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CITRUS SECTOR STUDY

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

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EXECUTIVE SUMMARY

Albania has a strong tradition in the production of citrus products (namely oranges, lemon and mandarin), production of which is primarily concentrated in coastal areas. Mandarins are the dominant citrus product, making up about 2/3 of citrus production quantity and it is the citrus fruit that has marked the highest growth. Mandarin production has increased sharply in recent years from less than 100 Ha or less than 1000 ton in 2005 to 26,000 ton in 2016 and over 30,000 in 2017. Similarly, the production of lemons and oranges has followed also a growing trend. As a result, the import of mandarins has been characterized by a strong contraction resulting from increased domestic production (which in part has contributed to import substitution) while also exports have increased significantly over the last years.

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

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

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

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

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

The current study informs the financial institutions and other interested parties about the main opportunities to finance the sector. Citrus/mandarin plantations using cultivars demanded in the market, particularly export market and complete investment project (plantation, drip irrigation/fertigation system and other related investment) should be considered. At consolidators/

wholesalers' level, financial institutions may consider supporting storing facilities; this is likely the most pressing investment need. Although cold storage is not considered as an immediate investment need, expert opinion support that cold storage is necessary for the citrus/mandarin storing. Mandarin may be stored for four to six weeks. Investments in packaging house/facilities also represent a real financing opportunity for financial institutions. Consolidators who are dealing with export at Konispol area and wholesalers have plans to invest in packaging houses (sorting, grading and packing lines). This is particularly necessary in case they intend to reach more attractive, higher price export market segments.

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

Citrus is considered a priority sector for Albanian government - the sector has been included in public financial support schemes. The partial grant policy has important implications for financial institutions - they have the opportunity to co-finance the investment for 100% of investment amount out of which at least 50% short term loan (the part to be reimbursed by government) and at most 50% loan term loan (the part to be paid by the beneficiary).

1. INTRODUCTION

Background

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

Albania has a strong tradition in the production of citrus products (namely oranges, lemon and mandarin), production of which is concentrated in coastal areas. Mandarin is the dominant citrus product, with about 2/3 of citrus production quantity – it is the citrus fruit that has marked the highest growth. Mandarin production has increased sharply in recent years from less than 100 Ha or less than 1000 ton in 2005 to 26,000 ton in 2016 and over 30,000 in 2017. Also production of lemons and oranges follow a similar trend. As a result the import of mandarins has been characterized by a strong contraction resulting from increased domestic production (which in part has contributed to import substitution) while also exports have increased significantly over the last years.

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

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

The study objectives

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

More specifically, the study: (i) provides an overview of the main production trends, international trade trends and market trends; (ii) provides a 'snapshot' of value chain structure, flows and value chain governances with special focus on 'leaders in the value chain'; (iii) synthesizes the main points in a value chain through a SWOT analysis strategy, and (iv) recommend the main opportunity for (investment financing, working capital financing, and value chain financing) the banking system.

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

Methodology and approach

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

The targeted users

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

What the study is and is not

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

The report is not a full sector study or value chain study which typically provide a detailed analysis of actors in the value chain, supporting services (business services, banking services and other services or embedded services) and global, national and local economic environment.

The report structure

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

2. METHODOLOGY AND APPROACH

Sector selection

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

The citrus/mandarin value chain is considered a priority sector considering its export potential.

The focus of this value chain report is on mandarin, but when applicable, information is provided also on other types of citrus (oranges and lemons).

Data collection

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

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

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

Data analysis

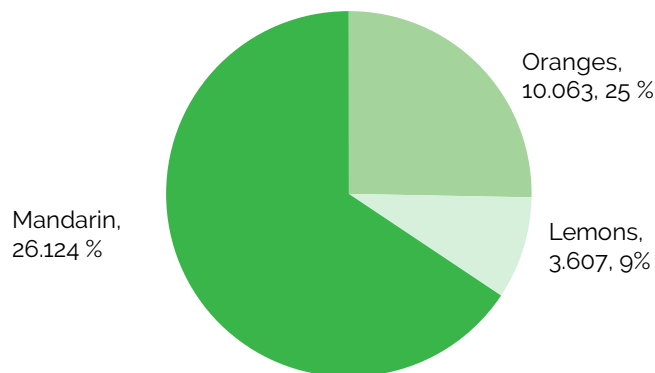
Regarding data/information analysis, secondary statistical data has been subject of standard descriptive analysis including tables and graphs depicting statistic and historical trends. Comparison of production and consumption trends with world, European and some cases with neighbouring countries was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

3. TRENDS AND PROSPECTS OF THE IDENTIFIED VC

3.1. PRIMARY PRODUCTION

Albania has a strong tradition in the production of citrus products (namely oranges, lemon and mandarin), production of which has been concentrated in coastal areas. Mandarin is the fastest growing and the dominant type of citrus, making up about 2/3 of citrus production quantity.

Figure 1: Production of citrus by type in 2016 (ton and %)



Source: INSTAT (2017)

Orange

Cultivated surface with oranges has had a declining trend. However, orange production has increased over the years, from less than 7000 ton in 2010 to more than 10,000 ton in 2016 – this increase has been triggered by increase of yields (Table 1).

Table 1: Production trends of Orange in Albania

Orange	2010	2014	2015	2016
Ton	6,631	4,120	8,347	10,063
Ha	370	222	223	209
Ton/Ha	18	19	37	48

Source: FAOSTAT (2018)

Lemons

Both production and cultivated surface of lemons has been continuously increasing in the last years from 700 tons and 70 Ha in 2005 to reaching respectively 3,607 tonnes and 530 hectares in 2016 (Table 2).

Table 2: Production trends of Lemon in Albania

Lemon	2005	2010	2014	2015	2016
Ton	700	1,637	2,933	2,613	3,607
Ha	70	194	350	430	530
Ton/Ha	10	8	8	6	7

Source: FAOSTAT (2018)

Mandarin

Mandarin production has increased sharply in recent years from less than 100 Ha or less than 1000 ton in 2005 to 26,000 ton in 2016 according to the statistics (Table 3) (and over 30,000 in 2017, according to the interviews). This increase in production is a result of a combined steady growth in both cultivated surface as well as in yields.

Table 3: Production trends of Mandarin in Albania

Mandarin	2005	2010	2014	2015	2016
Ton	900	5,037	13,904	17,014	26,104
Ha	100	271	491	628	723
Ton/Ha	9	19	28	27	36

Source: FAOSTAT (2018)

Despite the strong increasing trends of production in Albania, production of mandarin is still negligible when compared to EU.

Table 4: World production Trends of mandarin (000 Ton)

Country	2005	2010	2014	2015	2016
Albania	1	5	14	17	26
Montenegro	:	2	3	4	4
EU	2,825	3,278	3,333	4,691	3,892
World	24,002	23,955	30,552	32,969	32,793

Source: FAOSTAT (2018)

Albania's yield of mandarin production (36 ton/ha) was higher when compared to world average as well as EU average yield – demonstrating a highly performing subsector (in many agrifood subsectors, Albania lags behind EU in terms of yields performance).

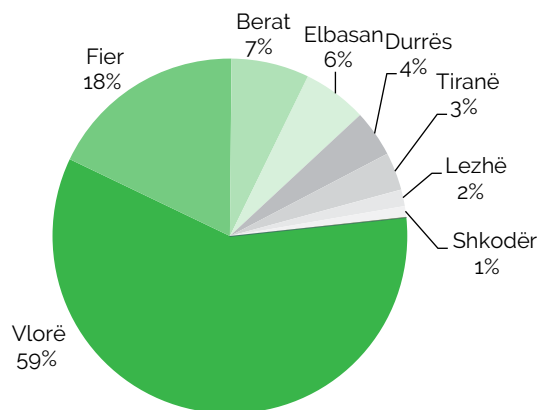
Table 5: World Yield Trends of Mandarin (Ton/Ha)

Country	2000	2005	2010	2014	2015	2016
Albania	:	9	19	28	27	36
Montenegro	:	:	17	23	23	24
EU	16	17	19	20	19	18
World	11	12	11	12	13	13
Europe	16	17	19	20	19	18
Southern Europe	16	17	19	20	19	18
Western Europe	12	13	14	20	13	18

Source: FAOSTAT (2018)

Regional distribution

Production of soft citrus is highly concentrated in the region of Vlorë. There are a few hundred commercial and semi-commercial growers in the regions of Vlorë and Fier, mostly located in Xarrë, Mursi and Konispol, just over the border with Greece. These areas have particularly favourable conditions for citrus growing; in particular, the area offers abundant water resources. Citrus fruit has been traditionally cultivated in this area.

Figure 2: Regional distribution of citrus production (2016)

Source: INSTAT (2017)

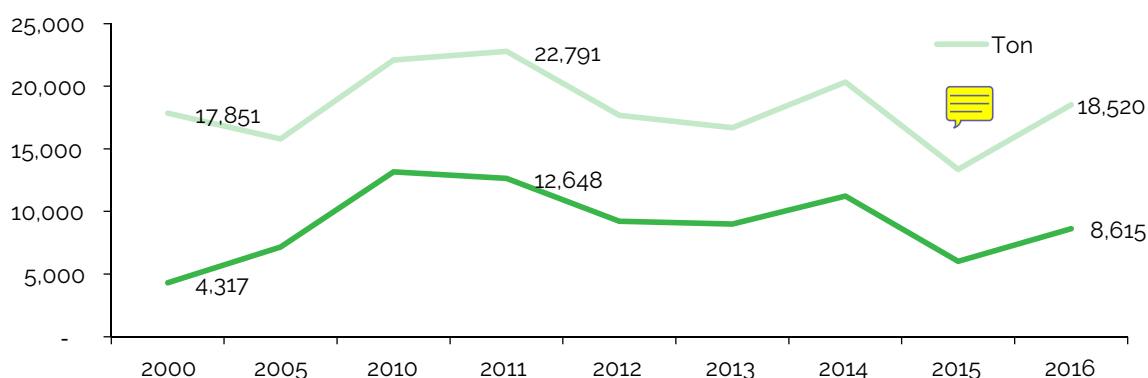
Table 6: Regional distribution of citrus production by type (2016)

Region	Oranges	Lemons	Mandarin
Vlore	2,020	517	20,842
Fier	4,004	1,340	1,831
Berat	887	377	1,552
Tirane	551	335	488
Durres	752	482	456
Elbasan	1,493	451	383
Lezhe	266	83	250
Others (Shkoder, Gjirokaster)	90	23	301
Total	10,063	3,607	26,104

Source: INSTAT (2017)

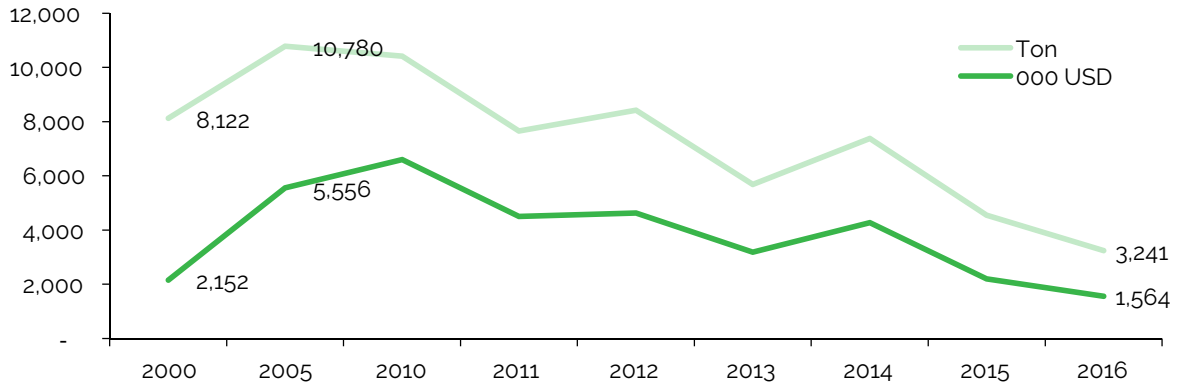
3.2. INTERNATIONAL TRADE TRENDS

Import of oranges remains high– the domestic production has not increased at same pace like other major fruits, thereby leaving an open window for imports. Whereas exports are negligible if at all.

Figure 3: Dynamics of the Albanian import of oranges

Source: UNSTAT Comtrade (2018)

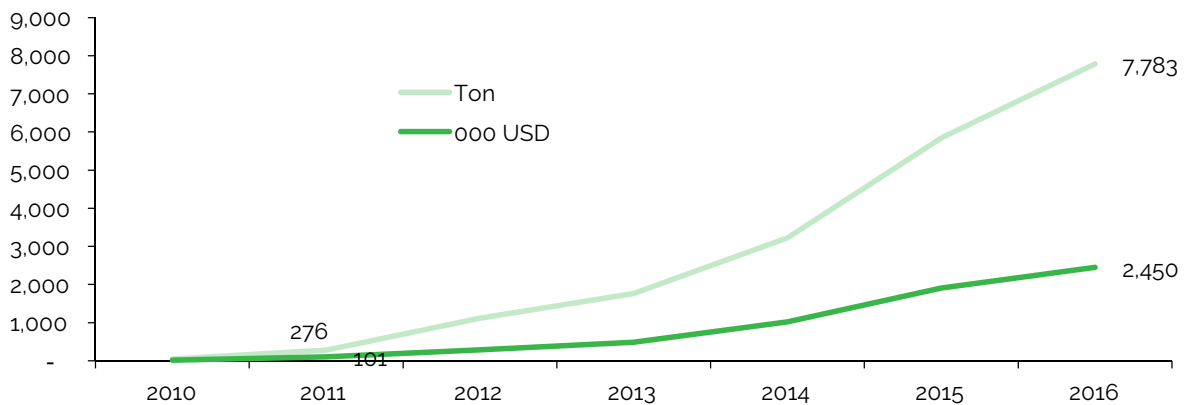
Different from oranges, the import of mandarins has been characterized by a strong contraction resulting from increased domestic production (which in part has contributed to import substitution and in part has been destined for exports).

Figure 4: Dynamics of the Albanian import of mandarins

Source: UNSTAT Comtrade (2018)

Imports take place mostly during the first 2-3 months of the year, considering that they are still available in the neighbouring countries (e.g. Greece and Italy) (due to existence of various varieties and storage conditions).

As mentioned before, export of mandarins has increased exponentially. Mandarins are mainly harvested and exported during November – December.

Figure 5: Dynamics of the Albanian exports of mandarin

Source: UNSTAT Comtrade (2018)

Balance of trade for the whole category of citrus is improving, however the trade deficit remains high (Table 7).

Table 7: Albanian import and export of citrus total (HS 0805)

Year	Exports			Imports			Export/	Export/
	000\$	Ton	Price	000\$	Ton	Price	Import	Import
							Value	Quantity
2000	:	:	:	6,966	27,404	0.25	:	:
2005	:	:	:	14,171	28,921	0.49	:	:
2010	41	93	0.43	21,805	34,896	0.62	0.2%	0.3%
2014	1,056	3,284	0.32	16,842	29,314	0.57	6.3%	11.2%
2015	1,928	5,880	0.33	10,110	20,641	0.49	19.1%	28.5%
2016	2,656	8,066	0.33	12,256	24,713	0.50	21.7%	32.6%

Source: UNSTAT Comtrade (2018)

In the case of mandarin, Albania has achieved a trade surplus since 2015, which has been improving in the following year, and is expected to further increase as newly planted mandarins will enter into production in the coming years.

Table 8: Albanian trade balance of Mandarin

Year	Exports			Imports			Export/	Export/
	000\$	Ton	Price	000\$	Ton	Price	Import	Import
							Value	Quantity
2000	:	:	:	:	:	:	:	:
2005	:	:	:	:	10700	:	:	:
2010	12	45	0.27	6596	10411	0.63	0.2%	0.4%
2014	1020	3227	0.32	4277	7374	0.58	23.9%	43.8%
2015	1910	5843	0.33	2197	4544	0.48	86.9%	128.6%
2016	2450	7783	0.31	1564	3241	0.48	156.7%	240.1%

Source: UNSTAT Comtrade (2018)

Import of oranges remains high (amounting to ca 10 million USD) and the trade deficit is also high – implying a potential for import substitution.

Table 9: Albanian import and export of oranges

Year	Exports			Imports			Export/	Export/
	000\$	Ton		000\$	Ton		Import	Import
							Value	Quantity
2000	:	:	:	4,316	17,850	0.2	:	:
2005	:	:	:	7,155	15,788	0.5	:	:
2010	9.9	5.8	1.7	13,156	22,083	0.6	0.08%	0.03%
2014	:	:	:	11,223	20,343	0.6	:	:
2015	6.0	16.1	0.4	6,019	13,361	0.5	0.10%	0.12%
2016	12.0	22.9	0.5	8,614	18,519	0.5	0.14%	0.12%

Source: UNSTAT Comtrade (2018)

Also import of lemons (similar to oranges) remains high (mounting to ca 2 million USD) and the trade deficit is also high – implying a potential for import substitution.

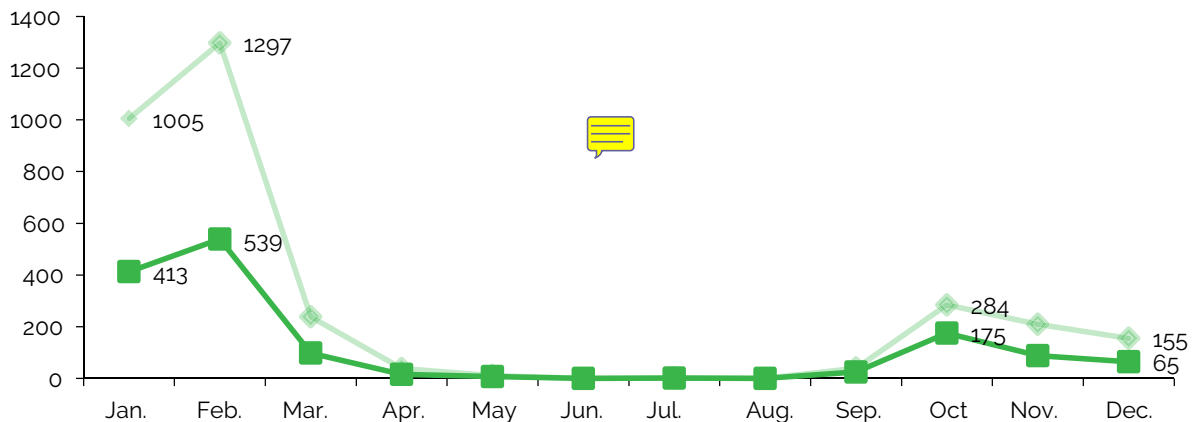
Table 10: Albanian import and export of lemons

Year	Exports			Imports			Export/	Export/
	000\$	Ton	Price	000\$	Ton	Price	Import	Import
							Value	Quantity
2000	:	:	:	473	1,343	0.4	:	:
2005	:	:	:	1,412	2,268	0.6	:	:
2010	5.9	12.1	0.5	1,898	2,180	0.9	0.31%	0.55%
2014	1.4	3.2	0.4	1,163	1,351	0.9	0.12%	0.24%
2015	:	:	:	1,784	2,553	0.7	:	:
2016	59.8	42.9	1.4	1,961	2,759	0.7	3.05%	1.55%

Source: UNSTAT Comtrade (2018)

Figure 6 below shows the monthly dynamics of import of mandarins in 2016.

Figure 6: Albanian monthly import of mandarins in 2016 (ton)



Source: EUROSTAT (2018)

Kosovo is the main exporting partner making up around 80% of total exports of citrus, in general, and mandarins specifically. A part of products that are exported to Kosovo are further re-exported to other countries in the region.

Table 11: Exports of citrus fruit by partner country, 2017

Citrus Fruit	Jan.	Nov.	Dec.
Kosovo	80%	77%	78%
Total (Ton)	402	3,483	5,675

Source: EUROSTAT (2018)

Citrus are primarily imported from Greece, followed by Italy and Turkey.

Table 12: Imports of citrus fruit by partner country, 2017

Citrus Fruit	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Greece	72%	87%	90%	79%	60%	47%	46%	47%	48%	23%	59%	74%
Italy	27%	10%	4%	8%	15%	10%	0%	0%	2%	46%	2%	11%
Turkey	0%	3%	4%	11%	18%	15%	15%	0%	18%	28%	35%	14%
Total (Ton)	2,960	3,478	3,284	2,211	954	725	679	836	619	1,121	781	2,132

Source: EUROSTAT (2018)

3.3. MARKET

3.3.1. International market

Albania has negative trade balance for citrus. However, the export trend is quite impressive - the citrus export annual growth between 2013 and 2017 for this product is 47% despite a decline in 2017 compared to 2016 (Table 12).

Table 12: Citrus export performance

Product label	Value exported in Product label 2017 (USD thousand)	Trade balance 2017 (USD thousand)	Annual growth in value between 2013-17 (%)	Annual growth in value between 2016-17 (%)	Annual growth of world imports between 2012-16 (%)	Ranking in world exports
All products	61,556	-3,564,766	-3		-3	128
Agricultural products	236,900	-764,546				
Citrus	2,478	-7,577	47	-7	2	66

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

Export of citrus/mandarin occurs under increasing international demand for these products. Albania is ranked 66th in the world for exports of citrus. It is to be noted, however, that the demand of current importing countries is declining, meaning that Albania should redirect its export destinations.

3.3.2 Domestic market

Imports share to domestic consumption remain high, despite improvements in trade balance during the last years. In the case of mandarins, the exports have increased from almost inexistent to 30% of the production (see Table 14).

Table 14: Supply balance of mandarin in Albania (000 ton)

Category	2005	2010	2015	2016
Production	0.9	5.0	13.9	26.1
Import	10.7	10.4	4.5	3.2
Export	:	0.04	5.8	7.8
Supply	11.6	15.3	12.6	21.5
Import/supply	92.2%	67.7%	35.7%	14.9%
Export/production	:	0.8%	41.7%	30.0%

Source: Author calculations based on data from INSTAT, EUROSTAT and UNSTAT (2018)

After the transition to a market economy, which began in early 1990s, the demand of Albanian consumers for fruits increased significantly. As a result of trade liberalization and combining expanded retail, production and postharvest/storage capacities, as well as with increase in incomes and standards of living of the Albanian population, consumption of fruits has more than doubled by the late 2000ies as compared to the pre-transition period¹.

Apparent consumption of oranges and mandarins in Albania is lower than the global average consumption per capita which in 2013 was 24.6 kg/capita, while in Albania was 12.6 kg/capita. Montenegro has the highest consumption per capita of oranges and mandarins from Balkan countries, while Serbia has the lowest consumption per capita.

Table 15: Apparent consumption of oranges and mandarins in Albania and other countries and regions (Kg/capita)

Country	2000	2005	2010	2011	2012	2013
Albania	8.7	10.7	14.8	13.7	13.4	12.6
Montenegro	:	:	26.3	27.9	28.1	28.9
Serbia	:	:	8.9	9.8	8.9	9.0
Macedonia	4.1	9.7	14.7	12.4	12.0	11.8
EU	11.4	12.0	12.5	13.3	12.6	12.4
Europe	22.7	27.8	27.0	29.5	29.5	30.3
World	16.5	21.2	21.5	23.8	23.9	24.6
Eastern Europe	4.0	7.1	8.3	9.1	9.7	10.5
Southern Europe	32.2	33.9	34.1	32.9	28.8	29.3
Western Europe	20.4	24.6	23.8	31.6	32.7	33.4

Source: FAOSTAT (2018)

Note: latest available figures for apparent consumption date back to 2013 – although this seems out-dated information, it is useful to be considered as indicative orientation, since overall, consumption pattern change slowly over time.

1 Zhllima, E., Imami, D., & Merkaj, E. (2012). Food consumer trends in post socialist countries: the case of Albania. *Economia agro-alimentare*.

The origin of production tends to be quite an important factor for most Albanian consumers. According to various studies, most consumers choose their products based on their origin (domestic versus imports). Previous studies have shown that there is a clear preference for domestic fruits, including citrus, for which there is also a preference related to specific territory within Albania, which represents a potential for marketing-related investments². Most Albanian consumers view organic products as safer and healthier compared to other (conventional) products. However, most consumers are not familiar with organic certification (requirements). The market for organic food in Albania is still small, but the consumers' preference for organic food represents a potential for market development. The perceptions on a link between organic food and health-related issues represent an important advantage for the production of organic food, and can be capitalized in marketing promotions and investment by producers/traders³.

2 Imami, D., & Skreli, E. (2013). Consumer preferences for regional/local products in Albania. Technical report prepared for FAO.

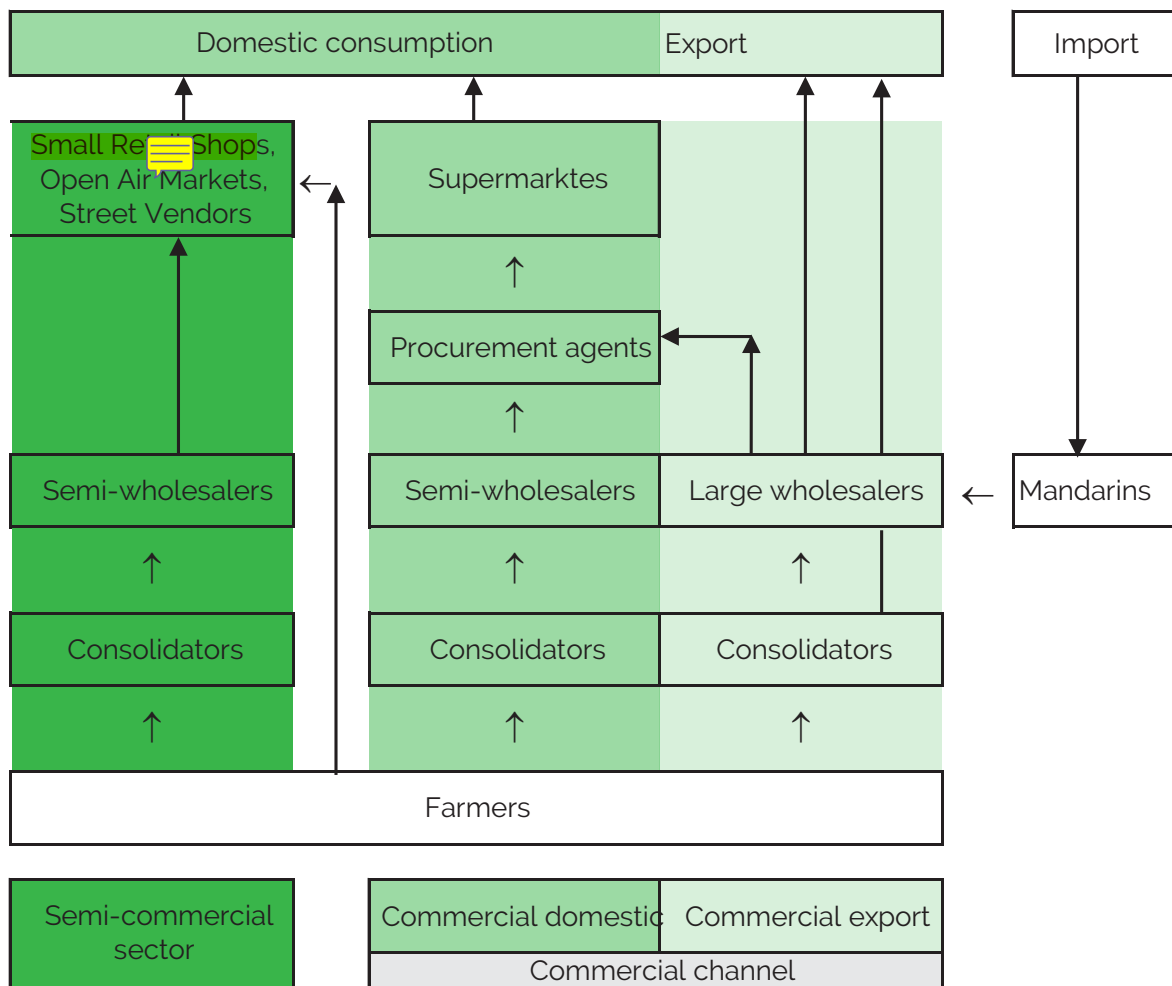
3 Imami, D., Skreli, E., Zhllima, E., & Chan, C. (2017). Consumer attitudes towards organic food in the Western Balkans- the case of Albania. *Economia agro-alimentare*.

4. VALUE CHAIN STRUCTURE AND KEY ACTORS

4.1. VALUE CHAIN STRUCTURE AND ACTORS PROFILE

The Figure 7 maps the mandarin value chain actors and the main channels through which fruit flows from farmers to end use consumer.

Figure 7: Mandarin value chain map



Source: Authors own design

The three main actors in the mandarin value chain are farmers, consolidators and wholesalers. The latest category is consisted of semi-wholesalers and large wholesalers. Description of the profiles of the main actors is summarized below and it is followed by the description of the value chain flows and value chain governance.

Farmers

While non-commercial garden production of mandarins is left out of the analysis, mandarin producing farmers reaching the market may be represented by two groups of farmers, namely semi-commercial and commercial farmers and commercial farmers.

This semi-commercial farmers are small growers with orchards typically less than 0.5 ha and who use limited investments in production technology. These farmers are mostly found scattered around the districts of Vlora, Fier, Lushnja and Berat. Mandarin commercial farmers consist of a cluster of farmers having plantations larger than 0.5 ha (Table 16) and are concentrated in Konsipol municipality. These farms use modern production technologies and practices aimed at profit maximization.

Table 16: Mandarin commercial farms (for 2017)

Farmers categories	Number	%
Between 6 and 10 dn	22	43.1
Between 11 and 20 dn	7	13.7
Between 21 and 50 dn	10	19.6
over 51 dn	3	5.9
Total	42	100

Source: MARD data processed by the authors

Consolidators

The mandarin consolidators operating in Konsipol municipality represent a key actor in the mandarin value chain. They supply the wholesaler and retailers but also export to other countries. The consolidators' part of mandarin market is becoming quite competitive. According to the interviews, there are reportedly 6 consolidators operating in Konsipol area. Their storage capacities are, however, insufficient (considering also the fast-growing production).

Large wholesalers

At present, there are a limited number of operators of this category dealing with mandarin (Doni Fruit is an example). This group of operators/traders appear to have invested in larger and modern assets (larger stores, cooling rooms, sorting, cleaning and packaging lines, mechanized loading and unloading equipment), tend to have more durable relations with both suppliers and international buyers and also have plans for new investment.

Procurement agents (domestic market)

Procurement agents refer to small traders who buy from various wholesalers or farmers and cater better to the needs of small retail units that dominate fruit and vegetable retailing (wider range of products, smaller volumes, and lower prices for local fruits and vegetables due to more direct channels).

4.2. VALUE CHAIN FLOWS AND CHAIN GOVERNANCE

Product flows, information and financial flows

Product flow. Figure 7 maps the mandarin value chain in Albania. Within the commercial sales of mandarins in Albania, we can distinguish three main channels: semi-commercial domestic, commercial domestic and commercial export.

Producers in the *semi-commercial* sector sell directly or through semi-wholesalers to retailers in nearby towns. In terms of volumes, this channel will likely remain stable for the foreseeable future.

In the case of *commercial domestic channel*, farmers sell directly or through consolidating traders mostly to smaller wholesalers who operate on the main wholesale markets in Lushnja and Tirana. These semi-wholesalers sell to retailers through procurement agents. An emerging commercial export sector is becoming a growingly interesting channel. In this case, farmers sell to consolidators (who deal with exporting) or sell directly to large wholesalers who have already well-established trade relationships with buyer in European or regional counties. The main export market for mandarin is Kosova. Kosova traders usually buy the product at local consolidators' premises and transport it using their own trucks.

Information flows. Consolidators in the mandarin sector have provided information to farmers on cultivars to be planted and cultivar mix to assure a smooth supply in the market (refer to value chain governance).

Financial flows. Immediate or short-term cash-based transactions are the prevailing financial relationships between supplying mandarin farmers and consolidators. Consolidators' own savings (or occasionally loans/overdrafts) may be used to pay farmers.

Value chain governance

Consolidators are becoming a key actor in the mandarin value chain (similar to consolidators in the case of the apple value chain, which has been analysed in another report). There is already observed coordinated action in the mandarin sector lead by consolidators. Some consolidators have provided guidance to farmers with respect to mandarin cultivars demanded in the export market and more importantly guidance on cultivar mix in order to assure a smooth supply. The consolidators' part of mandarin market is becoming quite competitive; reportedly (according to the interviews) there are 6 consolidators operating in Konsipol area. Such a competition is expected to motivate building more stable relationship with supplying farmers. Visionary consolidators who have plans to target the EU market consider critical the establishing of working relationships with farmers in order to procure high quality fruits.

5. PRODUCTION TECHNOLOGY PROCESSES

In the following table (Table 17), there are shown the main mandarin production processes (which are related to main production expenditure/costs), which include pruning, fertilization, chemical treatment, irrigation and harvesting.

Table 17: Calendar of mandarin production processes

Main type of expenditures	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Winter & summer pruning												
2. Basic & complement fertilizer												
3. Chemical treatments, spraying												
4. Irrigation												
5. Harvest												

Source: Expert assessment, based on desk review and interviews

Harvesting of citrus takes place during October – December (there is some variation depending on the type of product).

Table 18: Harvesting calendar by type of production

Type of product	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Lemon												
Mandarin												
Orange												

Source: Expert assessment, based on desk review and interviews

As it may be observed from the above information/ tables, there is a time lag between the moment that the costs occur and the sales. Thus, there is a time window for short-term loans that could be covered by banks.

6. SWOT ANALYSIS AND FINANCING NEEDS

6.1. SWOT ANALYSIS STRATEGY

The following SWOT analysis strategy is conducted with the objective to identifying the financing opportunities in the mandarin sector.

Table 19: Mandarin sector: SWOT analysis strategy

	STRENGTHS (+)	WEAKNESSES (-)
	A growing cluster of commercial mandarin growers in South Albania	Unsuitable cultivar mix
	Modern technology applied by commercial growers	Insufficient storage capacity
	Well operating export channels	Lack of sorting, grading, packing and labelling lines, resulting in improper low price
		Lack of mechanization at storage level
OPPORTUNITIES (+)	S (+) / O (+) STRATEGY	W (-) / O (+) STRATEGY
Still unexploited land area suitable for mandarin cultivation	Support new plantations with market preferred mandarin cultivars	
Still unmet domestic demand and consumer preference for domestic mandarin	Support investment in sorting, grading, packing and labelling lines, resulting in improper low price	
Emerging export opportunity		Support investment in storage capacity
THREATS (-)	S (+) / T (-) STRATEGY	W (-) / T (-) STRATEGY
Fierce competition from neighbouring Greece and Italy	Support fertigation technologies at commercial farmer level to produce high quality fruits at low cost	Support mechanization at storage level to reduce costs

6.2. FINANCING NEEDS

6.2.1. Investment trends and financing needs

Investment trends

Establishment of citrus tree plantations is a recent trend in Albania. Despite the fact that Fier comes in the first place in terms of citrus production, Vlora region is the most important region in terms of commercial farming. Within Vlora region, Konispol represents the most important cluster

of citrus production, particularly mandarin production. Farmers in this area have established model citrus plantations using up-to-date technology. Field interviews inform that there is dynamic trend of citrus plantation, particularly mandarin plantation. That having said, farmers in Fier, Elbasan, Berat and other regions also find it beneficial to establish commercial citrus farms. Local consolidators have invested in storages capacities. Some investment in terms of marketing lines and cold storages are observed only at large wholesalers dealing with – among others – citrus as well.

Investment financing needs

Following the SWOT analysis strategy and investment trends, investment financing needs are summarized in the Table 20.

Table 20: MAPs investment financing needs

Type of investment	Farmers	Consolidators	Wholesalers
Support new plantations with market preferred mandarin cultivars	■		
Support fertigation technologies at commercial farmer level	■		
Support investment in storage and cold storage capacity			■
Support mechanization at storage facilities (tractor lifts, palletized transport			■
Support investment in sorting, grading, packing and labelling lines, in order to improve produce marketing and get a better price			■



Recent trend, and expert assessment show, that citrus farming, particularly mandarin farming is a remunerating farming activity. At the best case, given a yield of 50 MT per ha and the farm gate price of ALL 45 per kg, gross income per ha equals ALL 2.2 million which is likely one the most remunerating agricultural activities in Albania. Hence, the establishment of new citrus/mandarin plantations using cultivars demanded in the market, particularly export market, represent an opportunity for financial institutions. Reportedly, the mandarin production in Konsipol amounts to 30 thousand MT, and it is expected to reach 50 to 60 thousand in a few years. Hence, it is a 'golden opportunity' for financial institution to support the current plantation trend. Complete investment project (plantation, drip irrigation/fertigation⁴ system and other related investment) should be considered. In existing plantations where irrigation/fertigation system has not been installed, supporting such systems separately may also be considered.

Consolidators and wholesalers dealing with exports have invested in storing facilities but additional investments are needed; this is likely the most pressing investment need. Although,

4 Fertigation: Plant fertilisation/nutrition through irrigation system

cold storages are not considered as an immediate investment need, expert opinion support that cold storage are necessary for the citrus/mandarin storing for at least two reasons: (i) deal with supply peak and (ii) consolidating supply to answer export demand. Technically, mandarin can be stored for four to six weeks.

Packaging houses also represent a real financing opportunity for financial institutions. Despite some reluctance by some consolidators - currently mandarin is exported mainly to Kosova not classified by quality or size - consolidators who are dealing with export at Konsipol area and wholesalers have plans to invest in packaging houses (sorting, grading and packing lines). This is particularly necessary in case they intend to reach more remunerating/attractive markets.

Box 1: Public support schemes for Albanian agriculture

There are two major public support schemes for Albanian Agriculture, namely Annual National Support Schemes (ANSS), and EU like Rural Development Programme, IPARD. While the latest aims at enhancing competitiveness and implementing EU (safety, quality and environment) standards and targets the most competitive businesses, ANSS has multiple policy objectives and a broader coverage.

Objectives and measures for ANSS-2018 area summarized below:

- Increase of competitiveness by providing support to investment (new fruit tree plantations, investments in marketing), supporting innovation technologies, and certification and insurance
- Vertical and horizontal and business formalization
- Diversification of rural activities.

While the ANSS have traditionally provided support for meeting multiple policy objectives, including increased competitiveness, recently there has been a growing attention towards meeting the standards.

National subsidy schemes have traditionally been changing from year to year (often drastically). The budget allocated for ANSS for 2018 is Euro 20 million. For investment support, a similar scheme of partial grant policy (at least 50% public support) is in place.

Another major Program is EU like Rural Development Programme, IPARD, which enables support for investment aiming at improving competitiveness and meeting national and EU standards, through co-financing investment by a grant (e.g. 50% however the exact value depends on a number of criteria). It is expected that IPARD calls for applications (which will also highlight the details of the eligibility criteria) will start in the second half of 2018. For this programme a budget has been approved of 71 Mill Euro from EC and 24 Mill Euro grant from Albanian government (75% EU: 25% Albanian government), so there is a 94 Mill Euro grant available for investments at farm and processing/marketing level during 2014 – 2020.

6.2.2. Operating capital financing needs

Operating capital financing trends

Farmers own savings are typically used to finance their financing needs for working capital and traders own money is typically used to finance traders need for working capital; thus, taking a short-term loan is not common.

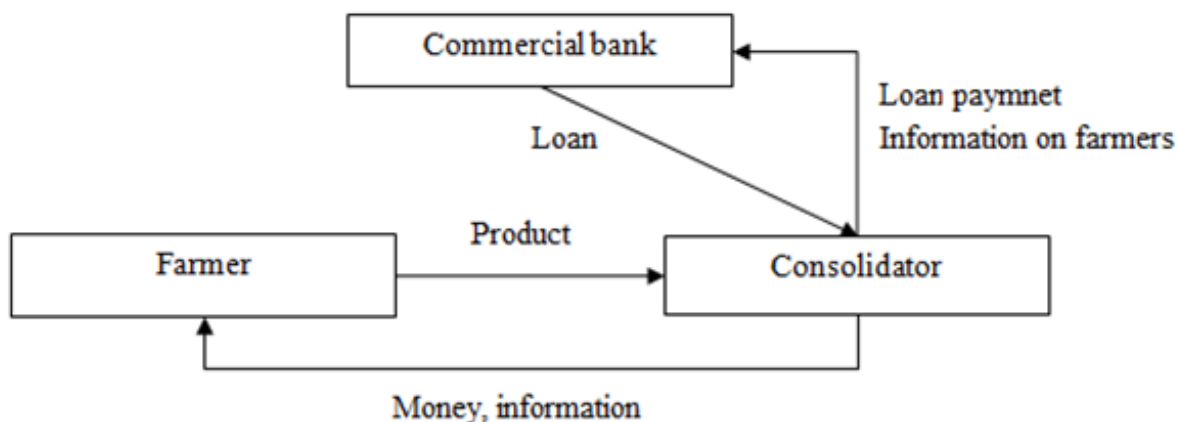
Operating capital financing needs

While buyers in the mandarin sector usually have not used loan to deal with the short-term capital needs, the (competitive) market structure at consolidators' level will push them to compete for supplying farmers. A key dimension of this relationship is timely payment and hence the need to avail short term loans – hence a financing opportunity to be explored by financial institutions.

6.2.3. Value chain financing

The product, financial and information flows between local consolidators and farmer contains potential for value chain financing. The Figure 8 below synthesizes the way the value chain financing may be designed.

Figure 8: Value chain financing the citrus (mandarin) sector



Source: authors' on design

The competitive structure at consolidators' level will motivate them to establish closer relationships with supplying farmers, including timely payment to them. In order to make timely payments to the farmers, the consolidator may avail a short-term loan at a commercial bank and transfer the money to farmers' bank account - the money transfer to farmers' bank accounts is a recent phenomenon in Albania. Once the consolidator sells the produce, he pays the loan back. It is important, however, to emphasise that the consolidator may provide the bank with relevant information on farmers, including when the money has been transferred to their bank account.

7. CONCLUSIONS

Albania has a strong tradition in the production of citrus products (namely oranges, lemon and mandarin), production of which has been concentrated in coastal areas. The category of fruits that has marked the highest growth is that of citrus, within which, mandarin which has been a success story. Mandarins are the fastest growing and the dominant citrus product (making up about 2/3 of citrus production quantity).

Mandarin production has increased sharply in recent years from less than 100 Ha or less than 1000 ton in 2005 to 26,000 ton in 2016 and over 30,000 in 2017 – also production of lemon and oranges follow a similar trend. As a result the import of mandarins has been characterized by a strong contraction resulting from increased domestic production (which in part has contributed to import substitution) while also exports have increased significantly over the last years.

While Albania has negative trade balance for citrus, the citrus/mandarin export trend is quite impressive - the export annual growth between 2013 and 2017 for this product is 47%. Export of citrus/mandarin occurs under increasing international demand for these products. In world exports, Albania ranks 66th for the world export of citrus. It is to be noted however demand of current importing countries is declining meaning that Albania should redirect its export destinations.

The current study informs the financial institutions and other interested parties in supporting citrus sector about the main opportunities to finance the sector. Citrus/mandarin plantations using cultivars demanded in the market, particularly export market; complete investment project (plantation, drip irrigation/fertigation system and other related investment) should be considered. At consolidators/wholesalers' level, financial institutions may consider supporting storing facilities; this is likely the most pressing investment need. Though, cold storages are not considered as an immediate investment need, expert opinion support that cold storage is necessary for the citrus/mandarin storing. Mandarin may be stored for four to six weeks. Packaging house also represent a real financing opportunity for financial institutions. Consolidators who are dealing with export at Konispol area and wholesalers have plans to invest in packaging houses (sorting, grading and packing lines). This is particularly necessary in case they intend to reach more remunerating markets.

The consolidators are emerging as key leader in the citrus/mandarin value chain sector. The relationships that have been built (and expected to strengthen) with supplying farmers contain also the potential for both developing both financial products related to short-term working capital and value chain finance.

Citrus is considered a priority sector for Albanian government - the sector has been included in all public financial support schemes, including recent support schemes. The current partial grant policy has important implications for financial institutions - they have the opportunity to co-finance the investment for 100% of investment amount out of which at least 50% short term loan (the part to be reimbursed by government) and at most 50% loan term loan (the part to be paid by the beneficiary).

8. REFERENCES

EUROSTAT (2018). Database available at <http://ec.europa.eu/eurostat>

FAOSTAT (2018). Database available at <http://www.fao.org/faostat/en/>?

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

Imami, D., & Skreli, E. (2013). Consumer preferences for regional/local products in Albania. Technical report prepared for FAO.

Imami, D., Skreli, E., Zhllima, E., & Chan, C. (2017). Consumer attitudes towards organic food in the Western Balkans-the case of Albania. *Economia agro-alimentare*.

INSTAT (2017). Database available at www.instat.gov.al

UNSTAT (2018). Trade database <https://comtrade.un.org/data/>

Zhllima, E., Imami, D., & Merkaj, E. (2012). Food consumer trends in post socialist countries: the case of Albania. *Economia agro-alimentare*.



Tiranë, 2019