CERES	Certification of Environmental Standards
IFDC	An International Center for Soil Fertility and Agricultural Development
USAID	United States Agency for International Development
MAPs	Medicinal and Aromatic Plants
EUROSTAT	European Statistical System
USDA	United States Department of Agriculture
EU	European Union
FAOSTAT	Food and Agriculture Organization Statistics
FAO	Food and Agriculture Organization
EDEM	Enterprise Development and Export Markets
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
MAPs	Medicinal and Aromaic Plants
UNDP	United Nations Development Programme

EXECUTIVE SUMMARY

INTRODUCTION

Aromatic and Medicinal Plants (MAPs) is the main non-timber agri-forestry business in Albania, generating more than 16 m Euro per year and involving, mostly as a part time activity, more than 100,000 rural dwellers. The sector was already an important source of revenue during the planned economy.

The value chain is mainly export-oriented: about 60% of MAPs are shipped to Germany and USA. Exports of MAPs account for more than half of the timber and non-timber forestry products exports and 25% of all agri-food exports. In comparison, the domestic market is much more limited.

Albania is a major international player for some products, such as sage, thyme, oregano and winter savoury. In some specific markets and market segment, Albanian products are market leaders, such in the case of sage in USA and wild thyme in Germany.

Most of the MAPs business is made by wild products. Increasing procurement cost, competition between wholesalers and difficulty to match the market potential only with wild products are increasing the interest of the operators for cultivating some MAPs, such as sage, oregano, thyme lavender and cornflower. At present, it is estimated that the total cultivated surface area, should not exceed 500 ha.

The efforts of the main operators for expanding their business are now concentrated on widening the range of wild MAPs offered and on investing in MAPs processing for the production of essential oils.

MAPs are found all over the country, but collection is more organized in some districts: Malesia e Madhe, Shkoder, Skrapar, Elbasan, Korce, Berat, Permet, and Durres. Sage from Northern districts is generally considered better, while the best oregano and thyme are mainly coming from Central and Southern Albania.

The structure of the food chain is relatively simple: rural families collect and dry the MAPs, which are purchased by 30-40 regional collectors all around the country. Collectors are selling to exporters. Some of the exporters have also started to process MAPs to produce essential oil. There are still a few farmers cultivating MAPs.

During the last ten years, the sector is grown in size and efficiency. An increasing number of operators acquired the experience, the contacts and the resources to export directly MAPs. At present, it is estimated that not less than eight companies now have a turnover exceeding 1 m Eur. Ten years ago, exports were almost exclusively made by a single company, a subsidiary of a multi-national group which is now facing hard competition.

The operators have mainly invested in increasing vertically downstream integration, i.e. in better warehouses, sorting/grading equipment and some simple processing facilities, trying to directly access the foreign markets. The main actors did not contribute to develop a system of specialised services or service facilities, so that the core of the chain is made by not sufficiently specialised actors, much bigger than in the past, but still very small for international standards, considering the importance of Albania in MAPs international trade.

The sector is grown more organically and faster in other Mediterranean countries, such as Turkey, which are now able to keep in the country a higher share of the final value added. Triangular trades from Albania to the final markets through Turkey and Macedonia are growing.

The present equilibrium between supply and demand is no more sustainable, due to socio-economic and market factors. This situation raises a major challenge for the possible impact in terms of business reduction, employment of rural poor and environmental impact.

Finding a new equilibrium will require re-shaping and strengthening the value chain governance, presently left only to market forces. Local communities, competent ministries and value chain leading actors must be more actively involved and investments in the upstream part of the value chain must increase. The alternative is the re-establishment of a new equilibrium at a sensibly lower level (in terms of turnover and employment), driven exclusively by market forces.

External challenges come also from increasing international competition from other Mediterranean countries.

At present, the two main issues to be addressed are:

- The improvement of quality, the adoption of standards and quality controls along the whole value chain. At present, the average export price of Albanian MAPs is generally lower than that one of main competitors, in spite of high organolectic qualities of Albanian wild MAPs. Such a situation is mainly due to inadequate post-harvest practices, leading to insufficient quality standards.

- The need for a new and more efficient governance of the sector, to prevent its decline.

Key action and investments along the value chain can include:

1. Quality improvement in the upstream value chain of wild MAPs, training harvesters on sustainable collection of MAPs, establishing community dryers/sorting facilities and community-based auctions, where necessary, to contrast the uncontrolled procurement of MAPs.

2. More organic efforts to introduce MAPs cultivation, training agronomists, producing extension material and establishing an in-country production of quality seedlings

3. Improving quality controls and introducing traceability of products in the downstream part of the value chain. In particular, a quality control facility for essential oil should be established and traceability of wild MAPs ensured, to prevent overexploitation of natural resources.

4. Providing a better flow of market information to exporters and helping them to target better their promotion activities. At the present stage, these actions would be sufficient to facilitate access to market of leading operators, as the main problems are now in the upstream part of the value chain.

5. Investments in governance (i.e. defining standards, restructuring the system of quotas and controls for wild MAPs collection, giving a role to public institutions in quality control of essential oils etc.) are also quite important. The processors/wholesalers association must take a much more active role and invest some resources in supporting the establishment of a system of services to value chain operators and to build up a consolidated knowledge base for a sector whose economic importance is not matched by a corresponding production and dissemination of information useful to orient the food chain actors.

1. INTRODUCTION

1.1 SCOPE OF ANALYSIS

This document provides an analysis of the Albanian Medicinal and Aromatic Plants (MAPs) value chain and relevant development trends, with the purpose of identifying the main points of strengths and weaknesses of the sector, the opportunities and constraints and threats to further development and providing some suggestions and priorities for improvement.

Notwithstanding the importance of MAPs for income generation in poor areas and for Albanian trade balance ( ), data and information on MAPs are scarce, scattered and incomplete, especially in the upstream segment of the value chain. This study is therefore largely based on information provided by the main Albanian operators, on international trade statistics and on foreign information sources.

Since an overall consensus has been found among the main operators on the priorities for sector development, particular attention has been devoted in analysing the consistency of such proposals with the market, in a global competition perspective, as Albania is an important player in the world MAPs market. Priorities have been also analysed in relation with the expected evolution of sector governance, as the problems in sector governance negatively affect the expected impact of many otherwise fruitful options.

1.2 METHODOLOGY OF THE SECTOR ANALYSIS

The MAPs sector analysis is based on review of existing secondary data (statistics, reports, other literature) and on primary data collected through interviews with value chain operators.

All the main exporters were interviewed, together with collectors and value chain operators in the regions of Malesia e Madhe, Shkodra Korce, Elbasan, Vlora and Peshkopi.

Secondary data are mostly available as aggregated ones, with the exception of US import statistics and for some EUROSTAT data, as detailed below.

Albanian statistics are not very reliable and it does not appear possible to obtain detailed data on export by type of MAP, as most shipping as simply recorded as "Medicinal herbs". So data provided by INSTAT are only at aggregated level, and it is not possible to obtain reliable data at product level (i.e. sage).

The last year for which exact figures are available for each MAP is 1991, when the whole value chain was still totally controlled by the State.

Data obtained from UNSTAT were at HS 4, thus provided even a more aggregated level of data, which could be used just to assess the total value of exports of MAPs.

European international trade statistics, typically represented by EUROSTAT, do not provide detailed data for MAPs – the most detailed level of data is HS – 6, which enables us to obtain data of international trade for the group of MAPs in general, but not for specific product (i.e. sage). Specific data are provided only for relatively less important MAPs, such as juniper, fennel and anise. The only major Albanian exported MAP separately detailed in Eurostat HS6 is Thyme, recorded together with bay leaves.

The US databases of international trade (in the case of food and forestry products, point of reference is USDA), do provide data also at HS – 10 level, enabling to obtain data for some specific products too. Therefore, the analysis of exports to USA is more detailed (at product level) than the analysis of the exports to EU.

For other MAPs it is more difficult to obtain detailed data at product level.

Time series obtained through USDA and EUROSTAT databases include only partial data for 2009 – up to October or November (notes are provided in each case, such as "J – N" or "J – O", implying January – November or January – October, respectively) as the data for the later months or the total of the whole year were not yet available (usually data are published in a time lag of a quarter or so).

1.3 RANGE OF PRODUCTS

Even if the range of MAPs collected in Albania is quite large, the most important products in terms of volume and value are no more than four to seven ( ). The analyses have been therefore mainly focused on such products.

Table 1.1 below provides a list of the MAPs most commonly collected and traded in Albania, showing the Latin name, the English and the Albanian one.

TABLE 1: MAIN HERBS AND SPICES EXPORTED OR SOLD IN DOMESTIC MARKET

Latin Name	Name in Albanian	Name in English
Capsella bursa-pastoris	Shtraper	Shepherd's-purse
Capsicum	Spec djeges	Chili pepper
Centaurea Cyanus	Cian	Cornflower
Chamaimēlon	Kamomil	Chamomile
Cinnamomum verum	Kanelle	Cinnamon
Cirsium	Fare Gjembaci	Thistle Seed
Coriandrum sativum	Koriander	Coriander
Crataegus Oxycantha	Lule Murrizi	Hawthorn
Crocus sativus	Krokull	Saffron
Curcuma longa	Kurkume	Turmeric
Cynarae Folium	Argjinare	Artichoke
Foeniculum vulgare	Finok	Fennel
Gentiana	Sanzi	Gentian
Hypericum perforatum	Lule balsami	St John's wort
Juniperus Communis	Dellinja e Zeze	Repanda juniper
Laurus nobilis	Gjethe dafine	Bay Laurel/Bay leaves

Lavandula	Lavendul	Lavender
Malus Sylvestris	Molla e Eger	Wild Apple
Melissa officinalis	Bar Blete	Lemon balm
Mentha piperita	Meander i bute	Peppermint
Myristica	Arremyshk	Nutmeg
Ocimum basilicum	Borzilok	Basil
Orchis Mascula	Salep	Salep
Origonum Vulgare	Rigoni i Zakonshem	Oregano
Petroselinum crispum	Majdanoz	Parsley
Pimpinella anisum	Anasoni	Anise
Primula Veris	Agulice	Cowslip Genus
Rosa Canina	Trendafil i Eger	Dog Rose
Rosmarinus officinalis	Rozmarine	Rosemary
Rubus fruticosus	Manaferra	Blackberry
Salvia Officinalis	Sherebele	Sage
Sambucus Nigra	Shtogu	Elderberry
Satureja Montana	Trumez	Winter savoury
Sideritis Syriaca	Caj Mali	Mountain Tea
Syzygium aromaticum	Karafil	Clove
Taraxacum Officinale	Flete Qumeshtore	Dandelion
Thymus serpyllus	Zhumrica	Thyme
Tilia Cordata	Lule Bliri	Small-leaved Linden
Tussilago farfara	Thunderz	Coltsfoot
Urtica Dioica	Flete Hithre	Stinging nettle
Vaccinium Myrtillus	Boronice Frut	Blueberry
Vanilla	Vanilje	Vanilla
Viscum album	Veshtull i bardhe	Viscum album
Zingiber officinale	Xhinxhefil	Ginger

2. DESCRIPTION OF THE INDUSTRY

2.1 IMPORTANCE OF MAPS SECTOR IN ALBANIAN RURAL ECONOMY AND SOCIOECONOMIC RELEVANCE

2.1.1 IMPORTANCE OF MAPS FOR THE ALBANIAN ECONOMY

Medicinal and Aromatic Plants (MAPs) is a major agri-forestry business in Albania, especially in terms of international trade. More in general, Balkan countries are a major source of raw material or half finished products for many EU and US industries in different fields (food and beverage industry, healthcare, cosmetics & perfumes, additives etc.) and Albania, together with Bulgaria, is the main supplier. Since 2000 exports keeps increasing and in 2008 scored over 8,367 Mt, for a value of 23 m. USD (UNSTAT), 60% of which shipped to Germany and USA. Exports of MAPs account for 60% of total exports of forestry products. A small but increasing flow of export of essential oil is also recorded, as the processing capacity in the country is also increasing. In comparison, the domestic market is much more limited. MAPs are widely used by individuals for cooking, preparation of herbal tea or traditional medicine; the industrial use of MAPs is extremely small and limited to the packaging of some herbal tea and to the small scale extraction of essential oils. No production of detergents, cosmetics or industrial medicines based on MAPs is recorded.

2.1.2 ROLE OF MAPS IN THE ECONOMY OF SILVOPASTORAL COMMUNITIES

MAPs are found and collected all over the country, but some areas have a reputation for higher quality and/or abundance of products such as: Malesia e Madhe, Shkoder, Skrapar, Elbasan, Korce, Berat, Permet, and Durres. In these districts the harvesting and consolidation system is also more organized.

Collecting wild MAPs is an important activity and source of revenue for a large number of rural families, although it is in almost all cases a part time activity. Collection of main MAPs is made mostly between July and August, i.e. after the main period devoted to small ruminants breeding ( ) and before the season of edible nuts.

Estimates of people involved in the sector range between 75,000 ( ) and 100,000 ( ), making MAPs the most important forestry sub-sector in terms of involvement of members of silvopastoral communities. Almost all families in these communities get a significant share of their income from MAPs collection.

Considering the average size rural families in Albania (4.8 members) and the fact that more than one family member is usually involved in MAPs collection, it is possible to conclude that 15% to 20% of rural families in Albania get a share of their revenues from MAPs collection. Such share is much higher in inner and mountain areas, where most rural families are involved in such activities. In northern rural Albanian households, revenues from MAPs collection may account for 17% of the family income; more specifically, sage may generate about 10% of the family income, as shown in a 2007 socio-economic study in the region of Shkodra ( ). MAPs are the main source of income for the poorest segments of population in inner and mountain areas.

Malesia e Madhe is one of the districts where collection of aromatic and medicinal plants is a mainstream activity of the farmers. Around 80% of the farmers are involved in some degree with MAPs harvesting and collection. According to leading entrepreneurs interviewed , families involved in silvopastoral activities in this district generate around 60% of their income from MAPs harvesting.

The number of working days devoted to collection of MAPs changes according to the importance of the activity at the local level, but it can be prudentially calculated in 25 to 30 working days per year per family member involved, without considering the post-harvest work for drying, first sorting etc.

2.2 MAIN PRODUCTS

2.2.1 WILD MAPS

The most important MAP for the sector business is by far ***sage***, which accounts for about 50% of all exports (with an estimate flow of 2,000 to 2,500 Mt per year) and for most of the MAPs processed for essential oil production (about 35 to 40 Mt essential oils produced in total per year).

Other main products are: ***oregano***, ***thyme*** and ***savoury***. The importance of savoury is declined in the years: according to the sector analysis produced in 2003 ([1]) savoury was the second most important export item, with an estimate annual flow of 750 Mt of dried products. At present, the estimated exported quantity ranges around 600 Mt, while export of the other main items is increased. Until 2008 most exporters were more interested in oregano and wild thyme, as margins were higher and demand more dynamic. However, in 2009 also prices of oregano went down substantially.

Each of the above four products has a peculiar point of strength as compared with the same herbs produced in other countries; in particular: i) the average quantity of essential oil in Albanian sage is higher than in neighbouring Mediterranean countries; ii) the subspecie of the Balkan oregano (*Origanum Vulgare Viridulum*, so called "white oregano") is different from that one commonly found in Italy and better for use as dried herb than other varieties of oregano more common in Greece and Turkey (*hirtum* and *gracile*, also known as "red oregano"); iii) the quantity and quality of wild thyme that can be found in Central and Southern Albania is better than in most other Mediterranean countries.

The four above mentioned MAPs are consistently exported in hundreds (oregano, thyme, savoury) or thousands (sage) MT, representing the core business of Albanian MAPs. These products keep also the market leadership in some key export countries: for example, more than 50% of all sage imported by the USA comes from Albania, as well as 70% of all the wild thyme imported in Germany, the main European market for MAPs. For these products, the shifting of prices in Albania can affect the World prices.

Other products experience a much more variable demand, depending from price, and availability of other sources and more complex cost/opportunity evaluations of international traders: for example, in 1996-1998 Albania was a leading exporter of St. John's Wort, whose demand was at time in full expansion. At that time, exports scored up to 5 m USD per year. Afterwards, prices steeply declined as production increased in other countries and demand stagnated; Albanian St. John Wort became no more competitive and nowadays exports score around 100 Mt per year or less. The market of rosemary is also declined.

[1] "Social and Economic Relevance of NTFPs in Albania"

In the last two-three years, the MAPs which are in high demand in addition to the main four ones are wild apple and juniper. In particular, the present demand of wild apple is particularly high (estimated in 600 to 800 Mt per year), making wild apple the second most important exported MAP in 2007, after sage.

After a certain period of good demand, the demand of Gentian is not particularly strong.

Some products which have a more limited, but consistent demand (100 to 200 Mt) are lavender and dog rose.

As a whole Albanian exporters are widening their range of exported products, as problems of sustainability in wild MAPs harvesting are causing a reduction of supply, pushing up prices at collection level and reducing margins along the value chain; so far, the increase of prices has more than compensated the reduction of demand, so that total turnover is increased, even if total profit of exporters is diminished. To compensate this trend, Albanian exporters are widening their range of products to maintain the same turnover in quantity and to recover profitability.

The exact levels of MAPs production, is also difficult to assess. The two studies performed in 2003 ( ) provided different estimate (the one of ANFI being based on 1990-1991 data, the last year in which exact figures are available for each MAP).

The information collected during the present survey and referred to the period 2007-2009 are the result of the figures given by the exporters and of the estimate of total production made by the leading operators. In some cases, processors and exporters were not willing to share all the information they had, and not all the information they have is accurate (for the estimates at national scale). The 1990 data and the estimates for 2003 and 2007-2007 are indicated in table 2.1 below.

TABLE 2.1: ESTIMATE EXPORT OF MAP, BY TYPE IN MT

MAPs species	ANFI 1990 [2]	FANC 2003[3]	DSA estimates 2007-2008 [4]
Sage	1,200	1,500	2,000 – 2,500
Oregano	620		500
Thyme	106	300	300 – 350
Repanda juniper			250 – 320
Wild Apple		110	600 – 800
Coltsfoot		100	300
Lavender		130	100

[2] Project "Albanian National Forestry Inventory"

[3] German Federal Agency for Nature Conservation

[4] These are estimates calculated on the basis of information obtained through interviews with the main exporters and processors.

Bay leaves		330	
St John's wort		140	
Viscum album		130	
Rosemary		130	
Shepherd's - purse		115	
Winter savory	390	105	

Source: Author's estimation based on data provided by Konstandin Koco, AAC Program.

2.2.2 CULTIVATED MAPS

During the planned economy, several MAPs were planted on a fairly large scale by some co-operatives: sage, thyme, oregano, lavender and rosemary. Once the land had reverted to private property again after 1991, the cultivation of MAPs almost ceased to exist. However, from the late 1990s, competition for steady supplies of raw material and the decrease of collection of wild MAPs has pushed trading companies to stimulate the cultivation of MAPs.

Accurate data on volumes and species of MAPs cultivated in Albania are difficult to obtain. Table 2.2 presents some cultivation figures from 2001 reported by another source.

TABLE 2.2: MAIN MAPS SPECIES CULTIVATED IN ALBANIA [5]

Plant	Estimated area of cultivation in 2001 [ha]
Rosemary	600
Lavender	400
Thyme	370
Coriander	250
Basil	150
Winter Savory	107

We interviewed the most important players of the sector and could get only estimated figures of MAPs cultivation. Based on those figures it is not possible to make reliable overall estimates about cultivation in the whole country. However, based on the figures we could collect, the numbers reported in Table 2.2 above seem to be exaggerated.

[5] Medicinal and Aromatic Plants in Albania, Bosnia-Herzegovina, Bulgaria, Croatia and Romania, Federal Agency for Nature Conservation 2003.

TABLE 2.3: PROCESSING COMPANIES STIMULATING MAPS CULTIVATION

Companies	MAPs cultivated
Albania Herb sh.a.	Oregano, Sage
Alb-ducross sh.a.	Sage
Xherdo	Sage, winter savory, thyme
Mucaj shpk	Lavender, thyme
Elba-Shehu shpk	Cornflower, dandelion, gentian, cowslip genus
Herba-Fruktus shpk	Cornflower, oregano
Alfons Cici	Thyme
Gjergji Cibuku	Cornflower, poppy, lemon balm, and dandelion

The most cultivated MAPs reported by the interviewees are sage, oregano, thyme, and lavender. Processors have managed to stimulate their cultivation by distributing seeds for free to farmers who regularly supply them in order to increase production and their own supplies with select MAPs. Processors sourced seeds from their buyers. The major need for technical assistance the entrepreneurs mentioned is land rotation especially for thyme. Land cultivated with MAPs has to be rotated and farmers need the support of specialists in this process. Another challenge is the replacement of old varieties of MAPs with new varieties, which are demanded in foreign markets. For example, lavender cultivated is an old variety and not any longer in demand in foreign markets[6].

Sage

As sage is the main MAP exported, there has been interest in its cultivation from both processors and donor projects. According to Kujtim Zere, cultivated sage is good to be sold for consumption, but not as good as for producing essential oil as it does not have as high oil content. Cultivated sage also does not last as long as the natural one, it lasts only two years. Other MAPs such as oregano, thyme, and rosemary last for many years[7]. Islam Laci from the Shkodra Institute of Forestry says that cultivated sage has lower ratio of essential oil but the yield is 15-20% higher than the naturally grown sage.

According to Skender Ujka, it is cost-effective to cultivate sage because there is still a good price for and it requires less agronomic services. However, he notes that the change of MAPs prices in the international markets every year, generates instability and it does not stimulate farmers to cultivate MAPs.

[6] Interview with Vasel Mucaj.

[7] Interview with Kujtim Zere, Manager of Albania Herb sh.a. MAPs processor and exporter, Durres.

Albania Herb sh.a. reports that it has supported the cultivation of 40 ha of sage all over the country. An estimated surface area of 50 ha is cultivated in Malesia e Madhe with sage in the last 8 years[8]. Albducross has been one of the first companies to stimulate sage cultivation in in Malesia e Madhe. Several processors and collectors in Malesia e Madhe are involved in the cultivation of sage including Alfons Cici (Shkodra), Haxhi Bercaj (Koplik), Fahrie Zenelaj (Koplik i Siperm).

TABLE 2.4: ESTIMATED YIELDS OF CULTIVATED MAPS

MAPs	Yield of Cultivated MAPs per dynym in Kg[9]
Sage	250-400
Oregano	250-400
Lavender	100-130
Thyme	150-180

Oregano

Oregano is one of the MAPs for which there was great interest in the last years. It is found naturally in Elbasan, Berat, Vlora, Tirana and Peqin. The cultivation of oregano is particularly profitable as it can produce 4 times a year with irrigation and 2 times without irrigation[10]. In 2008, purchase price was 250-280 lek per kg, while selling price varied in the range 3.5-6 euro depending on the degree of processing. The companies that do not process it sell it for 2.8-3.5 euros, while Albdycros sells it for 5 euros per kg. It is exported to USA, Germany, France, Spain[11].

Cultivation of white oregano is a new initiative that was supported mainly by Albanian Herb. The company confirms it has supported the cultivation of 120 ha of white oregano all over Albania until 2008, of which an estimated 30 ha are cultivated for the first time in Malesia e Madhe (in this district grows naturally the red oregano, for which there is no market demand). In Malesia e Madhe, 16 ha are cultivated by Xhemal Hasani on order by Albanian Herb sh.a. this year. Albanian Herb sh.a. provided Xhemal with the seeds and some technical assistance. Xhemal had the first harvest with a yield of 300 kg per dynym in 2008. The produce would be sold to Albanian Herb sh.a. for the price of 175 lek per kg. An estimated surface area of 20 ha was also cultivated with oregano in Elbasan stimulated by Herba-Fruktus shpk[12].

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[8] Information on cultivation in Malesia e Madhe is compiled based on interviews with Islam Laci, Institute of Forestry, Shkodra, Alfons Cici (MAPs collector), Vasel Mucaj (MAPs processor), and Xhemal Hasani, MAPs cultivator, Shkodra.

[9] These figures were compiled out of interviews with Albanian Herb sh.a. and Relika shpk managers.

[10] Interview with Myslim Pepa, MAPs collector, Durres.

[11] Interview with Emin Koldashi, Herba-Fruktus, MAPs processor, Elbasan.

[12] Interview with Emin Koldashi, Herba-Fruktus, MAPs processor, Elbasan.

However, in 2009 prices in foreign markets fell and the company could not collect oregano from cultivators and sell it in foreign markets. If in 2008 oregano was collected with 250 lek, in 2009 the price was very low as Turkey was already exporting with 1 USD/kg. So, Albanian Herb company failed with the project of oregano cultivation in Albania.

Thyme

In **Table 2.2** above it is estimated that 370 ha of thyme are cultivated all over Albania. Through our interviews we are reported that an estimated 120 ha of thyme are cultivated in Malesia e Madhe. Alb-Dycross and Mucaj are two processors that have stimulated successfully the cultivation of thyme. The price of thyme stimulated farmers to cultivate it. Each farmer has cultivated an average 0.5-1 dynym.

According to Kujtim Zere, of Albania Herb sh.a., natural resources of thyme and winter savories are sufficient to meet international market demand. As thyme exports are not very high (100-300 Mt), this statement seems to be correct.

Lavender

The study by Federal Agency for Nature Conservation reports an estimated 400 ha cultivated with lavender. Through our interviews we identified that an estimated surface area of 40 ha is cultivated with lavender in Malesia e Madhe. The cultivation of lavender was stimulated by the leading processor of the region Vasel Mucaj.

Cornflower

According to processors interviewed, there is a high demand in Germany and USA for cornflower. German companies process it and export it to USA. It is sold both in petals and in cubics. According to Xhevdet, the ratio of cubic cornflower to cornflower in petals is 3 to 1[13]. Selling price in 2008 for petals has been 10-18 euros per kg. Selling price in cubics has been 5-7 euros per kg[14]. It is estimated that an average quantity of 100-140 tons in cubics is exported each year mainly from Elba-Shehu and Herba-Fruktus shpk, both based in Elbasan.

The two main companies that have supported cornflower cultivation include Herba-Fruktus shpk (80 ha) and Elba-Shehu shpk (20 ha). The plant requires cool climate conditions and grows naturally in Diber, Kukes etc. However, Herba Fruktus is not supporting cultivation any longer since 2009 as market prices fell.

Dandelion

An estimated 50 tons is exported from Albania each year. There is continuous demand for this plant in foreign markets. It is found in the plains of Korca and Dibra. It is profitable to cultivate it as it produces

[13] Interview with Xhevdet Shehu, Elba-Shehu shpk, Elbasan

[14] Interview with Emin Koldashi, Herba-Fruktus shpk, Elbasan.

every year. Elba-Shehu shpk has cultivated 4 ha with dandelion in Elbasan district. Elba-Shehu and Herba-Fruktus are the main processors that export dandelion.

Wild Apple

Wild apples are also a plant for which there is international market demand and there is growing interest. An estimated 600 tons is exported annually, mainly from Albdukros, Herba-Fruktus and Gjergj Cibuku. Among the processors interviewed, Vasel Muca says that this year it will also start the cultivation of wild apple as there is market demand for it – it is widely used for tea.

2.2.3 ESSENTIAL OILS

Currently, Albania produces annually between 35 and 40 tons of essential oils, which are produced from an estimated 15 small, medium and large processing companies. Each of these companies has a distillator operating with steam technology. The main essential oils produced include sage, juniper, oregano, thyme and winter savoury essential oils.

2.3 MAIN ACTORS IN THE MAPS VALUE CHAIN

The sector of MAPs collection and processing is organized into three main levels, as shown in **diagram 2.1** below. The levels are the following:

1. *Harvesters and producers of cultivated MAPs;*
2. *Collectors and consolidators*, divided in the two sub-categories of *individual collectors* and *regional collectors;*
3. *Processors and exporters* of small, medium and large size.

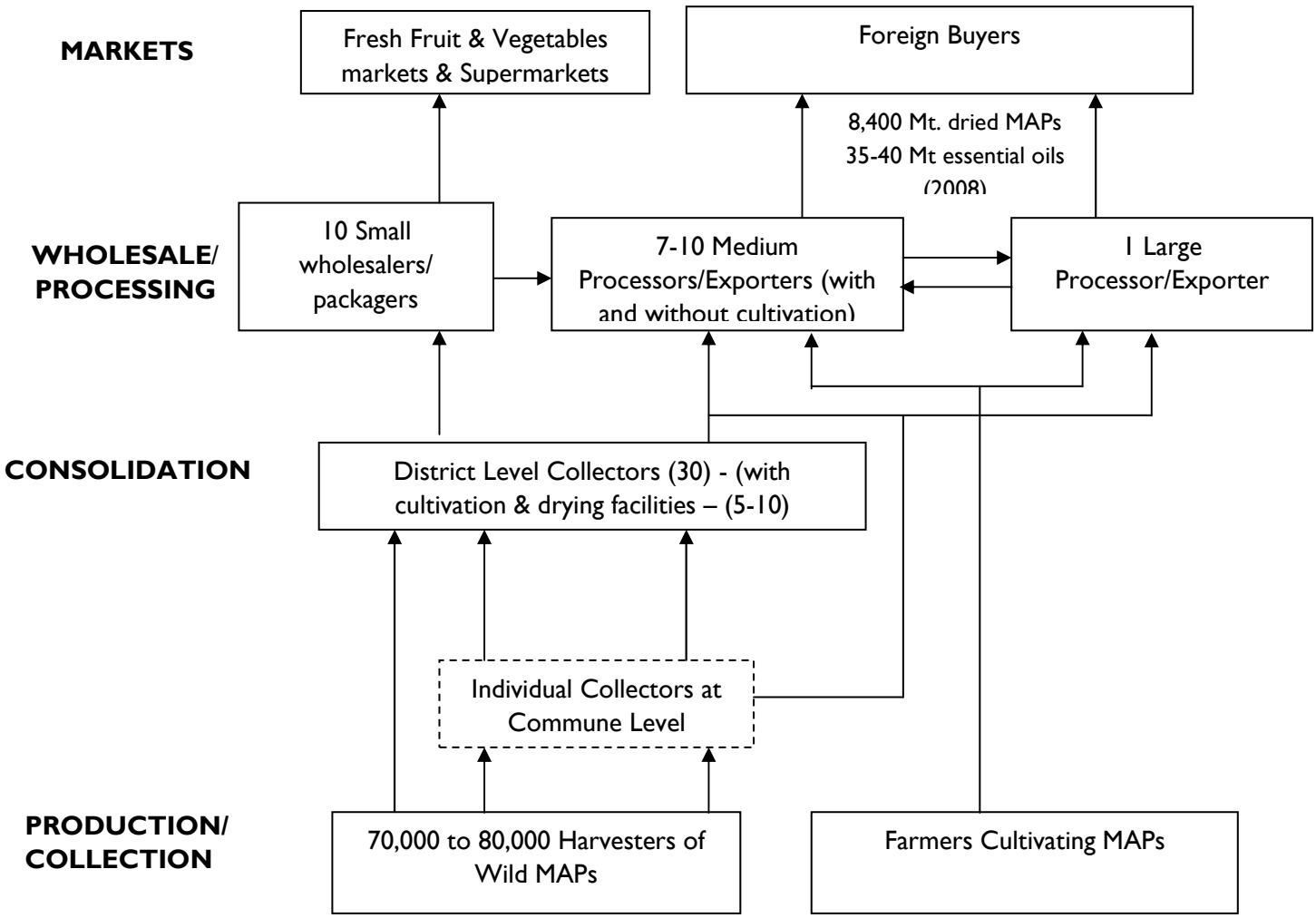
Each level is articulated in different typical profiles, which depend on the size and on the specialisation. The division of value chain operators in the three above mentioned categories is not totally clearly cut, as there are some exporters who have their own collecting facilities and some collectors who are occasionally exporting, but in general the business of each category of operator is sufficiently standardised.

- *Harvesters* are people living in the rural and mountainous areas of the country. They harvest wild MAPs in the areas where they live, dry and store them in their homes until they sell them to a local collector or processors.
- *Individual collectors* are people living in communes who act as mediators between regional collectors and processors and harvesters. They disseminate price information to harvesters and are key people serving as regulators between harvesters and the major collectors or processors. They do not have warehouses.
- *Regional collectors* are based in the districts and purchase MAPs from harvesters and store them in their own warehouses. This category of businesses does not have processing lines. Typically they rent or own old warehouses of former state co-operatives with a surface area of at least 200 m². They collect a range of 20-150 tons of MAPs a year. In the whole country it is estimated to operate around 30 regional collectors. Many of them have invested in drying facilities and in cultivation of MAPs with their own capital.

- Small processors trade on average between 150 to 500 tons of MAPs a year. They have basic processing or packaging lines. They include companies that sell MAPs to the domestic market such as mountain tea and other spices used in cooking. Sometimes these companies have also managed to export to foreign buyers, however, there is no continuity and these transactions do not represent established relations with foreign buyers. These companies supply the large processors with collected MAPs. Here are included companies such as Tealb shpk, Keka shpk, Galen shpk, Zagora shpk, Gjergj Cibuku, Orlando shpk, etc. Some of these companies have also invested in the cultivation of MAPs such as Galen, Gjergji Cibuku etc.
- Medium processors trade on average between 500 and 1500 tons of MAPs a year. There is a group of 7-8 such companies including Filipi shpk, Xherdo shpk, Mucaj shpk, Elba-Shehu shpk, Albanian Herb ShA, Relika shpk, Herba-Fruktus shpk and ATC shpk. These companies have managed to establish links with foreign buyers and export on regular basis. They compete between each other and Albdukross for MAPs collection. They have invested in cleaning lines and lines producing essential oils. They are the leaders in supporting cultivation of MAPs in order to secure stable supplies. They are supplied by regional collectors from all over the country but also go to harvesters' villages with their own trucks to be supplied directly by them. Many of these companies also have stimulated groups of farmers to cultivate MAPs.
- In the group of large processors we can include only Alb-ducross, which trades an estimated quantity of 1,600-2,500 Mt of MAPs per year. This accounts for a considerable portion of Albanian exports of MAPs abroad. Alb-dukros is supplied by collectors from all over the country, agents to whom it pays for their operating expenses, cultivators of MAPs (who sell to them directly), and by small and medium processors. It has more advanced processing line and can charge higher prices for processed MAPs to foreign buyers than the other processors.

Detailed profiles of each category of operators are provided in **chapter 3** below.

DIAGRAM 2.1 MEDICINAL AND AROMATIC PLANTS (MAPS) VALUE CHAIN MAP



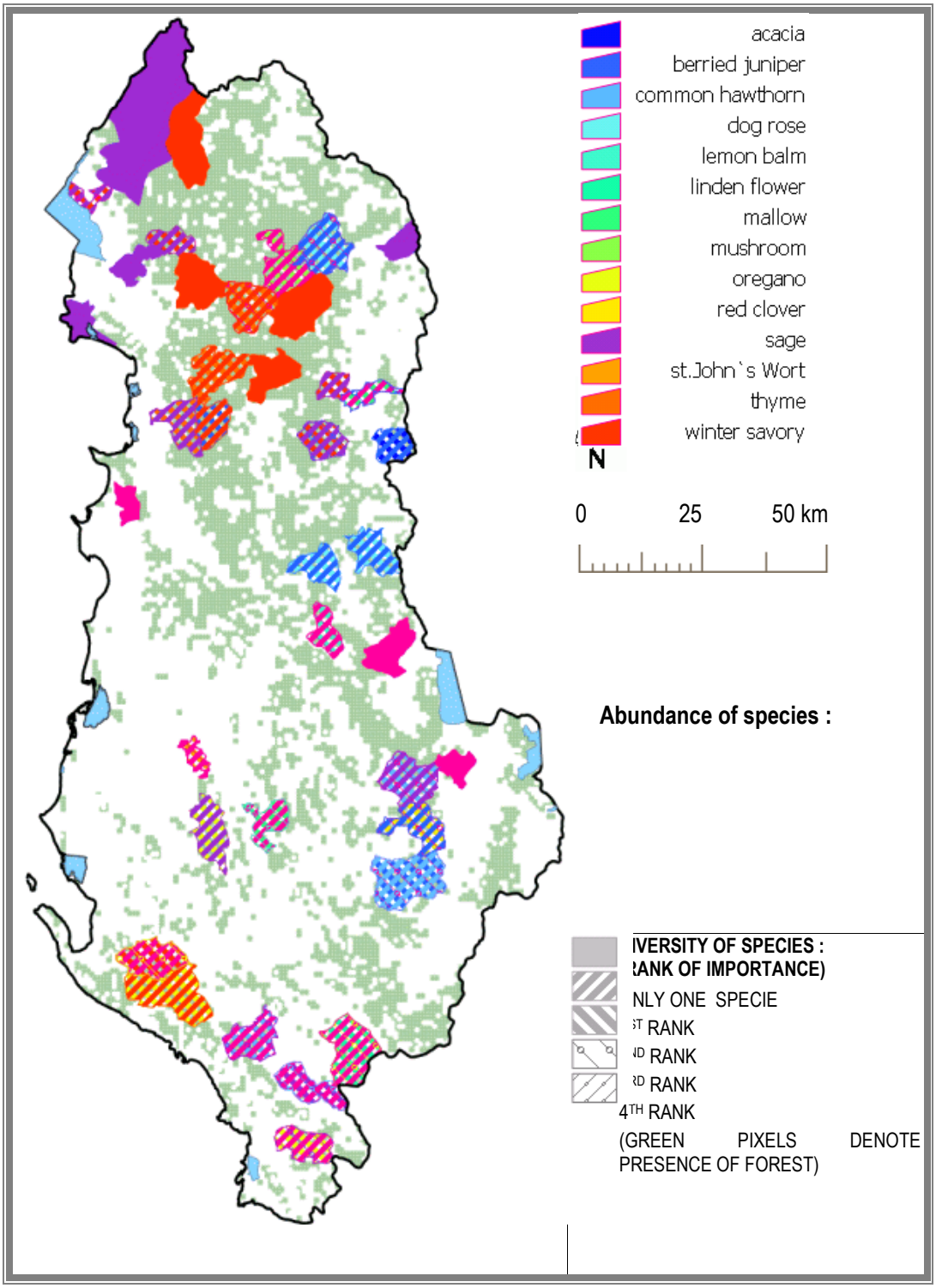
2.4 GEOGRAPHIC DISTRIBUTION OF PRODUCTION AND COLLECTION

Most MAPs are present on the whole territory of the country, and differences are mostly related to the altitude and to other local climatic conditions. However, it is generally accepted that sage and savoury are more abundant and of better quality in the North (Malsia e Madhe, Lezha and some areas between Dibra and Peshkopi for sage, Southern part of Shkodra region for savoury), while oregano and thyme mostly come form Southern-Central Albania (Skrapar and internal areas of Fier and Vlora). Other important collection areas are in the region of Korca, while Gjirokaster is particularly reputed for the production of the "mountain tea".

The biodiversity is generally rather high, except for sage and savoury, which has an impact on standardisation and difficulty of quality controls of the other herbs. Moreover, the introduction of new species used for cultivation brings the risk of endangering some indigenous taxa of particularly high commercial and environmental value.

The most complete and recent map of the distribution and diversity of species of Albanian MAPs available for publication remains that one produced by FAO, reproduced, below. Anyhow, some large

CHART 2.2: GEOGRAPHIC DISTRIBUTION AND BIODIVERSITY OF MAPS IN ALBANIA



Source: FAO

3. PROFILE OF MAIN OPERATORS IN THE MAPS VALUE CHAIN

3.1 HARVESTERS OF WILD MAPS

Most MAPs harvesters are people living in the rural and mountainous areas of the country. They harvest in the areas near their homes using sickles and dry by laying them on plastic sheets in the floors of their houses or on stones in the mountains. Drying takes place in sunlight. Harvesters store them in their houses until collectors go and purchase them.

Harvesters sell MAPs to collectors of their district. When harvesters are located within a range of 25 km, processors buy collected MAPs directly from them. However, in the last two years, as a result of increased competition for wild MAPs, processors go to harvesters in distant villages and purchase directly from them MAPs bypassing collectors. Processors even stimulate harvesters who have left the rural areas to go back to these areas in collection season time and to harvest wild MAPs providing them with samples .

According to collectors interviewed, one harvester can collect an estimated 15 kg of natural sage per day. Collectors may buy from each harvester even a sack of 30 kg, if there are many harvesters in the same village with quantities of MAPs, or may wait until one harvester who is located to a certain distance has accumulated up to 1 Mt. There are farmers who have constructed new large houses, and who can store up to 30 tons of MAPs. This enables them to store them and to sell after a longer period, which may have effects on the quality of MAPs collected .

The main problem with collection of MAPs includes the early harvesting and harvesting of herbs removing the stalks. Eager to harvest as much MAPs quantities as possible, harvesters do not follow proper harvesting practices. While sage ripens in the beginning of July, farmers harvest it in June and sell it in July. The increasing number of unlicensed collectors will buy herbs even if they are of weak quality. So harvesters are encouraged to collect early and do not implement proper harvesting practices. This not only affects the quality of MAPs collected but also causes damage to the wild MAPs.

Another problem is that harvesters use sickles to harvest sage and end up cutting the whole plant. Harvesting should be made manually so that the leaves are collected while the body of the sage plant is left intact . Another problem is that sage should be dried in shadow, and not exposed to sunlight. Most harvesters lay sage collected in plastic sheets to be dried in open nature and sunlight. Alb-ducross also confirms quality problems for key products such as thyme, oregano and winter savory. These MAPs are often not collected in the right time, poorly cleaned and dried. There is a recent trend, however, that regional collectors have invested in drying facilities within their warehouses and use them to dry MAPs they have cultivated but also wild MAPs purchased from harvesters.

On the other hand, in mountainous areas where population has left, collection of wild MAPs has decreased. This also has a negative effect because when wild MAPs are not harvested, they decompose.

Where the population has increased, MAPs are ruined because harvesters harvest them too early. Processors say in these areas the cultivation of MAPs should be stimulated .

Some of processors interviewed reported that they have started to import MAPs from Montenegro and Bosnia, as the quality of these MAPs is as high as it used to be in communist times .

3.2 CULTIVATORS

There is a small number of cultivators of MAPs. They cultivate mainly sage, oregano, lavender, thyme, and cornflower. These cultivators are stimulated by medium and large processors with seeds and with a commitment to purchase the MAPs produced. The main processors that have stimulated cultivation include Albania Herb, Alb-ducross, Mucaj, Xherdo, Elba-Shehu, and Herba-fruktus. Of these processors, Herba-fruktus stopped stimulating cultivators in 2009. Cultivators of MAPs generally supply directly processors with whom they have made either formal or informal agreements.

Processors interviewed suggest cultivating these MAPs: lavender, thyme, rosemary and MAPs with one year cycle such as cornflower, poppy, lemon balm, and dandelion. They suggest cultivating sage only to compensate for the extent that collection of wild MAPs decreases. Prior to cultivation, the soil analysis must be completed.

Vasel Mucaj notes that a problem for cultivated MAPs are the traditional seeds, which are old and do not have the same quality as before. These varieties are not in demand any longer in foreign markets. Vasel is looking to purchase seedlings from his buyers in France and distribute it to cultivators in the region. To those with whom he has a trustworthy relation, he will give for free, to others he will sell. In 2006 he gave for free to MAPs cultivators lavender seeds, which they cultivated and sold to him the production. Vasel says that in the domestic market there are no regular suppliers of MAPs seeds and seedlings. Only an input supplier for agriculture such as Agroblend has sold MAPs seeds, but which are not certified. It is mainly processors that have stimulated the cultivation of MAPs by sourcing seeds from the buyers and providing them to cultivators .

Processors say also that cultivators need to be equipped with harvesting machines. Harvesting by hand and hard raining deteriorate the quality of MAPs cultivated. These machines will enable the timely harvesting within July 1-15 and will not allow bad weather conditions to influence the quality of MAPs. For example, last year, raining deteriorated the quality of cultivate lavender as it took away its color. The use of a harvesting machine would reduce waste in quantity and quality by 30-40% .

Cultivation of oregano was not a successful story in 2009. One of the main companies that supported it was Albanian Herb, with an estimated 120 ha. These efforts were made in 2007 and 2008. However, as the prices in foreign markets in 2009 were low, oregano produce could not be sold and it did not give a return on the investment of cultivators and the processors.

A recent trend is that regional collectors and small and medium processors are also engaged in cultivation with the purpose of securing a steady supply of MAPs that can compensate for the declining quantity of wild MAPs. Seeds are purchased from buyers and there is not regular supplier of seeds for MAPs in the country. For example, Flamur Hajdinaj, a regional collector based in Permet has cultivated 3 ha with sage, oregano, lemon balm and mountain tea. Alfons Cici, a medium processor based in Shkodra has also cultivated 3 ha with thyme.

3.3 COLLECTORS

Collectors can be divided into individual collectors and regional collectors. Individual collectors are people living in communes, which link regional collectors and processors to harvesters, playing the function of local agents. Collectors and processors have a link with at least one individual agent per commune. Good personal relations with such people are very useful for regional collectors and processors to have access to as many harvesting families as possible. However, these collectors do not have warehouses - they only liaise between the regional collectors/processors to harvesters.

Regional collectors play the function of consolidators in each district by collecting MAPs from thousands of harvesters and by storing them in their own warehouses. A regional collector may operate in more than one district, typically in several districts using personal connections with individual collectors and harvesters. In each qark there are at least 2-4 main collectors who may collect each an estimated 20-100 tons of MAPs annually. Malesia e Madhe is an exception with around 6-10 collectors. In the whole country there are about 30 regional collectors.

Collectors buy from harvesters and store the MAPs in their warehouses, which are typically warehouse buildings of former state owned co-operative. They sell them to the major processors and charge an average 10% margin. However, margins may vary from region to region, depending on the competition. For example, two collectors interviewed from Malesia e Madhe responded that their margin is only 10 lek per kg of MAPs traded. This district has the highest number of collectors in the country who compete for the collection of MAPs. Sometimes major processors lends capital in advance especially for key products (Elba-Shehu has done so for cornflower, oregano, hawthorn, dandelion, and blueberries). When collectors supplying use Elba-Shehu company's capital earn an average of 5-10% margin, whereas when they use their own capital may earn a higher 15-20% margin.

Almost all processors and collectors interviewed confirmed the fact there is a decline in the demographic population in mountainous regions. As a consequence, there is also a decrease in the quantity of MAPs collected by farmers and a decrease of the number of collectors. According to Myslim Pepa, a collector based in Durres, there is 10% annual decline in the collection of MAPs. In 2000, in the Durres district, there used to be 7 collectors, while now there are only 3. For example Myslim does not collect sage any longer. He says that with this pace, in 3 years, he may be forced to go out of this business.

The main factor determining supply transactions between regional collectors and harvesters is the ability of collectors to pay promptly in cash. So, liquidity of collectors during collection season becomes very important. Collectors use their own funds but get capital in advance also from processors with whom they have long-term relations to pay in cash the harvesters. Competition among traders for the procurement of MAPs has disrupted long-tem trade agreements. 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 . For example, Skender Ujka complained that Albanian Herb sh.a. disrupts market prices of sage in Malesia e Madhe. In 2008, if he would pay to collectors 120 lek per kg of sage, Albanian Herb sh.a. offers to pay a higher price (130 lek) just to collect the sage .

The trend of the last three years is the decreasing number of regional collectors as profit margins are squeezed, collection of MAPs is reduced, and increasing competition for MAPs. Major processors visit directly harvesters and send their trucks to the communes to collect MAPs from rural households.

Profile of a Regional Collector: Flamur Hajdinaj, Permet

Flamur is one of the main collectors of MAPs based in Permet and operating in Southern Albania including the districts of Tepelena, Permet, Gjirokaster and Kolonja. In this region there are around 5 licensed collectors.

Flamur is one of those collectors that has engaged in cultivation. He has cultivated 3 ha of MAPs including sage, oregano, lemon balm and mountain tea. He has purchased seeds in Holland and Germany with these prices: sage seeds at 180 euro/kg; oregano seeds at 240 euro/kg; and lemon balm at 150 euro/kg. He has used ½ kg of seeds of lemon balm per dynym. He has trained a former agronomist of fruit and vegetables in MAPs cultivation and hires him to perform services in his plantations for 2-3 months a year.

Flamur has also equipped his warehouse with a space composed of drying shelves of 2.5 m high, 2 m wide, and 15 m long with a surface area of 250 m2. The shelves are made of iron rods and nets and can be used to dry around 60 tons of MAPs per year. This investment has cost him 500,000 lek. Flamur is interested to surround this space with plastic cover and to invest in an aspirator, which would all cost an estimated additional 500,000 lek. The aspirator is useful because it can be used for both cooling and heating.

According to Flamur, in South Albania soil is appropriate to cultivate oregano, sage, thyme, winter savory, lemon balm, rosemary, basil, common apple, small-leaved linden and elderberry. There is no MAPs seeds supplier in the country.

Flamur complains that the number of informal collectors is increasing. They are the first enemy of stable MAPs production as they encourage country people to harvest early and purchase the poor quality MAPs they have harvested. These illegal collectors deceive farmers when weighting their MAPS loads, fill a van of 2-3 tons with poor quality MAPs and try to sell it either to the local collector, or to exporting companies. So, protection of MAPs and supervision of harvesters in the mountains is the main problem to the sustainability of MAPs sector. The profit margin is 20-30 lek/kg.

All interviewees report that at collector level in 2009 there was increased activity of unlicensed collectors. When price in the domestic market increases, the quality of MAPs collected falls due to operations of unlicensed traders.

Regional collectors have established regular relations of supply with processors. However, they are not tied to one single processor. They can supply one processor with one product, and another processor with another product. Or after having supplied one processor with a quantity of a select MAP, they

switch to another buyer for a higher price. However, trust is key in the relations between collectors and processors.

Facing fierce competition for raw material, some collectors are involved in the cultivation of MAPs in order to secure a steady supply. This is the case with Xhemal Hasani or Flamur Hajdinaj from Malesia e Madhe and Permet. When interviewed, other collectors Xhelal Danaj and Rexhep Brojka (regular suppliers of Relika shpk) said that if they were made an offer from a serious processor they are interested to be involved in cultivation. This activity does not disrupt their collection activities as they take place in different seasons of the year.

TABLE 3.1: REGIONAL COLLECTORS OF MAPS IN THE DISTRICTS

Owner	Location
Myslim Pepa	Durres
Luljeta Toska	Berat
Florie Shahu	Corovode
Muhamet Kadiu	Sharove, Skrapar
Luan Oruci	Tepelene
Zyber Gjoni	Peshkopi
Flamur Hajdinaj	Zona industriale, Permet
Toli Bodurri	Elbasan
Xhovan Saraci	Korce
Xhemal Hasani	Malesia e Madhe
Martin Pellumbi	Shkrel, Malesia e Madhe
Ilir Brukaj	Koplik, Malesia e Madhe
Napolon Hajdini	Permet
Safet Dyrmishi	Corovode, Skrapar
Berhan Kukaj	Malesia e Madhe
Lulash Volaj	Malesia e Madhe
Vasel Leka	Malesia e Madhe
Bujar Shaqiri	Shkoder
Metush Elezi	Shkoder
Xhelal Danaj	Malesia e Madhe

Rexhep Brojka	Malesia e Madhe
Avram Binjaku	Elbasan
Shefki Ahmeti	Elbasan

Sometimes major collectors have even sold to foreign companies directly. For example, Myslim Pepa, who collects around 60 tons of MAPs annually, has even exported to Greece and Macedonia oregano, rosemary, winter savory, and peppermint. However, these are sporadic cases and collectors do not have regular trade relations with foreign buyers.

3.4 SMALL PROCESSORS

Small processing companies trade between 100 to 500 tons of MAPs annually. They have invested in processing lines and perform cleaning and packaging operations. They conduct pre-cleaning of MAPs and sell them to large companies or foreign buyers at a higher price than the ordinary collectors. So, they play the role of consolidators similar to regional collectors, however, they conduct added value activities and sell MAPs to medium and large processor at higher price. A typical cleaning line would perform pre-cleaning operations: the removal of stalks, other grasses, dust and stones and other physical external elements. Then the MAPs are pressed and packaged in 50 kg sacks.

Small processors have managed to sell to foreign buyers, however, this does not take place on a regular basis. One exception is the ATC, which is an Albanian-Italian joint venture company exporting MAPs to Italy[15]. ATC and Tealb are also serving the domestic market with various packaged teas. In this group can be included companies such as Tealb shpk, Keka shpk, Galen shpk, Zagora shpk, Gjergj Cibuku, Orlando shpk, etc.

TABLE 3.2: SMALL MAPS PROCESSING COMPANIES

Company	Owner	Location	Telephone Contacts
Galen shpk	Alfons Cici	Shkoder	Tel: 0684090864
Zagora shpk	Haxhi Bercaj	Koplik	Tel: 0211 22294
Erba shpk	Kujtim Keka	Grizhe, Malesia e Madhe	Tel: 0211 22056
Gjonaj shpk	Prele Hasani	Kushe, Hot, Malesia e Madhe	Tel: 0211 22468
Orlando shpk	Tom Arra	Zona Industriale, Shkoder	0224 25329; 0682299858

[15] http://www.albaniatrading.com/kompania.htm

Albania Trading Company (ATC)		Lagja.6 "Maliq Muço", Nr. 1011, Durres	Tel/Fax: +355 52 265080/ 222880; 068 22 33553
	Gjergj Cibuku	Korce	0682067332
Gurra shpk	Mehmet Guga	Tepelene	0672027313
Tealb shpk	Ibrahim Myftari	Tirana	0682099954

Small processors also are involved in MAPs cultivation. Gjergji Cibuku has cultivated 50 ha with MAPs including cornflower, poppy, lemon balm, and dandelion. All of these are MAPs with one year cycle, so the cultivators do not have a high risk of not selling them to a market with varying demand.

Profile of a Small Processor: Galen shpk, Shkoder

Alfons is one of the major processors in Shkodra that has set up his own company since 1994. His background is an agronomist and has worked since 1982 in the former MAPs state enterprise. The main herbs traded include sage, thyme, winter savory, thyme, raspberry, stinging nettle. The company is a medium processor and completes standard cleaning of the leaves. The company processes around 100-400 tons a year and sells it to the major exporters including Albdukros, Mucaj etc. It has not been involved with exporting MAPs abroad.

Galen is supplied with MAPs from harvesters and individual collectors from Shkodra and other Northern districts. There are in every commune individual collectors, which buy from harvesters and sell directly to the processors or collectors because they do not have warehouses where could store collected MAPs. Availability of liquidity during the collection season is instrumental in the quantity collected.

Alfons points out that the domestic production has fallen due to poor harvesting methods, demographic change in mountainous areas, illegal competition and manipulations from the main actors. As a result, Alfons in 2008 has collected 80% of the quantity collected in 2007, and in 2009, 70% of that amount. As demand for MAPs is stable, their cultivation should be encouraged to the extent that they compensate for the reduced production of wild MAPs.

He suggests supporting collectors and cultivators with the cultivation of MAPs as cultivation requires a lot of capital. He suggests completing the soil analysis prior to starting cultivation. Cultivation of oregano in Shkodra has not been successful because the soil has low temperature and it has humidity. Alfons also suggests that a donor project supports processors with disinfection machineries and with a laboratory system.

Alfons has cultivated around 3 ha with thyme. He has set up a drying facility in a former state building that was used for drying tobacco with 3 floors where each floor is around 500 m^2. In summer time drying takes place within one week, in the fall it takes 15-20 days. He says that cultivators need to be equipped with isolated drying premises. These can be concrete made floors in shadow covered with metal.

Profile of a Small Processor: Orlando shpk

Orlando shpk is an essential oil production company based in Shkodra established by Tom Arra two years and a half ago. The goal of the company is to produce essential oils and to collect and trade MAPs. It is the old state factory of essential oils, which was privatized and transferred to several individual owners. The new owner has put the factory into operation and has started to produce essential oils and to collect MAPs. So, Orlando shpk, is a new entrant in the market and is seeking to gain market share.

In 2007, Orlando shpk produced 1.2 tons of essential oils including 1 tons of sage oil, 100 kg of lavender oil, 50 kg of winter savory oil and 50 kg of mente peperita oil. The factory has two distillators made in Italy of 2 m3 each. It has other old distillators, which it has put out of use. The distilling line includes distillators and a boiler. The company engineer, Luigj Martini, says that their distillators are better than those used by many other processors. They operate with steam at temperature of 240 grades. Many other processors use distillators produced in the country (even in Shkodra) in an artisanal manner, which are similar to those produced for raki.

Orlando shpk also collected 120 Mt of sage, 35 Mt of lavender, 100 tons of winter savory, and 6 tons of thyme. The company is supplied from 5 collectors: 2 in Kukes, 2 in Malesia e Madhe and 1 from Kruja. The company requires the collectors to sort the MAPs collected from specific villages in order to obtain high quality MAPs unmixed from lower quality ones. It stimulates the collectors with 10 lek per kg of sorted MAPs. Orlando shpk has also sold collected MAPs to Albanian Herb sh.a.

The company engineer, Luigj Martini, says that sage grown in Northern Albania has a high percentage of thujones (!). Orlando shpk produces sage oil with over 35% of thujones. A great part of sage collected from Southern Albania is also traded under the name of Northern Albania.

Luigj says that there is a need for donor support projects in several areas. They need contacts of foreign companies so that they can access them directly and not through Alb-dycross or Albanian Herb sh.a. They also need support with the organic certification of MAPs such as establishing links to international certifying bodies. They also need information on equipment suppliers in Europe of MAP processing lines.

3.5 MEDIUM AND LARGE PROCESSORS EXPORTING TO FOREIGN MARKETS

3.5.1 STRUCTURE AND EVOLUTION OF THE CLUSTER

A consolidation process has taken place in the sector in the last 5 years with a few major companies dominating the market. Alb-Ducros used to be a quasi-monopolist in the export of Albanian MAPs from the beginning of transition up to 2000-2001. Since then, it has gradually lost market share, gained by a group of 5-7 other medium sized national exporters.

The major exporters can be divided in these two main groups: large processors (Alb-ducross), and medium sized exporting companies including a group of 5-7 companies, which have consolidated and managed to sell directly to foreign buyers. Anyhow, Alb-Ducros is still the largest company, which also does higher level processing and has a more structured enterprise and consolidated trade links with Germany, USA and France.

TABLE 3.3: ALBANIAN LARGE AND MEDIUM MAPS EXPORTERS

Company	Owner Manager	Location	Telephone Contacts
Albdukros	Genci Guga	Tirane	042 252003
Albanian Herbs Sh.A.	Kujtim Zere	Shkozet 11/4 God 4/2, Durres	+052 65079 +052 65118
Filipi Shpk	Filip Gjoka	Lac	0682021352 3554 2257374
Xherdo Shpk	Xhavit Hysenaj	Maminas, Durres	0692060915
Elba-Shehu Shpk	Ylli & Xhevdet Shehu	Elbasan	0692623708 0692063575
Mucaj Shpk	Vasel Mucaj	Bajze, Malesi e Madhe	0211 2498 0682070052
Relika Shpk	Ramadan Lika	Koplik, Malesia e Madhe	0211 2402
Herba-Fruktus Shpk	Emin Koldashi	Elbasan	0682048440

The medium size companies include Albanian Herb Sha, Filipi shpk, Xherdo shpk, Mucaj shpk, Relika shpk, Elba-Shehu shpk, and Herba-Fruktus shpk. Some of these companies are looking to add value to their products through bio-certification, producing essential oils, etc. Mucaj, Xherdo, Elba-Shehu and Herba Fruktus have received organic certification for some MAPs and can charge prices up to 30% higher than for ordinary products. Xherdo has invested in a new line for the production of essential oils. While all these companies have invested in new processing lines it was not possible to obtain accurate figures on investments done as they considered such information confidential and would not disclose real numbers.

Albanian Herb sh.a, a joint venture with the Turkish company Kutas was a new entrant four years ago with the purpose to grow and become company number two. Until 2008 it grew steadily. However, in 2009 it lost market share in the collection of wild MAPs as a result of increased competition, and as a result of the low prices for cultivated oregano. As a result, the company did not collect more than 700 tons in 2009, thus remaining a medium sized processor.

The position of large and medium processors in international markets is that of suppliers of raw material. Most of them perform operations of cleaning & selection, grinding, and pressing and sell to foreign buyers. Alb-ducross is one of the few exporters who can perform higher level processing and charge higher prices for processed MAPs.

The medium exporting companies typically have a processing line of 1,000-1,200 tons and of 5-7 kv in 8 hours. In 1997 Vasel Mucaj has purchased such a line for $300,000. This line is automatic and completes

the operations of removing the stalks, cleaning, grinding, sucking, and sorting. This line does not do any form of sterilization by steam. At the present time, no exporting company is able to complete sterilization. Filip Gjoka puts the value of a new line that completes sterilization up to 2 million euro.

Some of the main buyers of Albanian exporters are Martin Bauer, Krauter Mix, Kutas etc. Foreign companies such as Martin Bauer work with several Albanian suppliers and place orders for select MAPs to different Albanian companies. In 2008 for example, it placed an order for blueberries to Herba Fruktus, and another order for cornflower to Elba-Shehu shpk, another supplier from Elbasan. In 2009, it placed orders to Alb-ducross, Elba-Shehu, and Gjergji Cibuku. Others like Albanian Herb supplies mainly Kutas with whom they have a joint-venture and less other foreign companies.

Each exporting company has an established network of regular collectors from all over the country, a number of farmers who they have supported to cultivate limited surface areas with MAPs, and by small processors. Large processors such as Albducros also have collection agents or branches in select districts to which they pay the operating expenses. For example, Alfons Cici has a regular supplying relationship with Albducros. Vasel Mucaj says that he collects around 80% of the MAPs on the basis of long established relations. For the other 20% of production he goes out in the market and purchases from other collectors. He differentiates the price of collected MAPs based on quality, purchasing by 10% less the lower quality MAPs. Medium sized processors and large processors trade MAPs between themselves herbs that they are not able to export on their own.

As payment in cash is the main payment method between processors and collectors, processors also need to have liquidity. However, contrary to collectors who need liquidity mostly in the collection season, processors need it throughout the year as they work with multiple regional collectors supplying MAPs in different periods of the year. So, most of them borrow large loans from banks and use overdrafts. Besides liquidity, personal relations and reputation are important in relations between collectors and processors and they try to maintain long-term co-operation. However, when a processor is not able to purchase a particular herb or the full quantity from one of his regular supplier collectors, the latter can sell them to other exporting processors.

3.5.2 MOST RECENT MARKET CHANGES AND TRENDS

In 2009 it is noted a decrease in exports of sage and an increase in its price compared to 2008. This is attributed to the decrease of domestic production and to the fall in demand from foreign markets. The decrease in production is attributed to demographic fall of population leaving in mountainous areas and to the lack of stimulation from the state to encourage collection of MAPs. Fall in demand is attributed to the international financial crisis, which affected companies such as Martin Bauer to import smaller quantities. As sage is used in 80% in the salami industry, this industry has also seen its costs and prices increase and has also reduced demand for sage[16].

According to processors interviewed, exports of sage in 2008 were higher than any other normal year because demand in 2008 was high and there was super production. Alfons Cici says that with the creation of stocks of MAPs in the USA, prices fall, with the exhausting of these reserves, the US price increases[17]. In 2008 Albducros increased the quantities exported directly to USA as it had sage in stock

[16] Interview with Kujtim Zerja, Albanian Herb SHA.

[17] Interview with Emin Koldashi, Alfons Cici.

from previous years. It managed to sell high quantities (an estimated 2000-3000 tons) and at a high price. At the same time production and collection of sage in 2009 was lower due to raining at harvesting time, harvesting early and the fall of population in rural areas. As demand was high in 2008, the price also started to increase since June 2008 and remained high until August 2009.

Since August 2009, there was a decrease of demand and of the price of sage in foreign markets including US. In the domestic market there was an increase of competition because all companies were involved in the collection and processing of sage. So, there was an increase of sage price in the domestic market, while at the same time the price in foreign markets decreased. The price in the domestic market was increased both from lower production and speculation. There was panic among exporters about not being able to secure a similar supply and the price increased. In 2009 Alb-ducros had pressure to sell similar quantities, while it did not have similar levels of stock.

According to several sources sage price increased in the domestic market from Albdukros in order to attack competitors such as Vasel, Filipi and Albanian Herb companies. He used one of the major collectors, Myrteza Zhaka from Berat, who collected sage from all over Albania at high price. According to Alfons Cici and Gjergji Cibuku companies went directly to the farmers and told them that they would buy sage for a high price in the range 170-190 lek for bouquet. Last year bouquet was 120 lek and the leaves were at 170 lek. As a result of high sage prices many companies operated in 2009 on low profits[18]. Alfons Cici says that this is due to a lack of experience from the main actors (implying Albdukros management) and that it will not happen again this year.

Emin Koldashi estimates that production of sage in 2009 was around 15% lower than in 2008 due to decrease in production and high prices. He says that at the time of interview, all exporters have sage in stock and that not all production of 2009 has been exported yet. He has some 20 tons of sage still to be sold. Sage can be preserved without a problem for a period of 18 months.

According to Vasel Mucaj, the quality of sage exported in 2009 was lower. He estimates that effects of this will be felt the following year with a decrease in price. It is a rule of thumb that when quality of one herb deteriorates, demand and the price for that herb for Albanian exporters falls the following year as buyers seek to purchase it from other sources in the world.

Processors interviewed consider 2009 as not a normal year because market demand has decreased for several MAPs including oregano, blueberry, winter savory, dog rose, cornflower, and cowslip genus. In 2008 oregano was in high demand but suppliers deteriorated the quality. In 2009 there was demand for sage, lavender, dandelion, wild apple, rosemary, while for repanda juniper there was stability of demand.

According to Emin Koldashi of Herba-Fruktus, international market demand for MAPs is not stable. In a 3 years cycle, demand is high for one year and for the other two years, it decreases. Only for sage market demand is stable, and the total quantity exported depends on the amounts collected annually.

As a result of consolidation in the sector, there is also a certain specialization of processors with select MAPs. Alb-Dycross remains the only company exporting most MAPs. The other medium sized companies are all involved with sage, oregano, thyme and winter-savory, and with other MAPs based on market demand. For example, Mucaj shpk exports also lavender and juniper; Elba-Shehu exports also cornflower, dandelion, oregano, juniper, gentian, cowslip, and blueberries; Herba-Fruktus exports also

[18] Interview with Emin Koldashi, Alfons Cici, Gjergj Cibuku, Vasel Mucaj.

common apples, cornflower, juniper, blueberries, and dandelion. On the other hand, Xherdo is specialized on the production of essential oils.

ALB-DUCROS sh.a.

Since 2000 the company is completely independent from the multinational Ducros. The company trades each year around 2,600 Mt of dried herbs and essential oils annually; the majority of sales is made by sage (over 1,000 Mt/year), followed by wild apple (600 Mt/year), lemon balm, oregano and winter savory (200 to 300 Mt per year each); the company trades also smaller quantities of a wide range of other MAPs, such as coriander, juniper etc. All products are sold in bulk packaging.

The collection of raw material is performed through a network of 10 collectors/wholesalers, of which 7 are agents, 2 independent collectors and 1 semi-independent collector. In 2007 and 2008 the company increased its exports of sage, while in 2009 it declined due to lower production and decrease in demand.

At the same time, the trend of increasing MAPs purchase prices is confirmed. Such trend is compressing the margins, as it was not possible to increase the export prices. Moreover, to remain competitive in the key US market of sage, it has been necessary to partially compensate the depreciation of the USD, reducing sales price equivalent in euro. Among the different products, common apple and dog rose are those ones whose margins are still quite rewarding.

It also happened that, as in 2007 there was little quantity of oregano, due to adverse climatic conditions, collectors/wholesalers mixed the original oregano with a similar plant, causing an important negative impact with customers abroad and requiring extra work for sorting again the two products.

MUCAJ shpk

Muçaj sh.p.k. is one of the top 7 largest exporters of MAPs in the country. The company is owned by Vasel Muçaj and it is based in Bajzë, in the northern Albanian district of Malësi e Madhe, near Shkodër. In 1997, Vasel invested around $300,000 in a processing line with a production capacity of 1200 tons. About 1,000 tons are processed and sold on average each year. The company conducts sorting, cleaning, grinding, and disinfection of MAPs. The company employs directly around 100 employees and its annual estimated sales are 1,200,000 euro.

The main MAPs traded in 2009 include lavender, thyme, sage, repanda juniper, blueberry, orris, oregano, and winter savory. In 2009, Mucaj collected 700 ton of sage, 30 ton of juniper, 30 ton of lavender, 20 ton of thyme, 15 ton of winter savory, 10 ton of oregano, 10 ton of stinging nettle etc. Vasel exports MAPs to customers in France, Germany and USA.

Vasel is one of the exporters that has stimulated the cultivation of lavender and thyme in Malesia e Madhe. Based on company's support an estimated 70 ha of lavender and thyme are cultivated. Vasel intends also to support the cultivation of rosemary. Vasel notes that a problem for cultivated MAPs are the traditional seeds, which are old, do not have the same quality as before, and these varieties are not in demand any longer in foreign markets. Vasel is looking to purchase seedlings from his buyers in France and distribute it to cultivators in the region. To those with whom he has a trustworthy relation, he will give for free, to others he will sell. In 2006 he gave for free to MAPs cultivators lavender seeds, which they cultivated and sold to him the production.

Vasel has obtained organic certification from ICEA for a surface area cultivated with lavender and thyme. He says the price of organic MAPs should be 30% higher than for normal ones. However, in reality he has not benefited from a higher price. Albanian exporters lower the price during negotiations, and the foreign buyer says that he will buy from him since it is certified, and not from another Albanian competitor which is offering the same herb at lower price. Furthermore, his experience is that German buyers do not want certified MAPs because they have to go through long bureaucracy of German government including completing long questionnaires. Organic certification cost Vasel around 3,500 euro per year.

HERBA-FRUKTUS shpk

Herba-Fruktus shpk is owned by Emin Koldashi who has worked in the sector since the time of communist economy. In the 1990s he founded his own company based in Elbasan, which has grown substantially to become one of the main ten exporting companies of herbs and spices.

Herba Fruktus shpk has increased the quantity of exported MAPs in 2009 compared with 2008. Traditionally its markets have been in Europe, but in 2009 it also exported also to the USA. The company exports a minimum of 4 trucks (20 tons) a month, with an estimated minimal quantity of 1,000 tons a year and an average turnover of 1,300,000 euro. The company has contracts with German companies such as Martin Bauer and Krauter Mix.

Herba Fruktus follows market demand and changes the portfolio of MAPs collected based on demand of each year. In 2008 it collected common apples (150 Mt), blueberries (48 Mt), cornflower (10 Mt), oregano, dandelion, juniper, thyme and lavender. In 2009 the highest quantities of MAPs collected included common apples, dandelion, lemon balm, stinging nettle etc. Sage is not one of the main MAPs collected for this company.

Herba Fruktus has certified as organic several plots for wild plants in Burrel, Bulqiza, Diber, Permet and Elbasan with a certifying body from Germany. He sells a quantity of organic certified sage, thyme, thorn bush and stinging nettle. He can sell this at a price of 15-20% higher than the ordinary one.

Emin says that there is demand for cultivated dandelion, sage, and lemon balm. In 2007 and 2008 the company stimulated the cultivation of cornflower by distributing seeds for free to farmers. However, with the fall in demand, it has not stimulated its cultivation any longer. He has seeds of cornflower and dandelion in stock, which he has purchased from his buyers. He is not interested in supporting the cultivation of MAPs.

ALBANIAN HERB Sh.a.

Albanian Herb sh.a. is a joint-venture with Kutas company directed by Kujtim Zere. It is one of the largest exporters of MAPs in Albania. It is exporting the largest portion to Turkey, where they are further processed and then re-exported to the USA. Besides selling to Kutas, the company also sells to other clients from Europe and USA. According to Kujtim Albanian Herb ShA says that in the last four years they have exported an average of 700 tons of MAPs a year. Clients are from Turkey, France, Germany, Macedonia, USA and Spain.

The main products traded by Albanian Herbs sh.a. are: sage, oregano, winter savory, and thyme. It trades two types of sage: *salvia officinalis*, which is sold in the USA, and *salvia triloba*, which is sold in Europe. The company is supplied with MAPs from collectors, harvesters and collection agents to whom it pays for all the collection expenses. According to Kujtim the phenomenon of exporting companies collecting directly from harvesters is growing. Kujtim sends the company trucks in villages and collects MAPs directly from houses of harvesters. The level of collectors is reduced because there is not sufficient profit margin for exporting companies.

Albanian Herb ShA has been one of the main exporters to cultivate MAPs and in particular oregano. Until 2008 it has stimulated the cultivation of 120 ha of MAPs in Shkoder, Durres and in other parts of the country. They provided seeds to cultivators and even had hired an agronomist full time that could support them with the production process. The company also published brochures and books. They cultivated around 30 ha of oregano in Shkoder with cultivation costs were about 1 million lek per ha. However, in 2009 prices in foreign markets fell and the company could not collect oregano from cultivators and sell it in foreign markets. If in 2008 oregano was collected with 250 lek, in 2009 the price was very low as Turkey was already exporting with 1 USD/kg. So, Albanian Herb failed with the project of oregano cultivation in Albania.

Filipi shpk.

Filipi company is owned by Filip Gjoka and is based in Lac. It is one of the largest exporting companies with an estimated 1200 tons exported in 2009. The company has 65% of its market in USA and 35% in Europe including France, Germany, Spain, Hungary and Croatia. One of its main clients is AASY company from USA. Filipi company increased the quantity of exported MAPs in 2009. He exported around 600 tons of sage and 650 tons of around 68 other MAPs including thyme, juniper, stinging nettle, grapes leaf etc. Filipi company produces also 3 tons of essential oils from sage, thyme and lavender.

The company is supplied from a network of 470 district and individual collectors. Filipi has intensified efforts to link directly to harvesters and stimulates harvesting families to go back to some areas to collect wild MAPs. He provides them with tents and provides them with samples of MAPs to be collected. If they harvest MAPS with the required quality and sell it to him he offers a higher price than the market price. There are individual collectors that may collect even 5-7 tons. Around 30% of its processed MAPs come directly from harvesters. Filip has also imported sage from Montenegro and Bosnia as its quality is as high as it used to be in communist time.

He uses truck of 20 tons to distribute to final buyers. MAPs are packaged in plastic bags of 5 kg and 10 kg. He sends the loads through Piraeus port of Greece, which arrives to the USA in 14 days. If he sends from Durres it will take 40 days of delivery. While sending it through Piraeus port he pays $800 more than from Durres, he is happy that the delivery is made early in order to keep clients satisfied. Filip notes that in his contract with the buyer there is a clause stating that if he does not collect the full specified quantity, he may be penalized with losing the client. Filip has had demand from foreign buyers for sterilized MAPs and that he possesses ISO certification and organic certification.

Filip suggests supporting the collectors' level of the chain with drying equipment because it avoids the infection of MAPs with salmonella. If collectors have drying equipment, they will be able to dry the herbs in the proper manner and therefore they will have added value. USAID in Montenegro has supported collectors with drying and distilling equipment.

XHERDO shpk

Xherdo shpk is owned by Xhevit Hysenaj and is based in Maminas, Durres. It is the main Albanian exporting company specialized in the production of essential oils, and one of the 10 largest exporters of natural MAPs. Xhavit Hysenaj is also the chairman of the Essence Producers Cultivators Association, which was founded by USAID's IFDC Project.

The company has invested in the last 3 years 1,300,000 euros in a processing line for essential oils and dried herbs and in a new building. The processing line includes stainless steel distillation machineries designed for the production of essential oils which started in 2008. It includes also a new processing line for dried herbs designed in Germany and installed in 2009. A brand new facility of 7,000 m2 was established designated for the processing for dried herbs and spices whereas 4,500 m2 were designated for the production of essential oils.

The full processing capacity of the line is 3000 tons, of which Xherdo intends to use 50% for producing essential oils and 50% for processing dried herbs. In 2009, the company collected 500 tons of MAPs to be processed for essential oils and 500 other tons for exporting as herbs. The quantity of essential oils produced is around 15 tons annually and it includes sage, juniper, oregano, thyme essential oils. The main herbs that are exported include sage, oregano, thyme etc.

Xherdo is supplied from collectors from all districts of Albania. He has cultivated 5 ha with sage, winter savory, thyme with his own expenses. Xhevit says that winter savory, sage, thyme, bay leaves and oregano can be cultivated in Albania.

Xherdo has contracts with international buyers from the U.S., Spain, Austria, France, and Belgium for the export of essential oils. In 2007 he entered the US market with organically certified essential oils. The plans of the company are to add organically certified, value-added medicinal plants to his line of export products.

XHERDO Ltd is member of prestigious international organizations like IFEAT (International Federation of Essences and Aroma Chemicals Trade), IFOAM (International Federation of Organic Agriculture Movement) and AMAPSEEC (Association of Medicinal and Aromatic Plants of South Eastern European Countries).

TABLE 3.4: ESTIMATED TOTAL QUANTITIES AND MAIN MAPS EXPORTED BY LEADING PROCESSORS

Company	Main products	Estimated Annual Quantity of MAPs in Mt
ALBDUKROS	Sage, wild apple, lemon balm, oregano, winter savory, coriander, juniper etc.	2,500-3,000
ALBANIAN HERB sh.a.	Sage, oregano, thyme, winter-savory.	700-1,000
FILIPI shpk	Sage, Essential oils.	1,200

XHERDO shpk	Sage, Oregano, Thyme, Juniper, Essential Oils.	1,000
ELBA SHEHU shpk	Oregano, Cornflower, Juniper, Blueberries, Cowslip Genus, Gentian.	1,200
MUCAJ shpk	Sage, Lavender, Thyme.	1,000
RELIKA shpk	Sage, Winter-Savory, Thyme.	900
HERBA FRUKTUS shpk	Wild Apples, Oregano, Cornflower, Juniper, Blueberries, Dandelion.	1,000

3.6 PRODUCTION AND PRODUCERS OF ESSENTIAL OILS

Currently, Albania produces annually between 35 and 40 tons of essential oils, which are produced from an estimated 15 small, medium and large processing companies. Each of these companies has a distillator operating with steam technology. The companies with advanced distillators include Alb-Dycross, Xherdo shpk, Filipi shpk, Relika shpk and Orlando Shpk. Orlando shpk is a new entrant in the market. The medium and large essential oil producers are supplied not only with MAPs, which they process into essential oils, but also with essential oils from smaller distillator owners. For example, Gjergj Qosja in Berat, has a plant for essential oils, and supplies Xherdo shpk in Maminas with oil.

From 1 kg of sage are obtained 62% of leaves, which can be exported. The remaining stalks are processed in a distillator with steam producing essential oils. Estimated ratios of quantities of stalks to quantities of essential oils produced are given in **Table 3.5** below.

TABLE 3.5 RATIOS OF PRODUCTION OF ESSENTIAL OILS FROM SELECT MAPS[19]

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

According to Maksim Kraja, a processing line for producing essential oils should have at least 2 distillatories, a heating facility, a cooler, a lab, and the transporter. A second hand imported distillatory

[19] Information compiled from interviews with Luigj Martini of Orlando shpk, and Skender Ujka, Relika shpk.

costs at least 15,000 euro. So, a basic processing line for essential oils would cost at least 50,000 euro and it may go even up to 500,000 euro[20].

According to Skender Ujka from Relika shpk, a new distillator with a processing capacity of 1.5 tons of stalks in 24 hours will cost around 16,000 euros. Many distillators used by smaller companies are artisanal and similar to the pots where raki is boiled. When using these distillators, the essential oil must be extracted from water mechanically. Instead modern distillators separate automatically the essential oil in a free flow.

Prices of essential oils suffered a decline in 2009 compared with 2008. For example the price of sage essential oil in 2008 was $75 while in 2009 it was $50-$60/lit[21].

TABLE 3.6: PRICES OF ESSENTIAL OILS[22]

MAPs	Price of Essential Oil per Liter in Euro in 2009
Sage	35-40
Thyme	100-120
Lavender	18-20
Winter Savory	70-75
Juniper	80-100
Oregano	75-80

[20] Interview with Maksim Kraja from Mucaj shpk.

[21] Interview with Alfons Cici.

[22] Based on interviews with Vasel Mucaj.

4. PRICES AND MARGIN ANALYSIS

From the dynamic point of view, the Global Economic crisis has had an impact on the prices of many MAPs (**see table 4.1**), as well as on the quantity of exported MAPs (for more see **Chapter 5** below). Interestingly, the price of sage seems not to been adversely effected by the crisis – instead, we observe a significant increase of the farm prices, from 120 – 130 All in year 2008 to 170 – 190 All in year 2009 (**see Table 4.1**). Given that this price increase was similar along all the chain, and on the other hand, there was a significant decrease of quantity imported by USA (the main market or sage) from Albania (the main supplier) and the rest of the world by almost 20% ([23]), than it can be concluded that there was a supply shock, such that has dominated the potential pressure for reducing prices, in the context of the Global and US economic situation. Indeed, interviews with different stakeholders, such as collectors and wholesalers, confirm that there was less wild sage collected in 2009 – due to not favouring climacteric conditions, but also due to the high level of damage of wild sage resulting from improper harvesting practices in the previous years. This trend is expected to be persistent, leaving increasing space for cultivation of sage.

TABLE 4.1: REPORTED FARM (HARVESTER OR CULTIVATOR) PRICES ([24],[25])

Latin Name	Name in Albanian	2008 All	2009 All	2008 Eur	2009 Eur
Satureja Montana	Trumez	120	80	1.0	0.6
Salvia Officinalis [26]	Sherebele	120 - 130	170-190	1.0-1.1	1.4
Sambucus Nigra	Shtogu	600	500	4.9	3.8
Centaurea Cyanus	Cian		700		5.3
Origonum Vulgare	Rigoni i Zakonshem	250	180	2.0	1.4
Juniperus Communis	Dellinja e Zeze		110		0.8
Thymus serpyllus	Zhumrica	120	110	1.0	0.8

[23] USDA Trade Database: Accessed in January 2010

[24] Exchange rage: The prices were reported in ALL but were exchanged into Eur based on the average exchange rate reported by Central Bank of Italy, 123 and 132 for year 2008 and 2009 respectively.

[25] These figures are subject to further review by the research team.

[26] Wild sage price is circa 20 All higher than cultivated sage in Albania, although the latter is present at very limited quantities, and there is not a true consolidated market and production of cultivated sage.

Lavandula		140-150	130	1.1-1.2	1.0
Rosmarinus officinalis			85		0.6
Rubus fruticosus	Manaferra	70	40	0.6	0.3
Urtica Dioica	Flete Hithre		140		1.1
Primula Veris	Agulice		700-750		5.5
Gentiana Lutea	Sanzi		850-900		6.6

Source: own survey

Prices and margins of MAPs products vary according to the type of the product and from year to year. For some products, such as blueberries, prices are high (i.e. 10 Euros/kg), whereas other products, are sold at lower prices. Also margins vary significantly by products. Collectors tend to charge a constant mark up for most products, which is usually 10% or 10 All/kg, depending on the specific situation or the product, to cover their costs and provide profit for them.

In the case of oregano, processors' margin varied from about 20-30% or more during 2008. However, in 2009, prices in foreign markets decreased and also processors' margins were squeezed. Margins tend to be relatively considerable also for plants which are cultivated (often with the support of the processors/wholesalers), such as thyme and lavender, where the competition is less direct due to the direct involvement and support of the processor (when this is the case).

TABLE 4.2: PRICES IN EUROS OF SELECTED PRODUCTS AT EACH CHAIN LEVEL IN YEAR 2008 ([27])

	Farm	Collector	Processor
Salvia officinalis	1.1	1.2	1.3
Origanum	1.5	1.8	2.7
Thymus spp.	1.0	1.1	1.4
Lavandula officinalis	1.2	1.3	1.7
Blueberry ([28])	10.9	12	15

Source: own survey

[27] These figures are based largely on the estimates provided by Mr. Vasel Mucaj, one of the largest operators/exporters of MAPs, who also was particularly open to provide information based also on his previous positive experience with USAID projects in the past.

[28] Reported by ELBA-SHEHU.

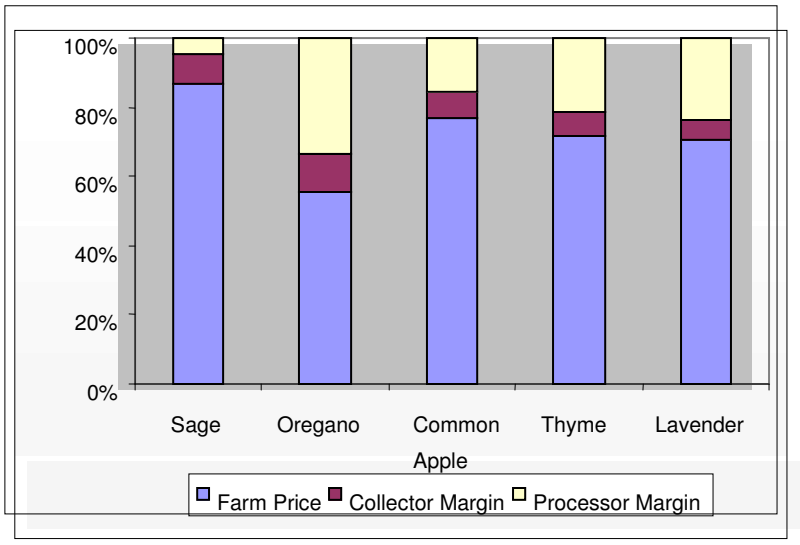
TABLE 4.3: PRICES IN EUROS OF SELECTED PRODUCTS AT EACH CHAIN LEVEL IN YEAR 2009 ([29])

	Farm	Collector	Processor
Salvia officinalis	1.4	1.6	1.7
Origanum	1.4	1.5	2.0
Thymus spp.	1.1	1.2	1.4
Lavandula officinalis	1.0	1.1	1.4

Source: own survey

Processors margins of some demanded, wild collected MAPs, particularly sage tend to be lower than that of other products and persistent over time, whereas the margins of other MAPs are also often characterized by oscillations. The reason might be that the competition of many collectors and processors for purchasing this product is so strong, while there are constraints on the supply (wild harvesting) that reduces their own margin, leaving a higher share to farmers. This view was confirmed from different interviewed processors. This also implies that increasing added value and prices of this product (sage) affects more directly farmers, as most money remains at rural households.

DIAGRAM 4.1: PRICE MARGINS OF FARMERS, COLLECTORS AND PROCESSOR (YEAR 2009)



Source: own survey

[29] These figures are based largely on the estimates provided by Mr. Vasel Mucaj, one of the largest operators/exporters of MAPs.

Sage is collected from farmers at 1.4 to 1.5 Euros per kilo in year 2009. Than, collectors, after adding a 10% mark up (which in turn is about 6% of the final price), sale it to processors, for 1.5 – 1.6 Euros/kg. Processors receive about 4% of the final price, and sale sage at 1.7 Euro per kilo. The sage, when at USA market, has a value of 2.5 Euro/kg. Of course prices and margins are not identical for all years and all players across the country; however, they follow this pattern in general, and they are almost identical between 2008 and 2009 (**see Table 4.4**).

TABLE 4.3: PRICES AND MARGINS OF SAGE AT EACH CHAIN LEVEL IN YEAR 2008 AND 2009

Year	Farm	Collector	Processor	USA Custom Import
Prices at each chain (Eur)				
2008	1.10	1.21	1.27	1.90
2009	1.44	1.58	1.66	2.50
Margins at each chain (Eur)				
2008	1.10	0.11	0.06	0.63
2009	1.44	0.14	0.08	0.84
Margins at each chain (percentage of the finale price)				
2008	58%	6%	3%	33%
2009	58%	6%	3%	34%
Added value (percentage)				
2008		10%	5%	50%
2009		10%	5%	50%

Source: own survey

5. MARKETS

5.1 THE DOMESTIC MARKET

While demand for MAPs in the domestic market is limited, a range of MAPs 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 in cooking. At the present time, tea and salep are packaged by Albanian companies and are sold in retail outlets including supermarket and to restaurants as well. Other herbs and spices are sold in fresh fruit and vegetable markets packaged in basic plastic bags and sold in bags of 20-100 gr.

ALBANIAN TRADING COMPANY (ATC) sh.a.

"Albanian Trading Company" located in Durres, Albania, is an Albanian-Italian joint venture company established in 1992. It is specialized in the collection, selection, cleaning, processing and import-export of aromatic-medicinal herbs, spices and their derivates. ATC since 1992 harvested, cleaned and processed over 50 kinds of aromatic medicinal herbs and spices. It is particularly specialized for cleaning and processing sage, juniper berry, rosemary, laurel, oregano, thyme, etc. It processes over 500 tons of MAPs a year. Export markets include: USA, Italy, France, Germany, Bulgaria and Turkey.
ATC is renowned in the domestic market for the production of herbal, medicinal and aromatic Teas as well as different Tea blends for Health and Natural Healing. Below is a summary of their tea based products.

TABLE 5.1: ATC VARIETIES OF PACKAGED TEA

Medicinal teas	Relief Tea for third age	Aromatic - medicinal Tea
Cough and bronchial tea	Renal Tea	The family blend for all ages
Stomach and intestine Tea	Anti diabetic tea,	Multi Vitamin
Tea to relieve Cold	Reduce Blood pressure' Tea, etc.	Natural Tea Blend for your silhouette

TEALB shpk

TEALB is owned and managed by Ibrahim Myftari. It is the main company selling packaged tea in the domestic market. The company has a Chinese packaging line and it is supplied with tea collected from Gjirokaster, Korce, Permet, Tepelene. Tealb sells its tea bags by distributing directly through its vans to the main supermarkets in Tirana.

Ibrahim points out that the main demand in the domestic market is for mountain tea, oregano, and rosemary. Mountain tea is demanded by consumer households. Oregano and rosemary are demanded by the salami processors and restaurants.

While there is continuous demand, the existing resources of mountain tea are degraded due to overexploitation. Besides the packaging of local herbs for the domestic market, Tealb works as a collector of herbs and spices, which it sells to the processors.

YLLI MERJA

He is a practitioner of traditional medicine based in Tepelena. He packages a range of MAPs in his workshop in Tepelena and distributes them to small traders places in the fresh fruit and vegetables markets who sell them in a separate stands.

He supplies the Natyral & Organic Shop, located in the center of Tirana, the Uzina Dinamo Market, the fresh fruit and vegetable markets at the Train Station, 21 Dhjetori etc. The MAPs are packaged in plastic bags of 30-100 gr. The profit margin of the local trader is 10-12 lek per bag. Products traded and their selling prices are given below in Table 4.2.

According to the local trader interviewed, spices used for cooking sell faster than herbs. On average he sells 30-35 bags a day with a turnover of 3,000-3,500 lek a day.

LLAKMANI SHPK

This is a new entrant in the domestic market, which is packaging and selling salep in the main supermarkets including the Euromaxx and the Big Market supermarkets chain. The company is based in Pogradec and is selling only salep at the present time.

TABLE 5.2: PRICES OF PACKAGED MAPS SOLD IN THE DOMESTIC MARKET

Product Name	Size of Packages	Cost per Unit Lek/Package Fresh Fruit & Vegetable Market	Cost per Unit Lek/Package Natyral & Organic Shop
Repanda Juniper	100 gr	50	100
Hawthorn	100 gr	100	100
Dog Rose	100 gr	50	100
Dellinja e kuqe	100 gr	50	100
Blueberry	50 gr	100	100
Thistle Seed	50 gr	100	100
Artichoke	70 gr	100	100
Camomille	50 gr	50	100
Tea for ulcera	1 pack with 4 bags 230 gr	300	100
Tea for prostate	1 pack with 4 bags 230 gr	300	100
Tea for diabetes	1 pack with 4 bags 230 gr	300	100
Tea for diabetes	1 pack with 4 bags 230 gr	300	100
Oregano	20-35 gr	50	100
Basil	20-35 gr		100
Peppermint	20-35 gr	50	100
Parsley	20-35 gr	50	100
Bay leaves	20-35 gr	50	100
Hot pepper	50 gr	50	100
Spices for soup	50 gr	50	100
Spices for pasta	50 gr	50	100
Spices for fish	50 gr	50	100
Black pepper	50 gr	50	100
Coriander	50 gr	50	100

TABLE 5.3: HERBS SOLD IN SUPERMARKETS

Product	Company	Net Weight Package	Price Lek/Package
Various Herbal Teas	ATC	100 gr	180
Various Herbal Teas	TEALB	40 gr	100
Salep	LLAKMANI	200 gr	140

5.2 ALBANIAN EXPORTS OF MAPS

5.2.1 OVERALL EXPORT FLOWS AND DESTINATION OF EXPORTS

Albania is traditionally a leading exporter of dried herbs in bulk (i.e. does not produce spices), which are mostly treated and re-packaged abroad and used in the food industry (for herbal teas, additives in food preparation or sold in small packages for professional and home cooking); part of the plants is used to extract essential oils.

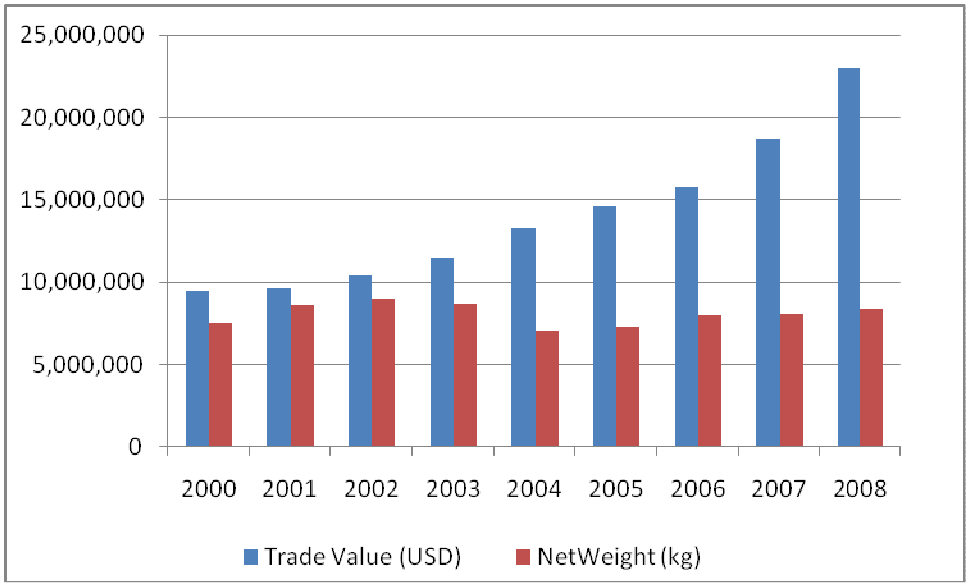
Albania is exporting a wide range of products, but is particularly strong in three to four MAPs, namely: sage, oregano, thyme and savory, in order of importance. Sage accounts almost for almost half of the value of total exports. USA are the most important outlet for Albanian sage, where Albania is also the largest international supplier.

The main markets are Germany and USA, which absorb about 60% of total Albanian MAPs exports. Other important markets are France, Turkey and Italy. A major share of products imported by European countries and by Turkey are processed and re-exported.

Diagram 5.1 below shows the main export markets of Albanian MAPs.

DIAGRAM 5.1: STRUCTURE OF ALBANIAN MAPS EXPORTS BY COUNTRY 2004 TO 2008

[redacted]



Source: UNSTAT

An important and appreciated characteristic of Albanian production is that exports are almost totally consisting in wild MAPs, having higher market value when properly sorted and dried. As compared with cultivated MAPs, wild ones have higher content of essential oils and a wider range of micro-elements.

In the last few years, three to five Albanian wholesalers/exporters have also established some basic premises for the extraction of essential oils. In parallel with the establishment of processing facilities, the cultivation of MAPs is also growing.

Exports in value are constantly increased since 2000 and especially from 2005 on: 2008 exports scored 2.05 bln ALL (24.5 m USD), a 16% increase over 2007 and a 33% increase over 2005. This trend follows the more general growth trends of both agricultural and forestry products exports.

Such increase is due to increasing price of exported MAPs, as exports in quantity is even declined in the period 2000 to 2004 and then increased more slowly than exports in value, as shown in **Diagram 5.2** below.

The increasing price of exported MAPs is partially due to the increasingly scarce supply of wild MAPs due to the depopulation of inner and mountain areas and to the non-sustainable harvest practices applied by the remaining harvesters, and on the other hand by efforts in improving quality.

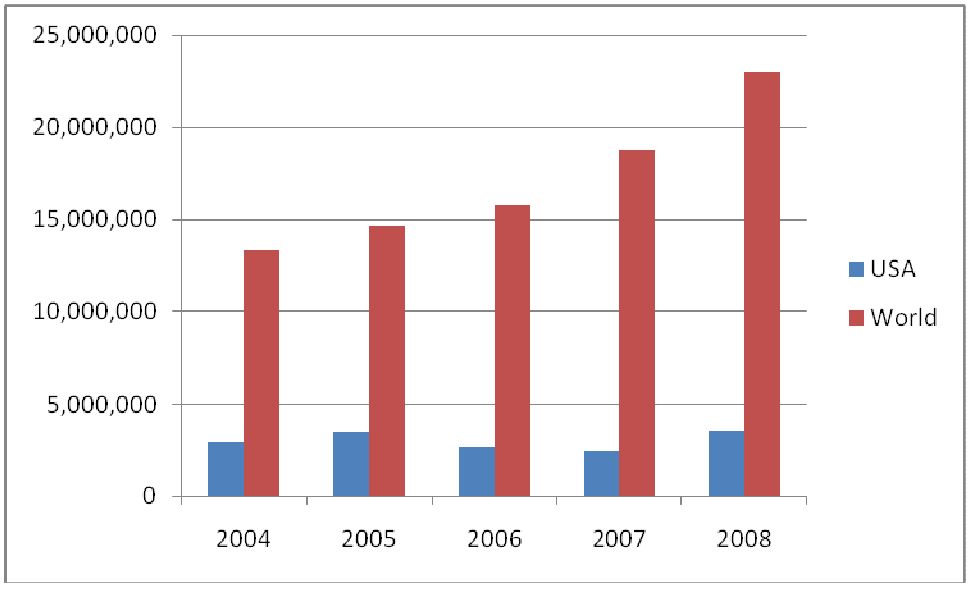
5.2.2 EXPORTS TO USA

Albanian exports of MAPs have been increasing over the last years, and has been dominated by sage – more than 90% of MAPs exports to US consist of sage.

In late 1990', a strong decrease was recorded in both volume and quantity terms. Those years, an increase in exports to Germany and EU was recorded. That can imply that part of MAPs that before were exported to USA directly, went through Germany or other EU countries.

In the early 2000', a continuous increase of MAPs exports to USA was recorded, peaking in year 2005, while in years 2006 and 2007, the exports to USA decreased again (see **Diagram 5.2**).

DIAGRAM 5.2: EVOLUTION OF ALBANIAN MAPS EXPORTS TO USA AND REST OF THE WORLD

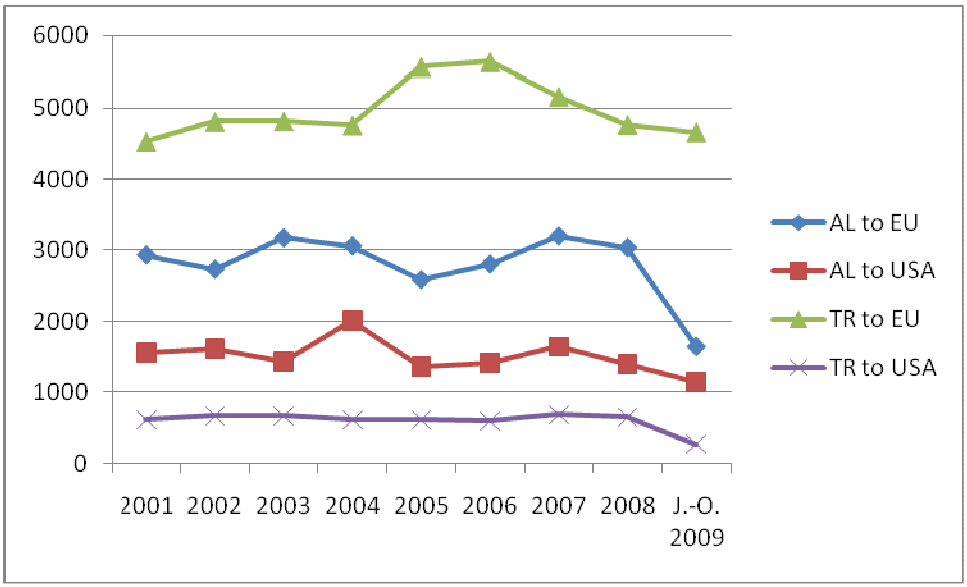


Source: UNSTAT

In year 2006 and 2007, the decrease of USA MAPs, mainly sage, imports from Albania was partially offset by the increase of imports from Turkey and Germany (see **Diagram 5.3 and Diagram 5.4**). Also from the interviews with the actors, it was confirmed that part of the Albanian MAPs went to USA through third countries (i.e. Turkey).

There is no consensus among the operators on the causes of such shift: some operators consider that such shift is related to the increased attention paid for the safety of the dried sage imported in USA, that should be sterilised, to prevent the risks of Salmonella (there are no facilities for sterilising sage in Albania, so that the product exported to Turkey and sterilised there before being re-exported to USA would enjoy a competitive advantage), while other think that it is simply due to the aggressive expansion policy of Albanian Herb (a joint venture with the Turkish Kutas Group), which turned to become the second largest exporter in the country.

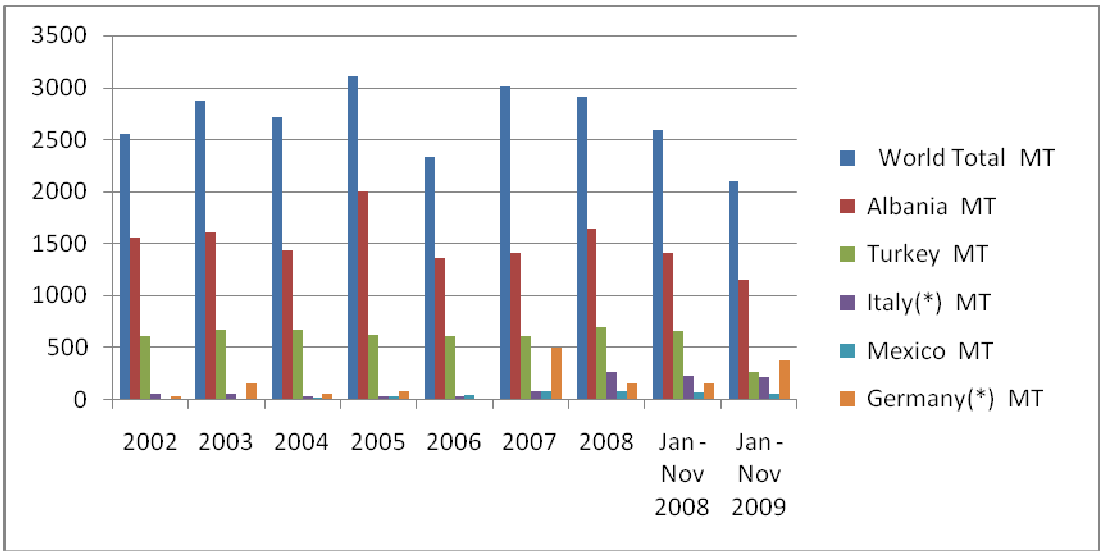
DIAGRAM 5.3: TREND OF ALBANIAN MAPS EXPORTS TO EU AND USA (MT)



Source: Eurostat, USDA

However, in 2009, statistics and interviews with stakeholders confirm the significant decrease of the intermediately role played by the Turkish "players" and the lower collected quantities in Albania were mostly exported directly to the final markets.

DIAGRAM 5.4: EVOLUTION OF USA IMPORTS OF SAGE FROM ALBANIA AND OTHER MAIN WORLD PLAYERS



Source: USDA

Albania is the main supplier of sage to USA, ranging from 50% to 65% of the total USA imports (see **Table 5.4**). Turkey is another major supplier, whose role is getting stronger, whereas Germany follows a less stable pattern – however, it seems that both these countries, in specific years, have been active in triangular trades with USA and Albania.

Such consideration is confirmed by the negative correlation between exports of sage to EU countries and to USA: when the direct exports to USA are high, than the exports to EU are low and vice versa.

TABLE 5.4: ALBANIAN AND WORLD EXPORTS OF MAPS TO USA BY YEAR, IN VALUE AND QUANTITY

	2002	2003	2004	2005	2006	2007	2008	Jan - Nov 2009
Quantity (Tons)								
World Total	2,553	2,870	2,710	3,109	2,335	3,010	2,909	2,104
Albania	1,565	1,611	1,431	2,007	1,365	1,413	1,642	1,150
Albania/World	61%	56%	53%	65%	58%	47%	56%	55%
Value (000 USD)								
World Total	4,888	5,429	6,414	7,621	6,111	8,160	9,191	7,568
Albania	2,480	2,578	2,852	4,297	3,130	3,293	4,763	4,046

Prices (USD/Kg)								
World Total	1.9	1.9	2.4	2.5	2.6	2.7	3.2	3.6
Albania	1.6	1.6	2.0	2.1	2.3	2.3	2.9	3.5
Price increase W.		0%	26%	4%	4%	4%	19%	13%
Price increase AL.		0%	25%	5%	10%	0%	26%	21%

Source: USDA

Analysing the evolution of average import prices of sage in USA, it emerges that prices have been generally increasing (see **Table 5.4**). The Albanian sage price increases have been lower but more stable than that one of its competitors.

A price increase spark of about ¼ in year 2004 was due both to a scarce supply in that year and to the depreciation of USD against other currencies. In the following years, prices remained high, in general, and increased even further in the case of Albania. Similar increase, like in 2004, was found in year 2008 and 2009 – in 2009 prices of sage exported from Albania were about 50% higher compared to 2007.

In trying to maintain a stable flow of exports towards USA, Albanian operators followed a policy of relatively cheap prices, preferring to reduce their margins to keep a leading position in the US market of sage. As mentioned before, such policy paid off until 2005.

The German and Turkish sage prices are considerably higher than the Albanian ones, for most of the years. Turkish sage prices are constantly higher than the Albanian sage prices – 20% - 70% higher. Whereas the German prices are characterized by high oscillations – in some year (i.e. 1998 – 2001) German sage prices are similar to the Albanian ones, even a bit lower. In other year, such as year 2004 and year 2006, German sage prices are considerably higher than the Albanian ones – almost 50% and 100% respectively. Only in 2009, when there was also a lack of supplies in the world market, Albanian sage managed to "score" a similarly high price like the rest of the world, gaining ground and "playing" a determinant role in the market.

Despite the fact that Albanian sage has high organolectic qualities, the Albanian sage prices are significantly lower than the rest of the world. Moreover, Albania, supplying high quantities, or more than half of the sage imported by USA, has the advantage of being in favourable negotiating position, which should help to obtain higher prices. Low prices are attributed to a large extend to poor post harvest practices affecting the standards of exported sage (sorting, cleaning, homogeneity, phitosanitary and food safety treatments, dryness etc.). This is a weak point also in regards to trade of other MAPs plant/products. In addition, this paradox (low prices - high organolectic qualities) may be also partially attributed to the lack of governance in the Albanian value chain.

TABLE 5.5: ALBANIAN EXPORTS OF OREGANO, FENNEL AND THYME TO US

	2004	2005	2006	2007	2008	Jan - Nov 2009
Value (000 USD)						
Origanum	0	0	12	219	31	0
Fennel	8	45	69	7	11	49
Thyme	0	0	0	4	0	59
Quantity (Tons)						
Origanum	0	0	7.6	83	12.4	0
Fennel	2.9	19.7	37.9	2.8	4	21.6
Thyme	0	0	0	2	0	9.1
Prices (USD/Kg)						
Origanum			1.6	2.6	2.5	
Fennel	2.8	2.3	1.8	2.5	2.75	2.3
Thyme				2		6.5

Source: USDA

Other MAPs products exported to USA include oregano, fennel and thyme (**Table 5.5**) and essential oils (**Table 5.6**). Exports of essential oils vary from few tens of thousands of USD to 200,000 USD (**Table 5.6**). In year 2009 (up to November) the reported exports of Albanian essential oils was insignificant.

TABLE 5.6: ALBANIAN EXPORTS OF ESSENTIALS TO US

	2004	2005	2006	2007	2008
Value (000 USD)	208	107	194	35	154
Quantity (Tons)	3.1	2.1	2.2	0.7	2.1
Prices (USD/Kg)	67	51	88	50	73

Source: USDA

5.2.3 EXPORTS TO EU COUNTRIES

EUROSTAT provides data only up to HS – 6 level, where only the most important MAPs in value (mostly spices and hot pepper) are specifically indicated.

Also, the same MAPs are sometimes reported in different categories, based on their final destination, such as those ones to be used for processing (cosmetics, perfumery, extracts for medicines etc.) and those ones to be consumed for direct consumption, as herbs for cooking, herbal teas or herbal medicines ([30]).

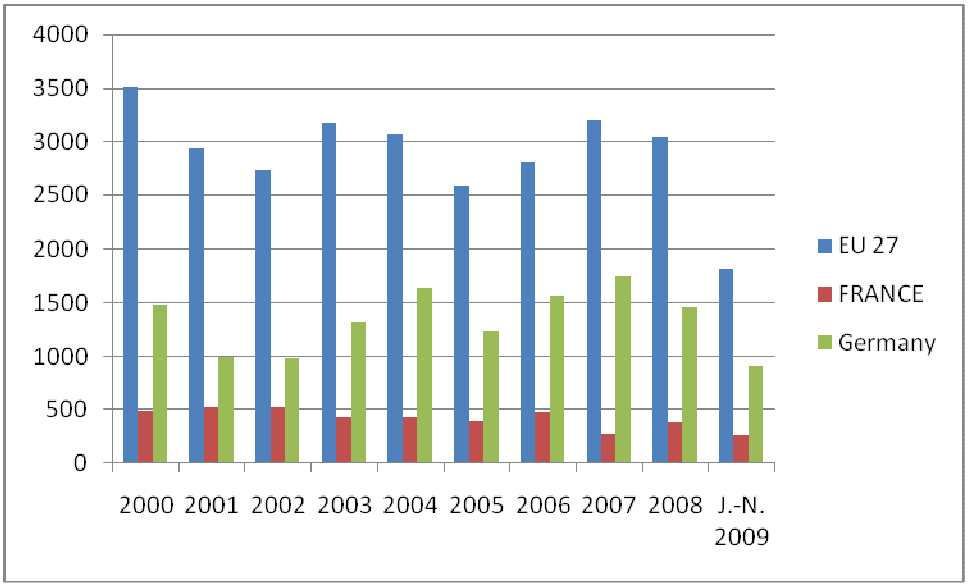
Albanian MAPs export target different EU countries. Germany is by far the most important market; exports to Italy and France are more or less equivalent (see also **Diagram 5.3** above), France being more important for MAPs used for processing and Italy for MAPs used for cooking and herbal medicine.

5.2.4 EXPORTS TO EU OF MAPS USED FOR PROCESSING

The most homogeneous set of data is relevant to MAPs used for processing ([31]). In this sub-sector, Albanian MAPs exports to EU have been increasing over the last years, in both value and quantity. After reduction in early 2000', Albanian MAPs exports resumed growth in years 2004, 2006 and 2007, as shown in **Diagram 5.5** below.

Macedonia is also a strong competitor in this sub-sector, but it remains much behind both Turkey and Albania. Nevertheless, exports flows of MAPs from Albania to Macedonia could be an indicator that that country is also becoming more active in triangular trades.

DIAGRAM 5.5: EXPORTS TO EU OF ALBANIAN MAPS FOR PROCESSING (MT)



Source: Eurostat

[30] The result of such division is that, for example, the same Medicinal Plant is reported in two categories if it is imported for being sold in herbal shops or pharmacies or for being processed to extract chemicals used in traditional medicines.

[31] Eurostat code 121190: "Plants, parts of plants, incl. seeds and fruits, used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes, fresh or dried, whether or not cut, crushed or powdered (excl. liquorice and ginseng roots, coca leaf and poppy straw)."

More than 50% of the Albanian MAPs exports to EU target Germany, followed by France and Italy, 16% and 14% each respectively (average share was calculated based on 9 years period – namely 2000 – 2008) (see **Table 5.7)**.

TABLE 5.7: EXPORTS OF ALBANIAN MAPS TO EU COUNTRIES, IN VALUE (000 EUR)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	Sum	Share
Germany	2,778	1,678	1,648	1,816	2,896	2,247	3,442	4,218	3,565	24,288	51%
France	838	1,047	1,149	723	707	717	825	551	896	7,452	16%
Italy	1194	867	828	967	761	773	461	611	341	6,802	14%
Greece	651	461	286	200	170	99	274	531	452	3,124	7%
Czech	132	132	152	390	231	258	227	215	287	2,025	4%
Spain	63	121	171	189	190	249	132	229	202	1,546	3%
Poland					1	35	16	136	371	558	1%
Austria	50	43	44	47	53	45	46	59	159	546	1%
Other EU	64	146	171	245	115	111	103	232	199	1,386	3%
Total EU	5,770	4,495	4,449	4,577	5,124	4,534	5,526	6,782	6,472	47,727	100%

Source: Eurostat

Albania exports also significant amounts of essential oils, whose quantity, value and prices vary significantly from year to year, marking a significant decrease in year 2009 (data are not complete for this year).

TABLE 5.8: ALBANIAN EXPORTS OF ESSENTIAL OILS TO EU

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Jan-Oct. 2009
Value (000 USD)	729.9	962	1,014.50	874.2	780.9	527.1	708.8	781.4	596.6	127.9
Quantity (Tons)	30.3	26	23.5	22	21.5	8.3	14.7	12.4	16.9	2
Prices (USD/Kg)	24.1	37	43.2	39.7	36.3	63.5	48.2	63	35.3	63.9

Source: Eurostat

5.2.5 EXPORTS TO EU OF SOME MAPS FOR DIRECT CONSUMPTION

Quantity and value of exports of selected MAPs

Eurostat provides separate data of Thyme, Bay Leaves and Fennel & Juniper used for direct consumption ([32]).

Albanian exports of Bay leaves to EU are not very high.

The situation in the market of thyme and fennel and juniper is different: EU countries are a very important market for Albania for both products, whose export value is comparable, as shown in **table 5.9** below***, while for EU countries Albania is an important supplier only for thyme and in particular for wild thyme.***

TABLE 5.9: EXPORTS OF FENNEL

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Jan-Nov. 2009
Value (000 USD)	134.1	117.4	224.8	132.0	71.7	390.2	217.6	270.0	286.4	120.4
Quantity (Tons)	148.4	166.9	214.4	148.0	133.3	237.8	235.3	226.6	195.5	90.7
Prices (USD/Kg)	0.9	0.7	1.0	0.9	0.5	1.6	0.9	1.2	1.5	1.3

Source: Eurostat

Table 5.10 below shows the relative importance of Albania in the Germany and in all EU markets of fennel and Juniper. As it is possible to remark, Albania remains a marginal source of supply in the whole period, both in Germany and other EU countries. During this period, the EU market is sensibly grown, with imports rising from 3.8 m Eur in 2003 to 7.1 m Eur in 2007 (+59%)

TABLE 5.10: SHARE OF EU AND GERMAN IMPORTS OF FENNEL & JUNIPER FROM ALBANIA IN 2003 AND 2007

	2003		2007	
	Value	Quantity	Value	Quantity
Germany	2.12%	1.56%	1.77%	1.65%
EU 27	1.38%	1.77%	1.77%	2.29%

Source: Eurostat

[32] As subset of category 9 "Coffee, tea, mate and spices" of HS – 6 database.

Table 5.11 below shows the relative importance of Albania in the Germany and in all EU markets of thyme. In this case, the situation is more articulated: Albania is not a particularly important supplier when considering imports of all types of thyme; also its market share is declining in the years, in a market which is growing slowly, as imports increased from 11.4 m Eur in 2003 to 12.0 m Eur in 2007.

The situation is quite different in the market segment of wild thyme: here Albania is a major player and in the key German market is the dominant one; in this market, its market shares are also increasing.

TABLE 5.11: SHARE OF EU AND GERMAN IMPORTS FROM ALBANIA OF FENNEL & JUNIPER AND THYME IN 2003

	Thyme, all types				Wild thyme			
	2003		2007		2003		2007	
	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Germany	4.30%	8.02%	4.39%	6.04%	35.19%	49.53%	40.09%	63.01%
EU 27	2.69%	4.52%	2.87%	5.64%	14.22%	29.70%	10.57%	16.13%

Source: Eurostat

Export prices

As already remarked in the case of sage exports to USA, the high organolectic qualities of Albanian MAPs are not reflected in prices, mainly due to the superior quality of post-harvest services provided by main competitors.

The importance of achieving a competitive quality and consistent standards is clearly shown in **table 5.12** below, which compares the average import prices of wild thyme paid by EU and German importers for products sourced from Albania and from other countries.

TABLE 5.12: AVERAGE PRICES PER KG PAID FOR WILD THYME IMPORTED EU COUNTRIES AND IN GERMANY IN 2003 AND 2007.

	EU 27		GERMANY	
	2003	2007	2003	2007
Albania	1.07	1.35	0.93	1.33
Other countries	2.72	2.20	1.69	3.39
Total average	2.23	2.06	1.32	2.10

Source: Eurostat

6. POLICY ENVIRONMENT

6.1 POLICY FRAMEWORK

Albanian laws related to the MAPs management, harvesting, and trade include:

- Law Nr. 7623/92 "On Forestry and Forest Service Police"
- Law Nr. 7722/93 "On Preservation of Medicinal, Aromatic and Tanniferous Plants"
- Order Nr. 2 of Law 8302/98 "Administration of the revenues from forest and pastured transferred to communes on usufruct."

The main Government bodies involved with MAPs business are:

1. The Ministry of Environment, Forestry and Water Administration (MEFWA), which is responsible for the whole forestry sector included MAPs, after the 2005 related institutional reform. Before this date, the responsible body was the Directorate General of Forests and Pastures of the Ministry of Agriculture, Food and Consumer Protection. The role of MEFWA is particularly important, as they have the responsibility of preserving the natural resources of the country and the Forestry Service is releasing the licenses for MAPs harvesting.
2. The National Licensing Center, issuing the licenses required to the formal operators of the MAPs value chain (collectors, processors, exporters, herbal shops etc.) and the National Registration Center where all these operators are registered as legal businesses.
3. The Customs, which control and record the international flows of MAPs.

In addition, the border posts and the quarantine stations of the Ministry of Agriculture, Food and Consumer Protection (MAFCP) should record and control all the inflows and outflows of MAPs from the sanitary point of view. In particular, MAPs are object of obligatory recording, but they are not necessarily indicated by type and therefore generally recorded as "medicinal plants".

All support and incentives to MAPs value chain, except harvesting activity (and relevant licensing), should fall under the Directorate General for Agricultural Policies of the MAFCP.

Protection of natural resources and rural livelihood conditions should be also included in the Rural Development Plan, which is among the EU requirements for pre-accession and is the base on which Albania can access to IPARD funds.

Other public or semi-public subjects involved in the MAPs value chain are:

- The communes, to which most forested areas, were transferred in usufruct.
- The Forestry Users' Associations, which are responsible for the sustainable use of the forestry given to them.

The association of MAPs processor has no officially recognised role.

6.2 FUNCTIONING OF THE VALUE CHAIN GOVERNANCE AND PUBLIC SUPPORT PROVIDED TO THE VALUE CHAIN

Support and incentives to MAP sector are presently not provided by any Ministry: MAPs are out of the MAFCP incentive schemes and it is not foreseen to be included in the sectors supported by IPARD.

The establishment of the Central Register of Enterprises has simplified the working environment, as before a collector or dealer should first register its business in the law court, then to obtain a license to specialize in the botanicals trade from the Ministry. However, most of the value chain formal operators started their activity before 2007, when the reform was introduced.

MEFWA issues permits to registered dealers/collectors but no quotas are defined, regarding the quantity of MAPs that may be collected ([33]). The harvesters will gather the products and the dealers will collect them. Harvesters should be allowed to sell harvested MAPs only to collectors who have the license for such MAPs, at least theoretically.

In fact, neither the communes nor the local forest service actually oversee the process, so they do not check actual collection against issued permits and cannot deliver possible penalties. Both communes and forestry services are also not supervising the quality of harvesting, with the result that they have only generic information on degradation and endangerment of MAPs.

The regime of regulation is based on a tax and formal documentation produced by the controlled subject, but there is little or no actual service or control provided by public authorities, with a resulting lack of the governance on the key issue of harvesting regulation.

Moreover, the documentation presently required by different bodies would make extremely difficult to trace back the origin of exported products (or of products sold to consumers) and therefore to sanction possible abuses.

Anyhow, as the competent agencies and organisations do not exchange consistent information flows, any traceability system would be not effecting, should it be not supported by a bold political will and overall awareness of the risks of decline affecting the value chain is

As the system is not self-regulating, increasing degradation of natural resources is making worse the situation. The recent multiplication of improvised traders, who buy cash whatever they can get (with consequent rush to early collection and reduction of average quality of MAPs traded), spurred into business by increasing prices and scarcity of wild MAPs and by lack of controls is one of the effects of this lack of actual governance of the value chain.

[33] Interview with Thimaq Lako, Forestry Expert

7. ENVIRONMENTAL AND GENDER ISSUES

7.1 ENVIRONMENTAL ASPECTS OF MAPS VALUE CHAIN

As the core business of the value chain consists in international trade of wild MAPs, preserving environment and biodiversity is a key feature for sustainable business.

Even if the main MAPs traded are relatively few, the range of products offered by Albanian exporters is widening (also because of the increasing difficulty and costs of sage, thyme and oregano) and the range collected by harvesters is quite wide.

A survey performed in 2003 in 30 villages of the districts of Elbasan, Tepelene and Lezha ([34]) showed that harvesters in those areas were collecting 27, 15 and 5 types of herbs respectively. This is duly reflected in the prevalent demand of exporters n the same areas (processors/exporters in the North, such as Mucaj and Filipi are mainly dealing with sage, whereas Elba-Shehu in Elbasan is dealing with a wide range of herbs, but not sage).

Another important aspect of the Albanian MAPs biodiversity, is the possibility to find different varieties of the same MAP, which, when properly sorted and selected, can be used for different purposes (e.g. this is what happens with the different types of oregano, as wild "white" oregano is much more valuable as dried herb, while "red" oregano can be better used for processing and has anyhow a different market niche).

In some cases, local varieties are considered not very valuable, as it happens with lavender (cultivated in Shkodra), which is usually traded much cheaper than that one produced in Italy or France.

Considering the above, the environmental aspects of Albanian MAPs value chain are relevant in three key aspects, one representing an opportunity, the other two, risks.

1. *The opportunity coming from the rich biodiversity and the specific Western Balkan varieties*. Several valuable varieties of oregano, thyme and other herbs grow exclusively in a few Balkan countries. Also, climatic conditions and soils give to Albanian sage an exceptionally high content of essential oil. However, the characteristics of each type of herb make them suitable for a specific use, hence the paramount importance of not mixing different varieties: for example, the high content of thujon of Albanian *salvia officinalis* (the most common variety of sage) is good for essential oil used in cosmetics, but very bad if it they must be used as for the food industry, for which other varieties are better.
2. *The risk of introducing alien varieties used for cultivation* is that improper sorting will eventually lead to mixed lots of wild and cultivated MAPs of different varieties, as it is already happened. Anyhow, the introduction of alien varieties has been so far made on a small scale. So far, the risk of large-scale introduction of alien species affecting local biodiversity seems low.

[34] "Social and Economic Relevance of NTFPs in Albania", Agricultural National Forest Inventory project

3. *The environmental risks coming from degraded and endangered species.* The first cause of environmental damage is improper harvesting techniques, followed by over-harvesting in certain areas. Early harvesting affects the quality of the product, more than the plant itself. Degraded species include *berried juniper*, *sage*, *linden*, and *dog rose*. Endangered species include *yellow gentian*, *orchids*, *silver birch*, *mountain tea* (Sideritis Syriaca) , and *autumn crocus*.

In spite of the efforts, awareness among harvesters of the damages inflicted by improper harvesting to the perspectives of their own activity is still low. The ANFI ([35]) survey showed that only 6% of harvesters were considering this a problem, against the quasi-totality of processors/exporters.

7.2 GENDER ASPECTS OF MAPS VALUE CHAIN

7.2.1 CURRENT DISTRIBUTION OF ROLES AMONG MEN AND WOMEN

The most important part of the MAPs business (processing/exporting) is essentially a male-driven business (the fact that the owner and director of Alb-Ducros is a woman does not change the framework, as she has continued the business of her husband after his death), with women working in lower positions. However, the large and labour-intensive sorting lines of MAPs are a good working opportunity for many women in the areas where the plants are located.

MAPs harvesting, is an activity involving the whole family and especially women: around 50% of the harvest work force is provided by women, 30% by children (of both sexes), and 20% by men, whereas farming, on the contrary, is an activity dominated by male.

The 2003 survey performed by ANFI in three districts (i.e. Lezha, Elbasani and Tepelene) showed similar participation of men, women and children to the work, as shown in **table 7.1** below.

TABLE 7.1 FAMILY MEMBERS INVOLVED IN NTFPS HARVESTING

Description	Unit	Districts		
		Lezhe	Elbasan	Tepelene
Man-days spend yearly/family	Days	165	72	98
People involved/family	People	2.8	2.9	2.9
Who is involved?				
Interviewee	%	23.0	36.0	39.0
Spouse	%	38.0	33.0	32.0
Children	%	31.0	27.0	21.0

[35] "Social and Economic Relevance of NTFPs in Albania", op. cit.

Parents	%	2.0	2.0	7.0
Others	%	6.0	2.0	1.0

Source: ANFI, Social and Economic Relevance of NTFPs in Albania

Form the social point of view MAPs harvesting is also particularly important, as it involves mainly poor and unskilled workers.

Table 7.2 below shows the demographic data of the sample of the 2003 ANFI survey.

Table 7.2 Demographic data of harvesters (2003)

Description	Unit	Districts			Total
		Lezhe	Elbasan	Tepelene	
Nr. of people/family	Nr.	5	5.3	4.8	5.0
Gender					
Males	%	50	52	50	51
Female	%	50	48	50	49
Education level					
Elementary	%	4	18	3	9
Middle	%	77	31	47	51
High	%	18	48	44	36
College	%	1	3	6	3
Employment					
Unemployed	%	87	78	37	71
Emigrant	%	1	18	17	9
Employed	%	12	4	46	20

Source: ANFI, Social and Economic Relevance of NTFPs in Albania

Lack of alternative work opportunities make the families of the harvesters highly dependent on this source of revenue; whenever possible, rural dwellers switch to other activities or emigrate. This situation explains why, in spite of the fact that a family can get relatively good revenue from a harvesting season (the equivalent of 3,000 USD), this work is not popular and the number of harvesters decline in parallel with the economic progress of the country and the depopulation of inner and mountain areas.

7.2.2 POTENTIAL OPPORTUNITIES FOR WOMEN

The expected evolution of the sector (towards higher quantity of cultivated MAPs and higher shares of MAPs used for processing) is in fact expected to reduce, not to increase opportunity for women, as farming is largely made by men and MAPs processing generates small employment, that by far will not compensate the reduction of harvesters.

The development of services in the upstream part of the value chain (e.g. community dryers and first sorting facilities) could generate new opportunities for women.

The development of the domestic market of MAPs will also turn into an opportunity for women, as most pharmacies are staffed by qualified women. The opening of herbalist's shops (so far there is only one herbal shop in Tirana, staffed by a man) would create more opportunities for young graduates in pharmacy and other semi-skilled workers; considering that most of the shops are managed and staffed by women, this would result in a good opportunity for creating some work opportunities for women.

8. STRATEGIC ISSUES AND SWOT ANALYSIS

8.1 TRENDS AND KEY DEVELOPMENT FACTORS

The main development trends emerged from the analysis of the value chain main are the results of a longer term evolution crafted in the last ten years. Developing factors can be ranked as follows:

1. *The World market of wild MAPs is relatively well predictable and has a positive growth outlook*. Demand of wild MAPs from main markets is sustained and increasing and the role of the main actors is consolidated; differently from other products, there have been no major changes in the leading MAPs World trade actors. The delocalisation of essential oils processing towards emerging countries is a partial exception to this picture.
2. *Albanian lead operators are experienced and know their business*. A relatively high number of gifted and experienced traders leads the value chain. These operators have been able to exploit favourable market conditions to build up know-how, experience, capitals and trade connections, although they did not manage to develop a long-term vision.
3. *The direct and indirect presence* (through partnerships with local entrepreneurs) *of different multinational companies dealing with MAPs and essential oils has contributed to address the value chain development in two key moments since transition started*, namely: a) the recovery after 1997 turmoil, when the presence of Alb-Ducros has been an important driver to keep alive Albanian MAPs exports and, b) the market segmentation following the beginning of the worldwide delocalization of the production of some basic essential oil towards emerging countries; the establishment of Albanian Herb, a partnership with a Turkish company in turn linked to the USA group McCormick (one of the World leading companies in MAPs business) forced the local competitors to speed up the process of diversification and raised competition, but also introduced new risks and instability in the value chain.
4. *There has been limited, but constant support from development projects in improving otherwise neglected upstream segments of the value chain* (e.g. providing training to harvesters) *and in facilitating international trades*. Such assistance (the most organic and long-term being the one provided by USAID projects) has been often criticised by the main wholesaler/traders, but has played a major role in improving know-how along the value chain.

At the same time, *the role of public institutions, both at central and the local level, has been negligible*, in spite of the importance of the value chain.

The main development trends can be summarised as follows:

- *Competition among the wholesalers/exporters, who are the pivot value chain actors, is increasing and becoming more unruly*. This is due to the contemporary increase of number and size of actors and growing difficulties in maintain the existing flow of supplies (see bullet below). The action of both large and small newcomers (some newcomers being large ones) and the growth in size and experience of the existing ones is disrupting a consolidated network of trade relations between previously established value chain actors. This trend is causing increasing competition for the supply of MAPs (both wild and cultivated), a rise on prices paid to harvesters, competing investments in MAPs processing (for production of essential oils) and increasing interest in promoting cultivation

of MAPs. Increased competition is generating some benefits in speeding up quality improvement of Albanian supplies, but also negative effects, such as increased instability in the upstream supply chain (i.e. in the relations between collectors and wholesalers), scarce investments in the upstream chain (for fear of benefitting competitors) and rush for investing in the same areas (such as processing and support to cultivation) without being backed by proper feasibility studies and know-how.

- *The supply of wild MAPs is tightening.* This trend is due to three factors: i) mountain and inner areas are being depopulated; as a result there are fewer and mostly older harvesters. In some areas MAPs are almost no more collected; ii) the bulk of the harvesters is made by the poorest groups of population: as income increase, the number of harvesters decreases and; iii) demand is growing: wild MAPs are now also used for extracting essential oils. Supply of cultivated MAPs does not keep the pace of increased demand for processing and anyhow the price of essential oils extracted from wild MAPs is much higher.

  As a result of these factors, coupled with low skills and interest of harvesters in applying sustainable harvesting practices, prices of wild MAPs have fast increased and there was a strong environmental pressure on wild MAPs on some areas, with a consequent scarcity of wild product, loss of quality and competitiveness, environmental hazard, and endangering of local MAPs varieties.

- *The diversification of products*. Wholesalers/exporters realised that the main perspectives for expanding their business consist in: i) widening the range of products they offer, to compensate the scarcity of main wild MAPs and; ii) producing some basic essential oils.

  Both trends are linked to the fact that the problems of supply and competitiveness of wild MAPs is getting worse and remains not tackled, as market forces alone cannot solve it.

  As a result, the main operators are implementing competing investments for MAPs processing, each of them too small for producing a really competitive product in international trade. The lack of any agreement between wholesalers/exporters about the possibility to build up processing schemes that would maximise efficiency, while ensuring the independence of each actor is an important factor of weakness in the value chain, having a potentially far-reaching negative impact on the business of each competitor in terms of volumes and prices.

- *The growing importance of MAPs cultivation.* Exporters/wholesalers have traditionally focused their investments in the downstream part of the chain: trading and processing infrastructures (i.e. warehouses and essential oil processing units) and marketing. The increasing problems recorded in getting a regular flow of cheap supplies is forcing them to invest some resources (so far, quite limited, as compared with those ones invested in the downstream part of the chain) in supporting the cultivation of MAPs. This is being done without appropriate background and care in terms of study and preservation of biodiversity (with risks of losing some particularly valuable local MAPs varieties) and without introducing GAPs (good agricultural practices).

8.2 SWOT ANALYSIS

8.2.1 MAIN SWOT ELEMENTS

Factors of strength

- *A solid value chain, led by experienced traders.* Collection and trade of dried wild MAPs is a traditionally important sector in Albania, with many operators having experience and knowledge of the business at the different stages of the value chain.

The exporters/processors bear the uncontested leadership of the value chain, but the barriers to entrance have been low enough to allow a gradual increase of competition with new local actors emerging as strong players, while ten years ago the market was a quasi-monopoly.
Since the new competitors in the export activities are coming from the ranks of collectors and consolidators, they have a deep knowledge of the products and of the collection network and relation mechanisms. At the same time, they often lack capacity of strategic and innovative thinking. The difficulty to realise that the socio-economic changes of the country call for a deep reorganisation of the upstream value chain are the other face of this solid base of experienced traders, grown up from the field work.
Another point of strength of the value chain is the consolidated collection network. Most mountain villages have some kind of collection point and all of them are reached by he collectors, so that anybody interested in MAPs harvesting knows where and how to sell their products. This network is now under strain, but is still quite efficient.

- *Clear ideas about short-term priorities and development vision*. The consensus on short term priorities is rather generalised among leading actors, encompassing: i) the need for increased quality standards and quality controls, ii) the availability of tools for monitoring the international markets of wild MAPs, iii) the development of MAPs processing and iv) of MAPs cultivation. This make easier to address development policies and investments. At the same time, there is a lack of strategic vision, so that it is not obvious that sticking on commonly agreed good short-term policies will prove fruitful for the long term development of the sector.
- *Willingness and financial capacity of leading operators to invest more for developing their business*. A decade of steady business development has given to the main operators the confidence and the means to make important investments, often exceeding 1 m USD, which, considering the sector turn over and the type of investments required, are to be considered as relatively large investments, especially in a country like Albania, where investments in the agri-forestry sector have been quite small. Moreover, such investments have been made without endangering the enterprises with excessive debt.
- *Recognition of high quality of Albanian wild MAPs when properly treated*. As the sector is traditionally strong, the quality of Albanian wild MAPs are well known and have been well studied. When properly harvested, dried and sorted, the Albanian sage is probably one of the best, if not the best in the World. The fact that Albanian wild MAPs are usually paid less than the average World market price is entirely due to improper harvesting and drying techniques used and in inadequate post-harvest treatments, such as sorting and cleaning.
- *Consolidated presence of Albanian MAPs on international market*. For some products and in some countries, Albanian MAPs are the World market and price leaders. The World price of sage in the last two years is increased also because the supply of wild sage from Albania becomes more expensive. The two products/country in which Albanian MAPs are really market leaders are the wild sage in USA and the wild thyme in Germany.

  More in general, the importance of Albanian MAPs in international trades and the fact that any international trader knows their intrinsic qualities, make easier for new competitors to find market opportunities.

Factors of weakness

- *Poor harvesting and post harvesting practices, often spoiling the quality of the product*. Decades of no investments in the upstream part of the value chain (with the partial exception of few development projects) are the cause of a common lack of quality of the final product, in spite of the excellent raw material. Problems in bad harvesting practices (unnecessarily destroying the plant and giving excessive amount of waste), inadequate drying, no sanitation (there are no MAPs pasteurising plants in Albania) and poor sorting of exported products are widely reported having affected Albanian exports since the start of transition, but progress has been very slow and concentrated in the sorting work made in the exporters premises. More recently, early harvesting due to increasingly unruly competition between collectors for coping with the scarcity of wild MAPs is also negatively affecting the quality of products.

- *Lack of in-country facilities quality controls*. The absence of laboratories for quality control of MAPs and essential oils is an important factor affecting the relations between operators along the whole value chain, as exporters must wait and rely on analyses made by foreign importers and it is more difficult to establish a link between quality and payment for cultivated MAPs. In fact, it would be not sufficient to establish a quality control laboratory ([36]) but it should be also necessary to ensure a reliably neutral (for both parts involved) and cheap system of sampling the products to be analysed. The establishment of a private facility resulted also so far impossible, as the expected turnover is too small to justify the investment.

- *Insufficient capacity of leading operators to define a development strategy considering not only in-country competition, but also international competitive environment*. Albanian exporters often do not realise that the most fearsome competition will come from other emerging Balkan and Mediterranean countries, rather than from fellow Albanian competitors. Countries with larger economies of scale and more resources (natural, human, financial), such as Turkey, Bulgaria and Macedonia can grow as very strong competitors, mainly due to the lack of MAPs sector governance and strategic thinking in Albania.

  Also, the long experience in international trades and the consolidated demand for the four main Albanian MAPs has developed among leading actors a certain complacency about their knowledge of international markets of dried and processed MAPs. In fact, as the experience of the collapse of St. John Wort sales and the stagnation of those ones of savoury shows that international markets are rather predictable, but continuously moving, especially in MAPs processing.

  Finally, the market of essential oils, considered by Albanian leading operators as the most promising one is extremely complex, as essential oils are used in different extremely competitive industries, such as the food, cosmetics, detergents and pharmaceutical industry and in each case changing regulations and new discoveries are continuously modifying the terms of competitiveness of essential oils and of these one with synthetic chemicals.

- *Lack of governance in the value chain*. This is probably the main factor of weakness of the sector.
  With the transfer of Forestry to the Ministry of Environment, the responsibility on the MAP value chain is now divided between Ministry of Agriculture and Ministry of Environment, with the result

[36] Establishing an accredited quality control laboratory is anyhow a difficult tasks, as it requires the consistent application of proper procedures, in addition to properly trained staff, appropriate equipment and premises, sufficient working capital to keep running the laboratory, proper maintenance and lengthy international accreditation processes.

that no coherent policies are being developed for this strategic sector. Anyhow, since the beginning of transition, minimal attention has been paid by the Government to the MAP sector, even when the responsibility for the whole value chain was to the Ministry of Agriculture.

The lack of controls on respect of quotas in MAPs harvesting (which could be done at municipal level) is contributing much to the present wild competition in securing the supply of product, which in turn is causing much damage in terms of sustainability of the whole business, as it affects both quality of product sold and excessive and unruly exploitation of natural resources.

The existing association of MAPs processor is more acting for lobbying some support for its members (which anyhow they do not receive) than as a tool for sector governance or common action, in spite of the fact that the identification of the key problems is clear enough and agreed among the members. For example, it has been not possible to agree on the possibility to get some economies of scale in MAPs processing establishing a single facility jointly owned by the main operators, which could process the MAPs of individual exporters to produce essential oils against a fee. Also, it is not possible to jointly agree a way to develop an in-country know-how base for MAPs cultivation.

However, no association of private operators can be a substitute for a public engagement in a complex matter, including major rural development (with more than 76,000 rural dwellers, mostly poor, sourcing an important part of their income from MAPs), environmental (with several wild MAPs endangered, especially in some areas) and industrial issues (export of MAPs represent more than 60% of total export of forestry products and are equivalent to about 25-30% of the export of all agri-food products).

Opportunities

- *Sustained and growing demand for wild and cultivated MAPs and for essential oils*. All the recent market reviews ([37]) the demand for MAPs and essential oils extracted from MAPs is growing and the most valuable segments of the market (those ones related to wild MAPs) also offer particularly good perspectives. The delocalisation of processing plants for MAPs processing is posing new challenges, but also offering more opportunities, provided that the new trade flows that can be generated are properly guided. A typical example is given by the triangulation in sage trade between Albania, Turkey and USA. Important flows of sage are now exported from Albania to Turkey, processed there (e.g. sorted better, pasteurized, etc.) and then re-exported in USA as a Turkish product. This challenge to the Albanian prominent position in the USA market of sage can be turned into an opportunity through appropriate trade agreements.
- *Improved business environment in the country, facilitating investments and trades*. Increasing income, improving infrastructures and a more generally favourable business environment favour longer-term investments and stimulate FDI inflows. The establishment of Albanian Herbs, a partnership with the

[37] For example, those ones produced on each market by CBI, the center for the promotion of imports from developing countries financed by the Government of Netherlands, which is assisting, among other countries, also Albania up to the year 2014.

Turkish enterprise Kutas (which on turn is linked to the USA multinational Mc Cormick) is an example of these steadier flows of investments, which stimulate also local entrepreneurs to invest more in developing their businesses.

- *Gradual integration into the European Union and increasing availability of governance and financial tools for rural development*. The European Union cannot be a substitute for the lack of sector governance, but with its pervasive regulation of all aspects relevant to economic activities and environment protection will surely provide the incentives and a new set of governance (and enforcement) tools for a more sustainable sector development. In particular, the introduction of a comprehensive rural development plan (required by the EC in the framework of the pre-accession and approximation measures) and the access to IPARD (Instrument of Pre-Accession for Agriculture and Rural Development) will provide the possibility to develop appropriate policies and allocate resources to ensure a sustainable development of MAPs sector

Threats

- *The existing and long established collection network is being undermined by cumulative impact of socio-economic changes in rural areas and market dynamics.* Four factors are contriving to make no more sustainable the system of wild MAPs harvesting that so far survived throughout all the transition period:

1. Depopulation of inner and mountain areas and increasing revenues are steadily reducing the number of harvesters; moreover, remaining rural dwellers are becoming more concentrated in some larger villages and towns, where now population is higher than it used to be.
2. Demand of wild MAPs is increasing and increasing supplies are required also for processing: as the exporters increased their business and newcomers entered into the market, competition for supplies increased as well.
3. As a result of the above, each harvester is now stimulated by higher prices to provide a larger supply: in some areas there are more harvesters than any time before, each harvesting more than in past, while in other areas there is almost nobody left to collect wild MAPs.
4. As international demand will take some time to adjust and find alternative suppliers for some products supplied by Albania in large quantities (such as sage), in the short term prices are peaking up along the whole value chain: this has prompted new improvised collectors to enter into the market, in the expectation that prices will remain high. These improvised traders often have little knowledge of the product and no knowledge of the international market requirements. They come with cash and try to get as much herbs as possible, convinced that they will be able to sell them with much profit. This new situation is not only disrupting the long-established relations between value chain actors, but also decreasing the quality of product, as harvesters are pushed by high prices to pick up the herbs too early when quality is lower.

The combination and inter-action of the four above factors is pushing up prices of Albanian MAPs, reducing quality and causing heavy environmental damages due to overharvesting in certain areas, thus further reducing supplies and pushing up prices. Albanian operators are trying to develop a number of counter-measures, such as: i) widening the range of exported MAPs (to avoid a rush to prices paid to harvesters and collectors that is not sustainable and will eventually penalise everybody), ii) cultivating more MAPs and, iii) trying to agree between the main players a way to limit and control the activity of improvised dealers.

Anyhow, the above mentioned changes push the whole value chain towards an unsustainable pattern (both in terms of supply and demand) and it will be necessary to find a different and more complex equilibrium, the alternative being the loss of demand from international markets.

- *Increasing efficiency and competitiveness of MAPs value chain operators in other countries*. Suppliers from several countries are likely to threat the Albanian market shares in many herbs, providing better services (more appropriate harvesting, sorting, sanitation etc), profiting for harvesting from a still large pool of poor rural population, benefiting from economies of scale or from a better value chain governance. So far, Albanian exporters managed as a whole to keep their market shares, but situations like that one experienced in 2007, when major export flows to USA were diverted to Turkey where they received additional value added services before re-exporting are likely to become more frequent.
- *Low priority given to the value chain by public decision makers and international development projects*. MAPs value chain is quite important in terms of impact on rural poverty alleviation and international trade balance, but a relatively small business in terms of turnover, when compared with other agri-food sectors or even with the total output from timber products. Also, MoAFCP development policies since the 2000 "Green Strategy" have been more focused on increasing competitiveness of main agri-food sub-sectors (such as fruits and vegetables, olive and olive oil etc.) rather than in rural poverty alleviation or in strengthening export-oriented sectors. Also, most development projects have only marginally dealt with MAPs, with the exception of two USAID projects and, more recently of a SNV implemented project. In spite of its relevance for exports, natural resources management and rural poverty alleviation, the development of MAPs sector is not likely to raise much among priorities for rural development.

8.2.2 SWOT MATRIX

FACTORS OF STRENGTH	FACTORS OF WEAKNESS
• Presence of a strong cluster of experienced wholesalers/exporters • Clear ideas about short-term priorities and development vision • Willingness of leading operators to invest more for developing their business • Recognition of high quality of Albanian wild MAPs when properly treated • Consolidated presence of Albanian MAPs on international market	• Poor harvesting and post harvesting practices, often spoiling the quality of the product • Lack of in-country quality controls • Insufficient capacity of leading operators to define a development strategy considering not only in-country competition, but also international competitive environment • Lack of governance in the value chain
OPPORTUNITIES	**THREATS**
• Sustained and growing demand for wild and cultivated MAPs and for essential oils • Improved business environment in the country, facilitating investments and trades. • Gradual integration into the European Union and increasing availability of governance and financial tools for rural development	• Depopulation of inner areas and increasing revenues undermine the existing collection network and hamper sustainability of the value chain. • Increasing efficiency and competitiveness of MAPs value chain operators in other countries

	• No free market solution to contrast the reduction of supply of wild MAPs and the consequent increasing risk loss of both competitiveness and biodiversity • Low priority given to the value chain by public decision makers and international development projects

9. CONCLUSIONS

9.1 CONCLUSIONS

MAPs are part of one of the few relatively rich sectors of Albanian agri-food and agri-forestry business and an important source of revenue for agri-pastoral communities.

Nevertheless, public and private institutions and development projects did not invest in this sector an amount of human and financial resources comparable to its importance and relevance.

A major change of a long-established equilibrium is undergoing, but it is not governed either by private or by public stakeholders.

Good margins and business perspectives in the last ten years gave to the operators of the sector the opportunity to grow and consolidate. This opportunity has mostly been used by each operator in integrating downstream their business (e.g. developing direct market links, improving storage facilities, diversifying production), rather than in focusing and specializing on a core business. Such approach paid back in the short period and at individual level, but, as it was not sustained by appropriate development policies or effective coordination between operators, contributed to create a risky scenario.

Most operators realize that more efforts should be devoted to the upstream part of the chain and the most commonly proposed solution consists in starting cultivating MAPs, which is expected to solve simultaneously many problems (standardization, collection cost, planning of flows, food safety concerns, environmental risks etc.), but the action of individual operators is generally insufficiently technically prepared, too limited in scope and size and also potentially source of future economic losses and environmental damage.

The lack of sector governance and the low priority given by decision-makers is a major factor of risk for an organic and sustainable development of the sector. There is a total disconnection between the economic operators of the value chain and the institutions that should accompany its evolution.

The role of international development projects in developing the value chain is not acknowledged by the main operators, but projects played a very important role in some key aspects, such as facilitating trade links, thus expanding competition and training harvesters, an absolutely key issue, where nobody else invests.

The few development projects dealing with MAPs (the most notable being components of USAID IFDC and EDEM projects and GTZ activities for mountain areas) did not work on the whole value chain, either focusing on supporting the development of part of the chain or treating the issue as a part of wider local development programmes. The cost/effectiveness of the activities of the projects in this sector has been rewarding, also because of favourable market conditions, but solving the constraints of the sector was largely beyond their scope or means.

An important issue frequently raised is the quality of support received: the main value chain operators are experienced business subjects, who need specific, highly qualified and tailored training, which in most cases was not provided.

Albanian value chain operators are grown in the last ten years, from any point of view, but they suppose having a knowledge of the international MAPs and essential oils value chains which goes much beyond

their actual know-how and understanding. The business of MAPs and essential oils includes complex international trades, globalisation dynamics, competition between giant multi-national companies in four or five major industrial value chain, such as pharmaceutical products, cosmetics and food industry and complex agro-environmental issues. A better understanding of the challenges and opportunities of entering into the essential oil business is a need, so far scarcely accepted and recognised by the Albanian operators.

The leading value chain operators have very clear ideas on what are they consider priorities for receiving support. A consensus has been generally reached on these priorities, but not on the means to achieve the desired goals and also on the most appropriate and desirable evolution of the value chain structure.

9.2 PRIORITIES FOR VALUE CHAIN DEVELOPMENT

Priorities can be summarised as follows:

1. *Improving quality and safety of exported wild MAPs*. This requires a large-scale and long term training and technical assistance effort to improve harvesting and drying practices. This effort should be mainly addressed towards harvesters. Also, investments should be made in post-harvest facilities both in the upstream and downstream stage of the value chain. Willingness of private operators and resources for investing in the downstream value chain are, as a whole, satisfactory, while investments in the upstream part of the chain (at harvesters and collectors stage) are quite inadequate and, more important, there is scarce willingness of private operators to invest more in this, preferring an approach of short-tem profit maximisation, in spite of the increasing evidence of the risk of losing regularity and quality in the supply of wild MAPs. The access to EU pre-accession rural development fund is an opportunity to convey some investments in the upstream part of the MAPs value chain.
2. *Supporting the growth of the essential oils processing industry*. There are many areas where support is required in this area.

   The most frequently mentioned issue is the need for a facility for quality control of essential oils, whose certificates would be internationally recognised. However, how to establish such facility is a matter of disagreement. The main operators preferred to establish their own small processing units rather than supporting a single larger processing unit providing the service of essential oil extraction against a fee for everybody. This has increased the difficulty of finding an agreement for the establishment of the quality control system, making also potentially much more expensive the quality control process, for the need of ensuring consistency between analysed sample and exported lot.

   Other areas where support is needed are the introduction of GMPs (good manufacturing practices) and the respect of HACCP rules in the whole process.
3. *Supporting MAPs cultivation*. Scattered and occasional efforts of wholesalers/processors for promoting MAPs cultivation are producing some small results, but also creating major risks, especially due to the introduction of alien (and less valuable) species, the increase of frauds (cultivated MAPs sold as wild ones). There is huge need for consolidating GAPs (good agricultural practices), creating dissemination materials, training specialised agronomists and defining what can be cultivated and with which caution.
4. *Advocating and supporting a better governance of the value chain.* The long-term scarce interest showed by Public Authorities for this field must be reversed, as there is no development policy and no

support from the public sector at any level, including the key issues of applied research and extension. Also, the system of control of harvested quantities of wild MAPs is largely inefficient.

The association of essential oil producers (EPCA) is potentially a major stakeholder, but it is quite weak.

5. *Improving access to market*, increasing market know how, flows of market information and more aimed selection of the promotional events (fairs, exhibitions etc.) to which is profitable to participate.

9.3 IMPLICATION OF THE MAIN STRATEGIC OPTIONS ON QUALITY CONTROL AND MANAGEMENT OF NATURAL RESOURCES

During the analysis and the discussions with value chain operators and other stakeholders, two main strategic options emerged, namely:

1. Focusing on maintaining and improving the present core business of wild MAPs, based on three-four main products and integrated by a wider range of less important products.
2. Widening the range of products, increasing the range of wild herbs, the production of cultivated MAPs and MAPs processing.

The two options are not incompatible, but priority must be given; moreover, each option has consequences in two key aspects of the business, namely quality control and management of natural resources, as described below.

9.3.1 FOCUSING ON THE CORE BUSINESS OF WILD MAPS

This option requires the following actions:

- Addressing to solution the problem of quality of MAPs, which on turn require: i) training harvesters on sustainable harvesting practices, drying methods and basic sorting ii) limiting the over-harvesting of wild MAPs, iii) working with collectors and local communities for improving drying premises, investing also some resources, if necessary iv) introducing better sorting at harvesting and collection level, also in cooperation with local communities.
- Introducing some forms of quality control and payment related to harvesting method, quality of drying and quantity of waste.
- Control of the total amount of wild MAPs collected, introducing a system of traceability and making an agreement between main traders to discourage the practice of early harvesting.
- Provide regular analyses of international prices of MAPs, to increase the know-how on international competitors and create a realistic judgement on expected future prices. Unrealistic expectations on prices of wild sage and other main Albanian MAPs could lead to wrong investments.

Focusing on wild MAPs would require a much closer involvement of both exporters/processors and development projects with local communities and harvesters; in particular, more investments should be addressed to the upstream part of the value chain, while so far processors/exporters have focused their investments in the downstream part of the value chain (sorting/grading/cleaning facilities, processing units etc.).

The main challenge related to focusing the value chain development on wild MAPs is the difficulty to cope with a scenario which implies a major re-organisation of the long-established supply chain and requires important investments.

The alternative is a decline of the business and its stabilisation on a lower level in terms of quantity, with prices which could be or could be not higher, depending on the balance between benefits from additional investments in post-harvest activities and the damages coming from unruly rush to supplies and increasing interest in perpetrating commercial frauds (e.g. mixing cultivated MAPs to wild ones, early-harvested, low quality wild MAPs to good ones, certain types of cheaper oregano to thyme etc.) which will discredit all Albanian operators of the sector. In any case, returns on investments will decrease, as additional investments will be required just to keep the turn over at the present levels.

As a conclusion, focusing on wild map core business is a solution with good perspectives only if it proves realistic to re-establish the value chain governance and the equilibrium between demand and supply.

9.3.2 INCREASING MAPS PROCESSING

This option require the following actions:

- Establish an essential oils quality control facility, to introduce a more transparent price-for-quality relationship between Albanian processors/exporters and their clients and between processors/exporters and MAPs cultivators. As it is not realistic to have a laboratory in each processing unit, an independent laboratory (e.g. the Food Lab at Institute of Food Safety and Veterinary) should be accredited for this purpose (which requires proper equipment, training of laboratory specialists, appropriate and certified procedures and the documented respect of protocols). In this case, an important issue will be the way in which the process of taking and delivering samples to the laboratory will be carried out, to prevent easy frauds against suppliers of raw herbs.
- To ensure a steady flows of supplies compatible with perspective demand and the scale of existing processing plants. This on turn will require a more extensive cultivation of MAPs. Also, different lines of products (i.e. essential oils from wild and cultivated MAPs) should be clearly established and controlled, as also prices of essential oils are different if the raw material is wild or cultivated.

Increasing MAPs processing and improving quality of processed products requires an increased involvement of processors/exporters both in developing the services they need (i.e. participating to the investment necessary for a quality control laboratory) and in agreeing to provide a more organic and less improvised support to MAPs cultivation (as described in the chapter below), as without cultivated MAPs, the processing facilities will find increasing difficulties to break even.

The implications and risks of developing MAPs processing are again related to the weakness of the value chain governance: facilities for quality control, standards and an organic effort to introduce appropriate varieties of MAPs for cultivation are required, the alternative being a general loss of quality and credibility (due to the practice of mixing wild and cultivated MAPs for processing) and improvised attempts to promote cultivation of MAPs promoted by individual exporter/processors.

9.3.3 THE OPTION OF MAPS CULTIVATION AND ITS CONSEQUENCES

Promoting the cultivation of MAPs cultivation became an increasingly popular option among processors/exporters, to contrast the decline of wild MAPs supply and the consequent rush to secure the scarce supplies, which is causing increasing of price and loss of quality.

What has not yet been accepted by the operators is that the quality and the price of cultivated MAPs will be not the same of that of wild MAPs, regardless of the care devoted in choosing the place and the variety to cultivate and in applying GAPs (Good Agricultural Practices).

Introducing cultivation will lead to two parallel markets, with different prices, both with a good perspective demand. Any attempt to sell cultivated MAPs as wild ones or mix cultivated and wild MAPs will be easily discovered by customers, with the result of a generalised loss of credibility and lower prices for all Albanian products.

Anyhow, many improvements can be made in developing MAPs cultivation, the main ones being making an agreement between leading exporters/processors for a more coordinated effort, which will include: i) the choice of varieties, ii) the training of specialised agronomists, iii) the preparation of appropriate dissemination and extension material, iv) the availability of seeds and seedlings of the agreed varieties and v) the introduction of quality controls and traceability to ensure that cultivated MAPs are traded for the appropriate markets and types of demand.

The present system, based on the initiative of individual processors, is not only likely to damage the market of Albanian wild MAPs, but also to create serious environmental damages, with the introduction of alien varieties (often less valuable, as it happened in the case of some cultivations of red oregano) and the introduction of cultivations without previous control of the land suitability.

9.4 VERTICAL INTEGRATION AND ECONOMIES OF SCALE

Facing the increasing competition and difficulties of securing supplies, the reaction of Albanian processors/exporters has been to invest in vertical integration, establishing processing facilities, in the hope of tapping new markets, and in MAPs cultivation, to ensure the supply of raw materials, to be sold dry or to be processed.

Such efforts have been conducted individually, with the result that both processing facilities and MAPs cultivated areas are scarcely efficient and do not benefit from economies of scale.

Willing to develop MAPs processing, a more efficient option would have been the establishment of one or two larger facilities, participated (as a cooperative or a shareholding company) by processors/exporters. Working as oil mills do, such facility could have processed MAPs against a fee, so that processors/exporters would have retained anyhow the possibility to sell the essential oil on their own.

Such option would have been both more efficient and profitable and would have been large enough to justify having the quality control laboratory inside its premises.

At present, since the main operators have already established their own small-scale processing facilities, a joint initiative of medium-sized exporters would still have its economic justification.

This facility could process raw material on behalf of third parties and be paid either in cash (based on the quantity of raw material processed, not on the output) or in kind (then selling the processed product by themselves).

9.5 QUALITY CONTROLS AND TRACEABILITY OF PRODUCTS

Improving quality controls and introducing traceability is a key issue for all the products of the value chain (wild and cultivated dried MAPs and essential oils), as well as for the sustainability of the supply of wild MAPs, which remains the core business of the value chain and the most profitable line of products.

Poor quality is traditionally one of the main points of weakness of Albanian MAPs, due to different causes for different products (improper harvesting, sorting and drying for wild MAPs, inappropriate

varieties and cultivation techniques for cultivated MAPs, lack of quality control facilities for essential oils), but having always the same result: lower prices and smaller sales.

Improving quality and quality controls require significant investments on subjects who are not totally controlled by individual processors/exporters (harvesters, farmers, laboratories). For this reason, so far it has been impossible to mobilise sufficient private funds to promote quality and the most of the efforts have been left to development projects, since the priority given by the Government to MAPs is quite low.

As a result of the above, the activities to be carried out to improve quality along the value chain are clear enough, but so far it has been not possible to mobilise the will and the means of the leading actors (the processors/exporters) for a joint effort. Such activities should include:

1. Regular training of harvesters, for applying appropriate and sustainable harvesting practices.
2. A system of prices for quality should be really applied, refraining from buying whatsoever is supplied by harvesters.
3. Collectors should be supported in improving their facilities and establishing solar dryers. Forestry Users' Associations could be also encouraged to establish such facilities, which could also provide a first sorting of the products and organise auctions, as the most transparent way to cope with the present rush to supplies.
4. A facility for the sanitation of MAPs should be established, providing services against a fee.
5. Production of seedlings and use of appropriate varieties for MAPs cultivation should be made on the base of an adequate know-how base (which variety is appropriate to do what and on which soils) and with the support of extension and dissemination materials.
6. A facility for quality control of essential oils, as described in **chapter 9.3.2** above.

Traceability of MAPs is a scarcely discussed issued, but its introduction and the enforcement of existing quotas are the most effective tools to stop or at least to reduce the present rush to supplies which is endangering natural resources and reducing quality of harvested products, due to early harvesting. Linking the export permissions to the availability of full documentation on the origin of products and controlling that the quantity harvested in a certain commune correspond to the quota allowed is a measure that could reduce the abuses, even if a trade of false certificates is always possible.

10. RECOMMENDATIONS

Both public and private subjects have largely neglected the issue of building up a new value chain governance after the beginning of transition. Even the transfer of State forests to municipalities (and in some cases to forestry users' associations) and the establishment of MAPs processors' association have not contributed to improve or re-establish a kind of regulation in the value chain, whose evolution has been driven by market dynamics, affected by many distortion factors.

Socio-economic and market factors are now pushing for a growing divergence between supply and demand of some key products such as wild sage and thyme. Should not the value chain governance be re-established in the framework of an appropriate sector policy, market forces alone will create a new equilibrium, but at the expense of major losses in term of rural poverty, environment damage and decrease of exports.

Quick-fix or small-scale solutions (such as pursuing individually the security of supplies integrating with cultivated MAPs the supply of wild MAPs) are not sufficient to address the wider crisis of a long-established equilibrium, also because the markets of wild and cultivated MAPs are and must remain separate, the risk being to depreciate both value and image of Albanian MAPs.

The key issues requiring better governance can be resumed as follows:

- Sustainable collection of wild MAPs has to be ensured: movements of rural population and depletion of natural resources call for a better management of available natural resources; anyhow, it is likely that a sustainable exploitation of natural resources will set the collection at a lower level than the present one, at least in the areas where harvesters are presently concentrated.
- A kind of traceability and other types of quality controls must be introduced: mixing cultivated and wild MAPs is becoming increasingly frequent, with a loss of credibility (and consequent lower prices) for all Albanian MAPs. Also, there is no actual control on the quantity really harvested in each commune, so that the present system of licensing must be revised.
- Local communities must be involved, considering the importance of MAPs harvesting for income generation of the poorest families.
- The national Rural Development Plan must include more concrete provisions for the pillars of environmental management and development of rural communities, is spite of the fact that in the short term IPARD funds will be made available only for the first pillar, i.e. agri-food products competitiveness.

Should the above issues be not addressed, production will decline in quantity and quality and a new market equilibrium will be found at a much lower level. Some changes are not reversible in the foreseeable future: the supply gap opened by changes in distribution of rural population is permanent and made worse by long-term environmental damages caused by improper harvesting.

Other negative effects of the lack of value chain governance will disappear if the market will shrink: improvised dealers will wane when market pressure will push again down the prices of sage and other main MAPs.

Considering the above, there are measures that a project and the Association of processors can take for contributing to the value chain governance:

1. *Scale up the role of the association* from an advocacy group for the interests of individual members towards development projects and Government into a more articulated tool for sector development, giving priority to the following actions: i) establishing a small development fund; ii) promoting and co-financing the establishment of infrastructures of common interest (e.g. as the quality control laboratory); iii) advocating more measures for natural resources management a rural poor to local and central Government and iv) producing (as both MAFCP and Ministry of Environment did not do it), endorsing and advocating a draft for a sector development strategy, to be adopted by the Government; iv) establishing a Price and Market Information System for the main markets and paying for its maintenance and; v) establishing a system of self control between members to establish a kind of traceability to prevent over-exploitation of natural resources and reducing the space for the rush to supplies of improvised traders.
2. *Involve whenever possible Forestry users' associations* in regulating MAPs collection and training harvester. Whenever necessary, it could be possible also to establish in cooperation with the associations a system of dryer- cum-auction providing services to harvesters and contributing to regulate the trades. For example, should it prove impossible in some municipalities to control the collection of MAPs out of the licensed amount, the members of the Association (who include all the main traders) could agree to buy MAPs only through the auctions, establishing also a system of traceability and controls.
3. *Advocate the inclusion into the MAFCP Rural Development Strategy of measures to foster MAFCP sector.* Such measures should include both the use of incentives for rural infrastructures (e.g. dryers), for MAP cultivation (providing also a set of conditions compatible with environmental and biodiversity protection) and for reducing depopulation of inner areas.
4. *Introduce quality standards for MAPs,* in compliance with EU regulations.
5. *Foster the establishment of a small development fund participated by the leading entrepreneurs*, initially co-financed by the Government or by development projects, having the purpose to finance activities of common interest, such as training agronomists and producing dissemination material for cultivating MAPs, promoting abroad Albanian MAPs, training harvesters of wild MAPs etc. As a principle, the fund will have, on a smaller scale, the function that was played in the past by the Marketing Board in UK and in other former British colonies and that is still played by much larger organisation such as the Colombian "Fondo Cafetero".

More specifically, in the short-term, based also on the round table with EPCA and AAC, these activities are recommended:

- Provide small grants to for drying facilities at consolidation points to reduce post-harvest loses, and improve food safety and quality
- Provide international short-term advisor services to enable Albanian processors to increase their efficiency, in cooperation with EPCA.
- Support the participation of Albanian Herbs and Spice exporters in important relevant fairs abroad, and facilitating access to new potential buyers in USA and elsewhere.
- Assist the Association to structure and present policy recommendations to the Government of Albania