



**Carrying out selected sectoral analysis as a solid ground for the preparation of
IPARD III programme and of Strategy for Agriculture, Rural Development and Fishery
2021-2027**

Project number: 2017.2192.7-001.00

**Wine Sector Study Report
Final**



May 2021

LIST OF ABBREVIATIONS AND ACRONYMS

ALL	Albanian Lek
ANES	Albanian National Extension System
ARDA	Albanian Rural Development Agency
SAGSI	State Authority of Geo-space Information
ATTC	Agricultural Technology Transfer Center
AUT	Agricultural University of Tirana
CAP	Common Agricultural Policy
CEFTA	Central European Free Trade Agreement
DCM	Council of Ministers
GDA	General Directorate of Accreditation
DSA	Development Solutions Associates
EC	European Commission
EU	European Union
FADN	Farm Accountability Data Network
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practice
GDIP	General Directorate of Industrial Property
GoA	Government of Albania
HL	Hectoliters
IDRA	Institute for Development and Research Alternatives
ILO	International Labor Organization
INSTAT	Albanian Institute of Statistics
IPARD	Instrument of Pre-Accession in Rural Development
ISARD	Inter Sectoral Agricultural and Rural Development Strategy
FSVI	Food Safety & Veterinary Institute
MARD	Ministry of Agricultura and Rural Development
MEFA	Ministry of Europe and Foreign Affairs
NFA	National Food Authority
NGO	Non-Government Organization
PDO	Protected Designation of Origin
PGI	Protected Geographical Indications
RAAE	Regional Agency of Agricultural Extension
AAC	Association of Agricultural Collaboration
SME	Small and Medium Sized Enterprises
TSG	Traditional Specialty Guaranteed
VAT	Value Added Tax
WHO	World Health Organization

LIST OF TABLES

Table 2-1: Distribution of vineyard farms by size (2019).....	9
Table 2-2: Regional Distribution of vineyard areas and pergolas in Albania (2019).....	10
Table 2-3: Regional distribution of commercial farms	11
Table 2-4: Area distribution by cultivars	12
Table 2-5: Margin analysis for grape production intended to wine	13
Table 2-6: Plant protection retail units and importing companies by qarks	14
Table 2-7: Fertilisers retail units and importing companies by qarks	14
Table 3-1: Number of alcoholic drinks establishments.....	17
Table 3-2: Capacity, capacity exploitation and plans for investment.....	18
Table 3-3: Products, consumers, prices and quality schemes	20
Table 3-4: Applications and registered geographical indications/designation of origin	21
Table 3-5: Inputs: grape as raw material.....	23
Table 3-6: Access to know how in wine processing technology.....	24
Table 4-1: Excise tax for wine	28
Table 4-2: Regional distribution of support for vineyard plantations (2007-2013)	30
Table 4-3: IPARD supported investment in Grape and wine sector	31
Table 5-1: Albania’s wine trade flows.....	33
Table 5-2: Albania’s geography of wine imports	34
Table 5-3: Albania’s geography of wine exports (tons)	34
Table 5-4: Wine per capita consumption for population above 15 years old 35	
Table 6-1 - Safety/quality standards in wine sector of Albania.....	38
Table 7-1: Investment during the period 2014 through 2017	40
Table 7-2: Investment in the wine sector 2015-2018 (thousand Euro).....	41
Table 7-3: Investment during last five years and planned investment	42
Table 8-1: Processors – farmers relationships.....	45
Table 9-1: SWOT analysis for vineyard farmers	50
Table 9-2: SWOT analysis for wine processors	51
Table 9-3: SWOT analysis for wine sector.....	51
Table 10-1: Farmers needs for advice and capacity building and service providers.....	53
Table 10-2: Processors needs for advice and capacity building and service providers	55
Table 10-3: Composition of ANES staff in Albania.....	56
Table 12-1: Eligible investments and relevant impact.....	63
Table 12-2: Viable vineyard size	64
Table 12-3: Absorption capacity at farm level	65
Table 13-1: Regional distribution of grape production.....	72
Table 13-2: Autochthon grape cultivars	72
Table 13-3: Public vocational schools offering tourism and related directions.....	74

LIST OF FIGURES

Figure 1: Regional distribution of grape production in Albania (2019)	10
Figure 2: Vineyard yields by regions (2019).....	11
Figure 3: Distribution of alcoholic/wine processing units.....	17
Figure 4: Government support for vineyard plantation between 2007 and 2019.....	30
Figure 5: The impact of support to vineyard plantation	31
Figure 6: The trend of vineyard area in Albania for the period 2010-2019.....	41
Figure 7: Wine value chain actors.....	44
Figure 8: Wine sector key development trends during last five years and future expected trends	47
Figure 9: The new structure of public extension service	56

LIST OF BOXES

Box 1: The draft Law on Vineyard and Wine.....	32
Box 2: Vlora Agricultural Technology Transfer Center	58

Contents

1	INTRODUCTION	6
1.1	Background and objectives	6
1.2	Methodology.....	7
2	FARMERS	9
2.1	Growers.....	9
2.2	Products	11
2.3	Access to markets, inputs and services	13
2.4	Key features and challenges	15
3	PROCESSING INDUSTRY	17
3.1	Structure of the industry	17
3.2	Main products and product types /characteristics	18
3.3	Access to markets, inputs and services	22
3.4	Key features and challenges	26
4	GOVERNMENT POLICY FOR THE SECTOR	28
4.1	Strategic documents	28
4.2	Relevant fiscal and trade policies	28
4.3	MARD support programmes.....	29
4.4	Other agriculture direct and indirect support measures and facilities.....	31
4.5	Quality policy for the wine sector.....	32
5	MARKET AND TRADE	33
5.1	International trade flows and evolution over time	33
5.2	Domestic market	35
5.3	Profile of main actors in the distribution chain	36
5.4	Key features and challenges	37
6	ATTAINMENT OF RELEVANT NATIONAL & EU STANDARDS.....	37
6.1	Food safety	37
6.2	Use of inputs, PPP	39
6.3	Environmental aspects.....	39
7	PAST AND FUTURE INVESTMENTS TRENDS.....	40
7.1	Past trends	40
7.2	Expected future trends	43
8	VALUE CHAIN ORGANISATION & ENABLING ENVIRONMENT.....	44
8.1	Value chain map	44
8.2	Value chain flows and chain governance	44
8.3	Collective actions	46
9	POTENTIALS AND NEEDS OF THE SECTOR.....	47
9.1	Key sector trends	47
9.2	SWOT analysis and potential needs of the sector	50
10	TRAINING AND ADVISORY NEEDS FOR THE SECTOR.....	53
10.1	Technical and vocational training	53
10.2	Training to value chain actors	53
10.3	Improving advisory and technical services.....	55
11	ALIGNING TO THE GREEN DEAL.....	61
11.1	EU green deal relevance to the sector	61

11.2	EU green deal potential actions	61
12	OUTCOME.....	62
12.1	Key findings and conclusions from the sector analysis related to IPARD III program	62
12.2	Priority investments in primary production	63
12.3	Priority investments in processing.....	65
12.4	Recommendations for complementary interventions	67
	REFERENCES	69
13	ANNEXES.....	71
13.1	List of interviewed stakeholders	71
13.2	Regional distribution of grape production.....	72
13.3	List of autochthon grape cultivars.....	72
13.4	Extension service strategic plan.....	73
13.5	Public vocational schools	74

1 INTRODUCTION

1.1 Introduction

Albania is preparing the IPARD III Programme for the period 2021-2027. This study provides the analytical background for the design of the Measure 1 (Investment in physical assets of agriculture holdings) and Measure 2 (Investments in physical assets of processing and marketing of agricultural products) as well as can serve as a background for other Measures. In addition, this study serves as a background for the preparation of the Strategy for Agriculture and Rural Development (SARDF) 2021 – 2027.

The objective of the sector analysis is to give a quantitative and qualitative description of the sector trends with special focus on the needs for investments and technical assistance. A SWOT analysis is prepared to identify the potential and weak points as a base to provide guidance for the support (namely investments). The study also aims to provide other recommendations for the development of the sector. Some of the recommended actions cannot be implemented within the framework of IPARD III but are nonetheless considered as important steps for balanced development in the olive and olive oil sector. In addition to the recommendations in the frame of IPARD III program, the study provides recommendations for the development of the sector and for SARDF preparation. Some of the recommended actions cannot be implemented within the framework of IPARD III but are nonetheless considered as important steps for balanced development in the sector and for strategy development.

1.2 Background and objectives

Wine processing represents a high potential for growth and diversification that is currently not fully taken advantage of, e.g. improving quality, developing new products and services related to the wine industry (e.g. agro-tourism), increasing production, facilitating export trade and attracting both in terms of foreign and domestic investment. In addition, focussing on small producers offers a great potential for employment and income generation, as well as increasing the sustainability of these producers. As a secondary effect, it may also contribute to reducing the migration from rural to urban areas and from Albania towards other countries by increasing income-generation opportunities for young people living in rural areas.

Most agriculture holdings in Albania are mixed and (semi)subsistence farms. That having said, slightly more than one in ten farmers (35,666 farmers out of 320000 farms in Albania) have vineyards, employing (an estimated) 70 thousand people. Since the year 2000, the production of grapes from vineyards in Albania has increased drastically: in 2019 compared to 2000, the production of vineyard grape increase 3.5 times (from a low base of 35,522 tons in 2000 to 113,854 tons in 2019). A growing trend of vineyards areas is observed as well. During 2000ies, area under grape has been growing rapidly – it almost doubled. The growing trend in vineyard plantation continued in the last decade as well when the vineyard area has increased by 115 ha per year reaching 10,842 ha in 2019.

Despite positive development at vineyard farming, wine production in Albania is relatively small compared to its potentials. In 2019 Albania produced 23,470 tons of wine. After a steep increase between 2000 and 2013 (wine production increase 5 times, from 7413 tons in 2000 to 38,000 tons in 2013), wine production dropped drastically to 23,300 tons in 2014 and remained almost stable till 2019. Though stagnation seems to be the trend in wine production, a more detailed suggests an upward trend particularly for wineries producing high and medium quality wine.

Albania has a clear trade deficit in wine. Imports have been growing over time from 2,549 tons in 2010 to 4,934 tons in 2019. Exports are very modest and fluctuation between 5 and 28 tons. This combination of growing import and modest exports has resulted in a growing trade deficit; the trade deficit increased from 4.4 million Euro in 2010 to 11.0 million Euro ne 2019.

In the wine sector, there is a potential to substitute imports (there is unmet and even growing demand for wine in Albania) and also benefit from the growing tourism market, if quality and efficiency improvements were to be pursued at farm/grape production level and processing level. The wine value chain is considered a priority sector considering import substitution potential and the specific link to (agro)tourism.

Past support has been crucial to achieve growth, however, various needs for investments and technical assistance have not been tackled by previous interventions - some of them can be tackled by IPARDIII.

1.3 Methodology

1.2.1 Primary data collection

The primary data collection consisted of semi structured in-depth interviews carried out with key informants, representing value chain actors and sector experts.

More specifically, there are two categories of primary data:

- (i) Semi-structured in-depth interviews.
 - a. Interviews with value chain operators. The interviewed farmers were all commercial or semi-commercial operators. Whereas processors were of different typology (as shown in the relevant section).
 - b. Interviews with sector experts from both the public and private sectors and with leading operators at each stage in the value chain.

For semi-structured in-depth interviews, there were prepared interview guidelines, which were tested and fine-tuned before implementation.

- (ii) Structured survey with extension surveys. In this questionnaire, the first section collects information about the respondent's profile. The second section has detailed questions related to farm structure, trends of the number of farms by size, and also past trends and expected trends of investments, which is crucial information related to IPARD III program. Another similar section is designed for agri-processing, differentiating by subsector and size when applicable. There was added also a subsection on the impact of COVID on key agriculture sectors. In addition, there are two detailed sections on training/advice needs and investments needs. Other questions which address the needs for IPARD III program and for the strategy were added, also in close consultation with the team of the strategy project.

Semi-structured 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, more in qualitative terms.

On the other hand, the findings from the structured survey with extension surveys enabled us to understand sector trends, enabling to incorporate quantitative assessment.

1.2.2 Secondary data collection

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 (eg. 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 analysed.

1.2.3 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 analysed by using simple content summarizing approach and qualitative content analysis techniques, with the aim to sum up the most relevant and interesting topics emerged from the interviews. Value chain analysis was adopted as general framework for analysis of value chain structure and flows.

1.2.4 Limitations of the available data

There are various gaps in the availability and quality of secondary data. The main gaps lies in structural statistics (farm level statistics by structure, processing capacities etc.) and lack of market information.

More specifically, several constraints were found:

- Lack of proper Market Information System in place. Since 2012, the Market Information System was closed within the Ministry of Agriculture. Thus, Albania no longer has a Market Information System related to the agriculture sector. So, it was not possible to carry out in-depth price analysis.
- Farm data are missing. In Albania, Farm Data Accountancy Network (FADN), it is not implemented yet though some steps have been undertaken as several experts' missions were organized in the framework of IPA 3 project; it should be highlighted that FADN is both a requirement by the European Commission before accession to the European Union and an important tool for analysing policy impacts and farm typology. Whereas the databases of annual farm surveys carried out by MARD jointly with INSTAT are not made available.

When the quality of international trade data was questionable, we used statistics reported by countries exporting olive oil to Albania, namely EU countries (in the case of olive oil is simple, since we import olive oil almost exclusively from EU).

Needs for information were addressed through field interviews, however, COVID19 deeply impaired field operations – it was often difficult to interview operators especially in case of COVID19 contraction and those who showed special caution. Some of the interviews were done online or on telephone, although most were done face to face.

1.2.5 Information retrieved from the Context Analysis

The sector study is supported by a comprehensive analysis of the external context, which provides background information to the sector analysis, specifically related to: inputs and packaging; services to the value chains; information systems, data, research; collective action and contract farming; food safety and quality infrastructure and mechanisms; EU and national policies and strategies; education and human capital development; Geographical Indications, collective marks, brands, consumer behavior; description of the trends in the international and domestic markets; access to finance and insurance; licensing system, legal agribusiness definition, public food procurement, fiscal issues; short analysis of the consumers, domestic and international: behaviour, perceptions and preferences regarding product origin and quality.

2 FARMERS

2.1 GROWERS

Size of holdings

Most agriculture holdings in Albania are mixed and (semi)subsistence farm and most farms cultivate grape, both vineyards and pergola¹. That having said, slightly more than one in ten farmers (35,666 farmers out of 320000 farms in Albania) have vineyards.

The number of commercial vineyard farmers is rather small. Farmers with vineyards larger than 0.50 ha is 2,850 with a corresponding vineyard area of 3,217.00ha, the number of farms having more than 1.00 ha of vineyard is 749 with a corresponding vineyard area of 1,453.00 ha, and the number of larger farms having more than 2.00 ha of vineyard is 154 with corresponding vineyard area of 657.00 ha (Table 2-1).

Table 2-1: Distribution of vineyard farms by size (2019)

	Less than 0.30 ha	Between 0.31- 0.50 ha	Between 0.51- 1.00 ha	Between 1.00. 1-2.00 ha	Over 2.00 ha	Total	Over 0.50 ha	Over 1.00 ha	Over 2.00 ha
Number of farms	26,607	8,277	2,101	595	154	37,734	2,850	749	154
Total vineyard area	4,092	3,675	1,764	796	657	10,842	3,217	1453	657

Authors based on (MARD) data (2020)

The main farmers' needs for advice and capacity building include: selection of varieties according to the conditions of the region (climate, soil), local variety selection, production quality assessment, plant protection and fertilization know-how, quality and safety standards, pre-harvest raw material analysis (estimation of sugar, acidity, pH), harvesting and post-harvest advice and assistance, climate change mitigation; financial literacy and business plan preparation for accessing Instrument of Pre-Accession in Rural Development (IPARD) programme support.

Geographical distribution

The main areas of grape production lie between the hills and the coast of central Albania. The leading region in terms of vineyard area is the Fier region, contributing with about 19.5% of total vineyard area (Table 2-2). Other important producing regions are Elbasan, Vloa and Berat, which together with Fier make up more than half (54.4%) of total vineyard area. Similar pattern is observed in term of pergola trees. However, Shkodra (ranked second) and Lezha report high number of pergola trees.

¹Pergola refers to spare vines cultivated in farms, not part of a compact vineyard.

Table 2-2: Regional Distribution of vineyard areas and pergolas in Albania (2019)

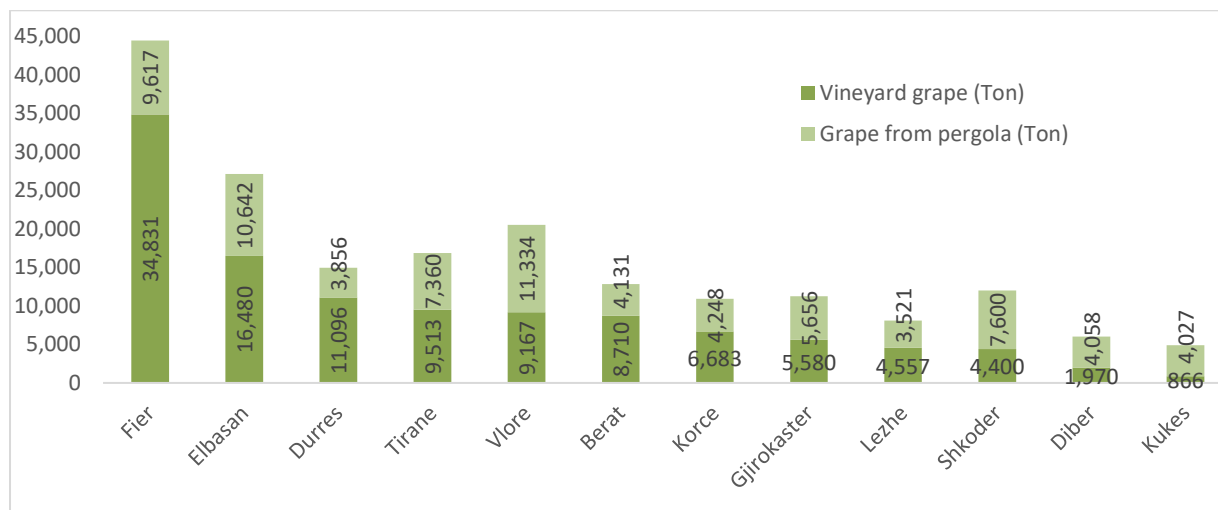
Prefectures	Wine yard		Pergola	
	Vineyards (Ha)	% to total	Pergola (000 trees)	% to total
1. Fier	2,114	19.5	890	13.8
2. Elbasan	1,368	12.6	691	10.7
3. Vlore	1,256	11.6	581	9.0
4. Berat	1,155	10.7	551	8.6
5. Korce	1,117	10.3	329	5.1
6. Tirane	845	7.8	502	7.8
7. Gjirokaster	798	7.4	289	4.5
8. Durres	767	7.1	392	6.1
9. Shkoder	729	6.7	820	12.7
10. Lezhe	406	3.7	576	8.9
11. Diber	200	1.8	446	6.9
12. Kukes	88	0.8	367	5.7
Total	10,842	100.0	6,434	100.0

Source: Authors based on MARD (2020) data

At municipality level, Fier, Vlora, Lushnja, Durrës, Berat and Tirana are municipalities with largest vineyard area (MARD, 2020).

Total grape production from vineyard at country level is 113,854 tons; and grape production from both vineyard and pergola in 2019 was 189,904 tons. Fier qark is by far the region with largest grape production (34.8 thousand ton, or 31% of total production), followed by Elbasan 16.5 thousand tons, or 14% of total production), Durres (11.1 thousand tons or 10% of total production) and Tirana (9.5 thousand tons or 8% of total production). Vlora is however with largest grape production form pergola, followed by Elbasan and Shkoder.

Figure 1: Regional distribution of grape production in Albania (2019)



Source: Authors based on MARD (2020) data.

At municipality level, Lushnja, Fier, Durrës, Vlore, Elbasan, Divjaka, Berat and Tirana are municipalities with largest vineyard area (MARD, 2020).

It becomes clear that out that the four municipalities, namely Fier, Lushnje, Durres and Vlora have both the largest area under vineyard and largest grape production from the vineyard.

Table 2-3 summarizes information on regional distribution of commercial farms.

Table 2-3: Regional distribution of commercial farms

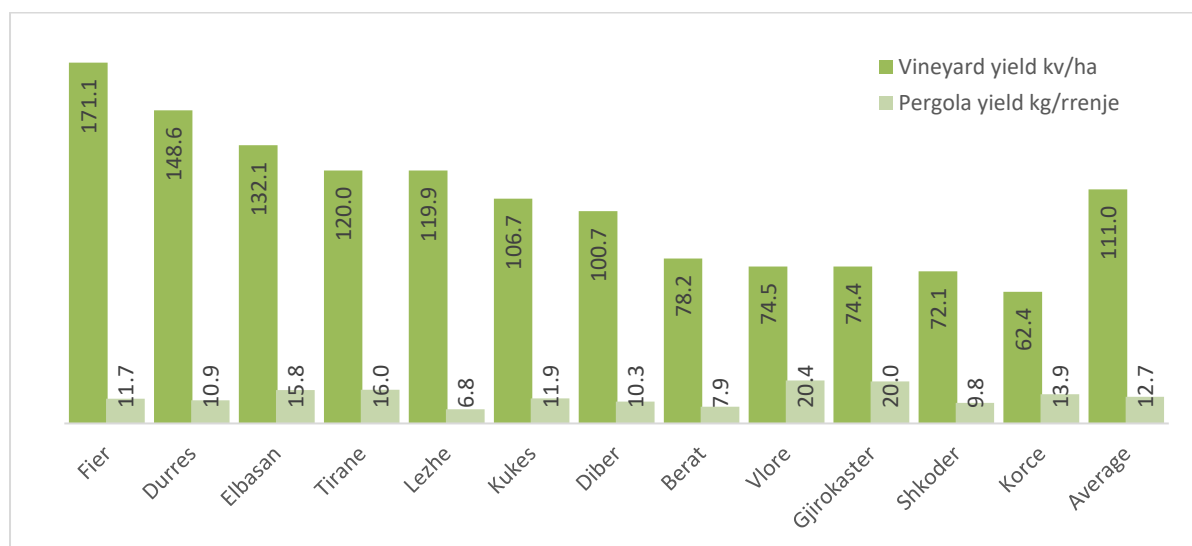
Region	Over 0.51 ha		over 1.1 ha		Over 2.1 ha		Total	
	Number	Area	Number	Area	Number	Area	Number	Area
Fier	255	435	105	230	25	120	8,355	2,123
Berat	218	219	48	100	10	53	3,878	1,147
Lezhë	106	141	39	88	9	42	831	402
Kukës	17	13	3	4	0	0	335	56
Vlorë	715	740	80	120	0	0	1,925	1,256
Gjirokaster	100	166	68	140	17	79	2,110	798
Shkodër	177	254	38	142	17	113	1,733	736
Korçë	372	377	155	225	27	60	3,288	1,108
Durrës	264	255	59	102	9	34	1,380	766
Dibër	152	142	32	52	5	14	1,082	430
Elbasan	95	107	20	49	6	30	7,908	1,349
Tiranë	379	368	102	200	29	112	4,909	812
Totali	2,850	3,216	749	1,452	154	657	37,734	10,983

Source: Authors based on MARD (2020) data

Grape yields

The yield of grape from vineyard averages 111 kv/ha. The yield varies immensely however among regions ranging from 62.4 kv per ha in Korca and 171.1 kv/ha in Fier, Figure 2.

Figure 2: Vineyard yields by regions (2019)



Source: Authors based on MARD (2020) data

It is to be noted that yields for vineyard intended to wine production are higher for largest grape producing municipalities: vineyard yield in Lushnja and Divjaka municipalities (Fier region) go up to 240 kv/ha, in Elbasan 156 kv/ha, in Durres 158 kv/ha Durres; the vineyard yield is also high in Lezha (a well-known wine producing area) with 130 kv/ha. To the contrary, Tirana, Berat and Vlora municipalities have yield lower that 100 kv/ha - with 97 kv/ha for Tirana, 80 kv/ha for Berat and 70 kv/ha for Vlora (MARD yearbook 2019).

2.2 PRODUCTS

Both domestic (autochthonous) and imported wine cultivars are used for producing grape intended to wine. Most used domestic cultivars are Sheshi i Zi, Sheshi i Bardhë, Vlosh, Kallmet, Cerruja, Pulsi, etj. Imported wine cultivars intended to wine production are Merlot, Cabernet Sauvignon, Tokai, Vranac, Riesling, Chardonnay, Petit Verdon, Shiraz, etc.

More than half of vineyard area (4,072.00 ha or 56.3%) in Albania is planted with two domestic cultivars, namely Sheshi i Zi (2,720.00 ha or 37.6%) and Sheshi i Bardhë (1,352.00 ha or 18.7%). Other important domestic cultivars in terms of area planted is Kallmet (1.5% of vineyard area) The most common imported cultivar is Merlot covering 10.2% of vineyard area in Albania, followed by Tokai, Vranac and Sangiovese (Table 2-4).

Table 2-4: Area distribution by cultivars

Cultivar	No of units	Area (Ha)	%
Shesh i Zi	10,609	2719.6	37.6
Shesh i Bardhë	5,293	1352.1	18.7
Other	4,292	932.7	12.9
Merlot	2,539	735.3	10.2
Victoria	818	229.6	3.2
Hibrid	816	185.5	2.6
Tokai	670	154.6	2.1
Vranac	575	140.8	1.9
Sangiovese	343	114.8	1.6
Kallmet	358	111.6	1.5
Riesling	332	101.4	1.4
Muskat	284	87.1	1.2
Italia	315	81.3	1.1
Cabernet Sauvignon	276	81.6	1.1
Debinë e Bardhë	306	71.8	1
Pamid	243	51.8	0.7
Tempranilo	357	45.3	0.6
Vlosh	130	32.9	0.5
Totali	28,556	7,229.8²	100

Source: Fushe-Kruja ATTC. (2021)

Organic production

According to the data from MARD (2020), grape organic certification is only marginal; Reportedly, only 5.00 ha of vineyard with a corresponding production of 7 ton is in the process organic certification³.

Margin analysis

Financial analysis of grape production intended to wine reveal that gross margin for 1.00 ha of vineyard intended to wine amounts to Albanian Lek (ALL) 798,900 (Euro 6,440.00). Income from grape sale is ALL 1.200,000 and intermediate costs are ALL 401,100 (Table 2-5).

² The difference between MARD reported data (10,983 ha) and Fushe-Kruje ATTC reported data (7,229 ha) is due to (i) the ATTC does not report parcels under 0.1 ha and (ii) the ATTC census has been extended during several years; the area has definitely increased in regions where census has been done some years ago

³ Albanian Institute of Statistics (INSTAT)

Table 2-5: Margin analysis for grape production intended to wine

No	Items	Value (ALL)
1.	Income	1,200,000
2.	Grape 1 st quality 15,000 kg*70 ALL/kg	1,050,000
3.	Grape 2 nd quality 3,000 kg*50 ALL/kg	150,000
4.	Intermediate costs	401,100
5.	Agricultural machinery	93,000
6.	Labour cost	159,000
7.	Other costs	57,500
8.	Gross margin (1-4)	798,900
9.	Labour cost	159,000
10.	Fix costs	111,400
11.	Profit (8-9-10)	528,500

Source: adopted by GFA (2019).

Data from alternative sources (Fed Invest 2019) report similar results for grape farmers – the gross margin for grape farmers reported by Fed invest is ALL 753,000.

2.3 ACCESS TO MARKETS, INPUTS AND SERVICES

Access to market

Vineyard farmers experience difficult access to market due to producing grape which is not suitable to quality wine production. While they produce grape intended to wine, they tend to have a strong orientation towards quantity at the detriment of grape quality. This has resulted either in difficult market access (and then the grape is processed into raki) or selling to wineries producing low quality in at low price. The wineries efforts to advice farmers to produce good grape for processing have usually failed. Hence, wineries which have make the choice of producing high quality wine have invested (and have plans to invest) in their own vineyard creating integrated value chains.

Access to inputs

Access to seedlings

Vineyard farmers have access to seedlings from two categories of nurseries, namely family nurseries, semi-organized nurseries. Family nurseries are owned and managed by people having had experience in the profession in Albania and abroad. It is estimated that they supply 12-15% of seedling in the market. They are informal and produce uncertified seedlings. Semiorganized nurseries are formal and under the supervision of State Entity of Seed and Seedlings (SESS) and formal certification scheme. Their produce certified planting material. and industrial nurseries. There is also a third category, of nurseries which use considered in-vivo production greenhouses with foggy green pieces, as well as in-vitro breeding laboratories. This is the case of in vivo laboratory installed at Vlora ATTC.

The latest data inform that there are 70 farmers who produce certified seedlings. They are located in the municipalities of Berat, Pogradec, Shkodra, Tirana, Kruja, Lezha, Lushnja, Fier, Kavaja, Durres, Elbasan, Korca and Vlora. The seedlings produced belong to the plants of fruit trees, such as olive, vine, apple, plum, cherry, orange, tangerine, etc. The total number of seedlings produced and certified in the conditions of our country is 910,450 seedlings. During 2019-2020, more than 300 thousand (330,300 seedlings) certified grape seedlings have been supplied to the market.

While one discusses about certified seedlings, it is important to mention that certification do not follow a complete protocol. Out of 5 stages of certification protocol (Primary source, conservation for pre-multiplication, pre-multiplication (basic block), Motherblock and propagation (nursery), only three last stages are implemented.

Plant protection products

Farmers have easy access to Plant Protection Products (PPP) mainly through input dealers. There are 412 input dealers or retail units of PPP in Albania distributed all over the country, as shown in [Table 2-6](#).

Table 2-6: Plant protection retail units and importing companies by qarks

Qarks	Retail Units of Plant Protection Products	% to total retail units	Import Companies of Protection Products	% to total importing companies
Berat	52	12.6%	2	10.5%
Dibër	12	2.9%	0	0.0%
Durrës	34	8.3%	4	21.1%
Elbasan	54	13.1%	1	5.3%
Fier	97	23.5%	7	36.8%
Gjirokastrë	9	2.2%	0	0.0%
Korçë	25	6.1%	0	0.0%
Kukes	7	1.7%	0	0.0%
Lezhë	24	5.8%	0	0.0%
Shkodër	26	6.3%	1	5.3%
Tiranë	72	17.5%	4	21.1%
Vlorë	9	2.2%	0	0.0%
Total	412	100.0%	19	100.0%

Source: MARD (2020)

Fier, Tirane, Elbasan, and Berat have the highest concentration of retail PPP units. That having said, there is a good coverage for the remaining qarks as well allowing of good access to this kind of input. Importing companies are concentrated more Fier, Tirana, and Durres.

All PPP are registered in Albania through a detailed procedure. All the PPP registered in one EU countries are allowed to register and circulate in Albania.

Despite the fact that all PPP are registered in Albania, farmers complain about the lack/insufficient efficacy of PPP. Some farmers buy PPP in neighbouring countries when they can, mainly Greece because they did not trust PPP being traded in Albania.

Fertilizers

Farmers have easy access to fertilizer products mainly through input dealers. There are 646 input dealers or retail units of fertilizers products in Albania distributed all over the country, as shown in [Table 2-7](#).

Table 2-7: Fertilisers retail units and importing companies by qarks

Qarks	Retail Units of Plant Protection Products	% to total retail units	Import Companies of Protection Products	% to total importing companies
Berat	75	11.6%	4	7.0%
Dibër	16	2.5%	0	0.0%
Durrës	37	5.7%	8	14.0%
Elbasan	89	13.8%	5	8.8%
Fier	149	23.1%	29	50.9%
Gjirokastrë	17	2.6%	0	0.0%
Korçë	31	4.8%	0	0.0%
Kukes	19	2.9%	0	0.0%
Lezhë	36	5.6%	00	0.0%
Shkodër	49	7.6%	2	3.5%
Tiranë	86	13.3%	8	14.0%
Vlorë	42	6.5%	1	1.8%
Total	646	100.0%	57	100.0%

Source: MARD (2020)

Fier, Elbasan, Tirane, and Berat (similar to distribution of PPP) have the highest concentration of retail fertilisers units. That having said, there is a good coverage for the remaining parts as well allowing of good access to this kind of input. Again, similar to PPP products, fertiliser importing companies are concentrated more Fier, Tirana, and Durres.

All fertilisers are registered in Albania through a detailed procedure. All the fertilisers registered in one EU countries are allowed to register and circulate in Albania.

It is well known fact that sometimes farmers use more fertilisers than needed because they do not follow plant nutrition protocols and they do not make soil analyses for determination of the level of nutrient elements (macro and micro elements), based on the requirements of crop production.

Access to services

Access to knowledge and skills

The main categories of service providers at farm level may be summarised as follows (International Labor Organization (ILO), 2020)

- Professional or semi-professional agronomists, and other providers of services for vineyard (MARD extension service agronomists, municipal agronomists, private agronomists and non-professional technicians specialized in pruning).
- Input and Equipment Providers (suppliers of pesticides, seedlings, suppliers of agricultural machinery and of repair services, suppliers of wine processing equipment).
- National highly qualified specialists (vineyard specialists, experts of international quality standards, international certifying bodies, post-harvest specialists, and engineers); the total size of this cluster scores more than 10 individual service providers. Most of these professionals are based in Tirana and work in the whole country. The estimated number of highly qualified professionals is exclusively based on peer review.
- Agro-economist and Business Development Specialists (who deliver services to Small and Medium Sized Enterprises (SME) processors including the preparation of business plans for loan applications, marketing studies as well as chartered accountants, legal and fiscal advisors, land and farming asset surveyors), and Marketing Specialists (advertising agencies, marketing agencies and marketing consultants).

The service providers found in highest numbers at this level of the chain are the agronomists, suppliers of pesticides, seeds and seedlings, suppliers of agricultural machinery and equipment and non-professional suppliers of pruning in each of the targeted districts. These service providers are found in each region of the country. National highly qualified specialists and national agriculture organizations are based in Tirana and provide occasional services at farm level. There are substantial donor projects that provide support in the fruit and vegetable value chain focused mainly at the farm level.

It is important to note however that complete production protocols for plant protection, plant nutrition and production technology are missing. This led to use of PPP and fertilizers more than needed, and less effectively. Additionally, lack of production technology protocols leads to errors in technology resulting in economic losses (lower yields and/or low prices due to low produce quality)

2.4 KEY FEATURES AND CHALLENGES

Key features

The main features at farm level may be summarized as follows:

- Increased demand for grape due to increased demand for wine induced by changes in domestic consumers lifestyles and export prospects.

- Local/autochthon grape cultivars are well adapted to local conditions and appreciated by consumers.
- Cultivation of autochthon grape varieties by wineries producing high quality wine and by farmers in certain areas.
- Farmers' tradition in grape production motivated by high demand for raki production.
- There is traditional knowledge on grape production.
- Emerging category of farmers interested in product safety and quality.
- A few farmers plan to go organic.
- Only a small proportion of farmers are financial literate and very few have know-how on business plan preparation but there is a category of farmers interested in cost calculation and financial literacy.

Challenges

The main challenges at farm level may be summarized as follows.

- Use of uncertified planting material coming from family nurseries.
- Lack of complete seedling production certification protocols –only three out of five stages of certification are covered by Albanian certification system.
- Insufficient use of autochthon grape varieties due to insufficient understanding of commercial value of this inherited patrimony.
- Quite often errors in selecting grape cultivar according to the condition of climate and soil.
- PPP insufficient efficacy make farmers buy PPP in neighboring countries.
- Insufficient know how on wine grape production technology: limited know-how about pruning, grafting, irrigation: strong orientation towards quantity at the detriment of grape quality also because of lack of complete/standard protocol of grape production technology.
- Limited know-how/skills on grape grafting needed to convert to cultivar suitable to wine.
- Insufficient know how in terms of plant protection and plant nutrition also because of lack of complete/standard plant protection and plant nutrition protocols.
- Limited know how on pre-harvest raw material analysis (estimation of sugar, acidity, pH), harvest and post-harvest and production quality assessment.
- Limited know-how on food products quality and safety standards.
- Poor physical assets base, in terms of special vineyard machineries and equipment.
- Difficult access to market due to lack of business relationship with wineries resulting in low grape price since not suitable for wine production.
- Lack of knowledge on sustainable farming (including soil conservation and environment protection) and climate change mitigation.
- Emerging production risk due to climate changes (more frequent hail precipitation).

3 PROCESSING INDUSTRY

3.1 STRUCTURE OF THE INDUSTRY

Wine processing industry in Albania is consisted of 61 wineries⁴ (MARD, 2020), Table 3-1. This represents an increase compared to 64 companies in 2018 and 69 companies in 2017. Reportedly, there are also around 80 small wine producers⁵ most of them informal (Family Wine Producers Association of Albania).

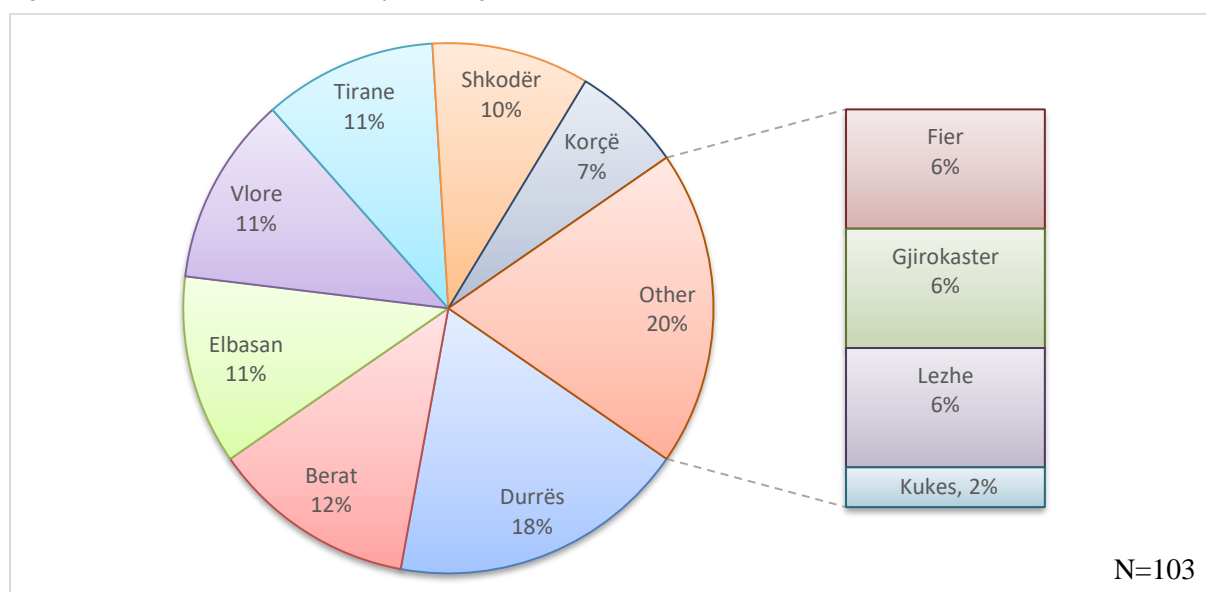
Table 3-1: Number of alcoholic drinks establishments

No	Activity	2017	2018	2019
1	Distilled alcoholic beverages production	33	30	33
2	Wine production from grape	69	64	61
Total number of grape processing companies		102	94	94

Source: for 2017 and 2018 data: MEFA (2020). Albania 12 subcommittee meeting agriculture and fisheries

Wine processing industry is concentrated more in Durres, Berat, Elbasan, Vlora, Tirana, and Shkoder, Figure 3. These six regions make up close to $\frac{3}{4}$ of (73%) of alcoholic/wine processing units.

Figure 3: Distribution of alcoholic/wine processing units



Source: Authors based on MARD (2020)

A close look at distribution of wineries by qarks⁶ and municipalities may suggest a phenomenon of agglomeration of wineries – a significant number of wineries within a small radius. For example, we observe such agglomerations in in Durres (13 wineries concentrated in Durres and Shijak municipalities), Vlora (10 wineries are located in Vlora), and Berat (9 wineries are located Berat and Ura Vajgurore municipalities, some of them producing high quality wine); To be considered are also Elbasan (8 wineries are located in Elbasan and Cerrik), Lezhe (5 wineries located in Lezhe and Kurbin), and Shkoder (7 wineries are located in Shkoder and Vau i Dejës), refer to **Error! Reference source not found.**

Based on product quality, wineries in Albania may be categorised in three main groups as follows:

⁴ Regulatory impact assessment for wine and vineyard law reports between 80 and 100 wineries in Albania.

⁵ Data on viticulture and wine sector in Albania

⁶Qark is an administrative division made up of several municipality. Area covered by a qarks is supposed to be homogenous in terms of economic, cultural and traditional links level. Qarks are supposed to play a coordination role, design, and implement regional development strategies for projects affecting more than one municipality. In practice, they have a very limited impact since poorly funded.

- (i) Wineries producing medium to high quality wine (Category 1)
- (ii) Medium quality wine (Category 2), and
- (iii) Table wine (Category 3)

Capacity (size) and capacity exploitation are discussed below. Since there are no administrative data on winery size and capacity utilization, the research team compensated this shortage (at least partially) through semi-structured interviews. The results of interviews (by winery category) are summarized in Table 3-2.

Table 3-2: Capacity, capacity exploitation and plans for investment

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
	Medium to high quality wine (Category 1)			Medium Quality Wine (Category 2)			Table wine (Category 3)	
Capacity (tons)	400 tons	80 tons	More than 500 tons of fermenting and storing	11 tons	60 tons	18 tons	40 tons	200 tons
Capacity utilization (tons)	150-200 tons	40 tons	130 tons	Very partially	40 tons	13 tons	25 tons; at best 40 tons	100-120 tons
Capacity utilization %	Up to 50%	50%	26%	Very partially	66%	72%	63%	50-60%

Source: Authors based on filed interview

For the interviewed companies, the winery capacity (size) ranges from 10 tons to 500 tons. The size for Category 1 wineries goes up to 500 tons; the size for Category 2 ranges from 10 tons to 60 tons, and the size for Category 3 the wineries have a large dispersion in terms of size starting from very low informal wineries to very large wineries.

Winery capacity utilization varies from very partially to three fourth (Table 3-2). The main reported reasons for capacity underutilization are difficult access to market due to prejudice to the quality of Albanian wine, cost structure, and unfair competition from informal domestic wineries and from imported wines. There is a strong belief held by wineries of Category 1 and 2 that imported wine enter the Albanian market without required inspections; it enters Albanian market sometimes at abnormally low prices and, according to wine operators, it might also be counterfeit.

3.2 MAIN PRODUCTS AND PRODUCT TYPES /CHARACTERISTICS

Based on wine quality, the three categories of wineries may be described as follows:

- *Wineries producing medium to high quality wine:* They have invested in up-to-date technology and make wine aging for 24-36 months and longer, usually in cellars using wood barrels; use mostly (or only) low yield and high sugar content grape; they tend to produce their own grape to ensure quality while when buying from farmers, they monitor the quality and buy at relatively higher prices. Their focus is now on domestic cultivars. They sell to high and upper mid class of consumers using outlets such as high standards restaurants; hotels; wine shops but also exports. Wine is packaged almost exclusively or mainly in bottles and sale price ranged between 6 and 10 Euro per 0.75litre bottle; for reserve editions and top-quality wine, the prices are much higher prices.
In this category of wineries there is some interest in participation in EU quality schemes (PGI and PGI).
- *Wineries producing medium quality wine:* They produce mainly medium quality wine, using both imported (Merlot, Cabernet, Tempranillo, Moskat) and domestic (Sheshi i Bardhe, Sheshi i Zi, Kallmet, etc.) grape cultivars. High quality wine is also experimented using special domestic cultivars (Carmenere case) or imported cultivars. Reserve editions are limited to those who can make aging of only very partial quantities. Some of them experiment with new products such as Rosee produced out of Moscat cultivar. Use average yield,

average sugar content grape (often from their own vineyards) and when buying from farmers trying to control partially the quality. They sell to low -upper mid class of customers using outlets such as medium standards restaurants and supermarkets but also direct sales at winery. Wine is packaged mainly in bottles but for lower quality wine, bag-in-boxes are also used. The price varies between 3.5 Euro per litre sold in carton boxes and 8 Euro per 0.75 litre bottle.; but it can be much higher for limited quantities of higher quality wine. Raki is also a typical by product of technology process (Table 3-3).

In this category of wineries there is some interest for organic production (one winery used to have its vineyard organically certified few years ago and it plans to go organic again in 2021; the other winery has manifested interest in organic production; it has also planted a special grape cultivar which is resistant to plant diseases (Cultivar created in Italy, a crossing with Albanian cultivar Çelek/Vaj Guri).

- *Wineries producing table wine*: They produce rather low-quality wine, using both imported (Merlot, Cabernet, Vranac) and domestic (Sheshi i Bardhe, Sheshi i Zi, Kallmet, etc.) grape cultivars. They have incomplete technology and their product is intended to immediate consumption; use high yield, low sugar content grape, typically with no control for quality, rely on spot market (low price, low quality). This category of wineries sells to low class of customers through popular restaurants, including restaurants which organize wedding parties, and shops. Typically, largest share sold in bulk at a price between 2 and 5 Euro per litre. Raki is also a typical by product of technology process. Some of them also produce grape juice.

In this category of wineries there is not any interest in organic production or participation in quality schemes.

Table 3-3: Products, consumers, prices and quality schemes

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
	Medium to high quality wine (Category 1)			Medium Quality Wine (Category 2)			Table wine (Category 3)	
Products	Medium to high quality wine Kallmet, Kallmet reserve, Sheshi i Bardhe, Arbëri spumante raki.	Medium to high quality wine Pulsi Beratit (White wine), Serina (Red wine). Montemeca (three kind of grapes), Merlot, Kabernet, Lavardar, Rosee, Reserve Superior, etc.	Medium to high quality wine. Standard wine: Kallmet; Cabernet-Sauvignon; chardonnay. Medium wine: Reserve: Kallmet, Cabernet-Sauvignon; Chardonnay. Top quality: Kallmet Barrique; Chardonnay barrique; etc	Mainly medium but also high wine using domestic and special cultivars (Carmenere). No wine aging in wood barrels.	Mainly medium quality wine using mainly imported cultivars. Partial quantity wine aging in wood barrels.	Mainly medium quality but also and high-quality wine including reserve, and Rosee from Moskat. Partial quantity wine aging in wood barrels.	Mainly low-quality wine sold in bulk (60%).	“Argjino” red wine, Vranac, and Debine (white wine).
Packaging	0.75 litre glass bottles.	0.75 litre glass bottles.	0.75 litre glass bottles.	0.75 litre glass bottles.	0.75 litre glass bottles.	0.75 litre glass bottles but also bag-in-box.	In bulk, and only limited quantity in bottles.	Plastic bottles and 0.75 litre glass bottles.
Costumers	Medium to high income consumers.	Medium to high income consumers.	Medium to high income consumers.	Medium income consumers.	Medium income consumers.	Medium income customers.	Low-income consumers.	Low to medium income consumers.
Market	Domestic and export.	Mainly domestic but also export.	Mainly domestic but also export.	Domestic.	Domestic.	Domestic.	Domestic.	Domestic.
Price	Between 8 and 10 Euro per bottle. Export price 12-15 Euro per 0.75 l bottle.	Between 6 and 25 euros. The median price is 8 Euro per 0.75 l bottle.	Between 10 and 35 euros.	Between 3.5 and 8Euro per 0.75 l bottle. For limited editions quite high prices 16 Euro or more.	Between 6 and 8Euro per 0.75 l bottle.	3.5Euro per litres (60% of production); 16 Euro per 0.75 l bottle (40% of production); 2.3Euro per litre for lower quality wine.	1.5 to 2 Euro (in bulk) and to 3.5 Euro per).75 l bottle (Kallmet). Grape juice at 1.5 Euro per litre. Raki at 3.5 euro per Litre.	3.5 euro for 0.75 l “Argjiro” and Vranac; 3 euro fot Debine; 2 Euro for wine in plastic bottles.
Quality schemes and organic	Planned.	Planned.	Planned.	Interested in organic production. Already planted a special cultivar immune to diseases.	Vineyard certified organic up to 2017, now integrated production; plans to go organic again.	Limited interest on quality schemes; no interest in organic production.	No interest.	No interest.

Source: Authors based on filed interviews

There is not any Albanian winery to have applied for quality schemes such as Protected Designation of Origin (PDO) and Protected Geographical Indications (PGI). There is only a foreign (Italian) organisation, namely *Consorzio di Tutela del Primitivo (IT)*, which have already registered in Albania, Table 3-4. Another Albanian Company, ADOL shpk (AL) has applied for registering the brandy Konjak but its application has been rejected.

Table 3-4: Applications and registered geographical indications/designation of origin

No	Application number	Date of application	Product	Applicant's name	Status GI/DO
15	AL/E/2018/ 000002	11.04.2018	Primitivo di Manduria (wine)	Consorzio di tutela del Primitivo (it)	Registered

Source: General Directorate of Industrial Property⁷

Development of quality scheme, such as Geographical Indications (GI) represents a potential. There are autochthon varieties closely related to specific areas (eg. Serina in Korca, Vlosh in Vlora, Pules in Berat, Kallmet in Lezha). Such a relation between a specific cultivar and a specific geographical area represents a potential for developing wine quality scheme, including GI but not limited to. Thus, development of GI would trigger new investments (eg. in new plantations and in improving processing and marketing capacities).

Considering the distribution of wineries by areas (qarks) and the quality groups identified above, we may indicate potential areas for developing wine clusters in Albania:

- Durres qark represents the area with highest concentration of wineries within a reasonable radius: there are 16 wineries⁸ in the two municipalities (Durres and Shijak) located in low area with very developed rural infrastructure. Department of Viticulture and Oenology (Agricultural University of Tirana) is half an hour drive to qark centre. Other research institutions, such as Soil Test Laboratory, Plant Protection Institute (AUT), Faculty of Natural Sciences (Tirana University), etc. are also close to Durres qark and may be involved in vineyard and wine research and development. Durres is producing mainly table and medium quality wine meaning that there is potential for improving wine quality. Durres is a touristic area. Hence the demand for wine and wine/agritourism represents an opportunity. While the highest concentration of wineries is observed in Durres, the area lags behind in terms of vineyard area – Durres ranks only the seventh (of of 12 qarks) in terms of vineyard area.
- Vlora qark also has high concentration of wineries – there are 11 wineries, 10 in Vlora municipality and 1 in Selenice. Agricultural Technology Transfer Center specialized in fruit production, including vineyard and wine processing, is located in Vlora. The area is producing mainly table and medium quality wine meaning that there is potential for improving wine quality. Vlora is a touristic area. Hence the demand for wine and wine/agritourism also represents an opportunity. The viticulture is also quite developed in Vlora; the qarks rank 2nd in terms of vineyard area at country level.
- Berat qark too has high concentration of wineries, with 11 wineries based in three municipalities, namely Berat, Kuçova, and Ura Vajgurore which used to be part of the same district (close to each other). Wineries are located in low area with quite developed road infrastructure. In Berat area, medium to high quality wine is being produced. The viticulture is also quite developed in Berat; the qark rank 3rd in terms of vineyard area at country level.
- Tirana qark has also concentration of wineries: there are 11 wineries based in 4 adjacent municipalities, namely Tirana, Vora, Kavaja and Kamza. Tirana represents the area where most research institutes are based. Additionally, Tirana represents the largest market for wine and wine tourism. Tirana ranks the 6th at country level in terms of vineyard area.
- Elbasan qark has some concentration of wineries; there are 9 wineries located in three adjacent municipalities, namely Peqin, Cërrik and Elbasan. Elbasan (and mentioned municipalities) is very close to Tirana and enjoy all advantages of Durres qark in terms of access to research institutions. In Elbasan area, both medium plus

⁷ General Directorate of Industrial Property (GDIP). (2020) Annual Report 2019.

⁸18 wineries if Kavaja municipality is also considered. Kavaja is few kilometers from Durres.

and table wine is being produced. Additionally, Elbasan ranks the first at country level in terms of vineyard area.

3.3 ACCESS TO MARKETS, INPUTS AND SERVICES

Access to market

Formal wine producers are experiencing difficulties in terms of market access for several reasons, including (i) unfair competition from informal wineries; (ii) unfair competition from imported wines; and (iii) drop in demand because of Covid-19 pandemics. Interviews wine processors report a drastic decline in sales for the three reasons above – the two first having affected market access for several years now and the third one having aggravated market access for formal wine processors.

There is however a verified trend of increased demand for wine (as consumers shift to more healthy lifestyles – and therefore shifting from raki to wine consumption), and an emerging trend of increased demand for high quality wine. Interviews with wine processors inform that foreign experts prefer good domestic wine and even domestic consumers have turn to good quality wine. According to a wine processor “...*domestic consumers are accustomed to high prices of imported wine and now they realise that there are good quality domestic wines similar (or better quality) that they may consume at high prices*”.

Access to inputs

Access to raw material (grape) and know how

Most wineries have their own vineyard but they also buy from other farmers. However, grape sourcing from farmers has an inverse relationship with wine quality – wineries producing high quality buy less from the farmers and vice versa; while wineries producing high quality, wine buy between 20%-40% of processed grape, the one producing low quality wine buy 60%-70% of the grape ([Table 3-5](#)).

The trend of wineries producing high quality wine to invest in their own vineyard is because of the difficult relationship with farmer. Quite often, farmers have grape cultivars not suitable for wine production as they are more inclined to quantity rather than quality. The grape yield varies from 5-10 tons per ha (usually in winery owned vineyard) to as high as 20 tons per ha and more (usually in winery owned by individual farmers). Additionally, farmers – usually – do not honour the contract or oral agreement. According to a wine processor, “Farmers with have a business history sell to other buyers even in case there is a small delay in grape purchase”.

The price of grape ranges from as low as ALL 50 per kg (Euro 0.4), sometimes even less, to ALL 90 (Euro 0.7 per kg) for most demanded cultivars. The price of Kallmet cultivar (domestic cultivar) has increased by ALL 30 during recent years due to high demand for it. There are several wineries using Kallmet cultivar (Arberi winery, Kallmeti winery, Zadrima winery, etc.)

Table 3-5: Inputs: grape as raw material

Indicators	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
	Medium to high quality wine (Category 1)			Medium Quality Wine (Category 2)			Table wine (Category 3)	
Own vineyard (Ha)	25.5 ha own vineyard; hired 10 ha. Cultivars: 60-70% Kallmet; the rest Sheshi i Bardhe; Sheshi i Zi.	7 ha in production plus 1.2 planted. Planned to plant 8 ha more. Total vineyard area after planting = 16.2 ha.	Own vineyard 20 ha.	Own vineyard 1 ha. Cultivars: Cremenere, Sheshi i bardhe, Cabernet, Merlot.	Own vineyard 5.5 ha. Cultivars: Tempranilo, Merlot, Sheshi i Bardhe, Cabernet.	Own vineyard 1.5 ha. Cultivars: Sheshi i Bardhe, Sheshi i Zi, Shiraz.	2.5 ha. Cultivars: Kallmet (30%), Shesh i Bardhe, Merlot dhe Tempranilo.	5 ha. Cultivars: Vranac 2.5 ha, Debine (white) 1 ha, Merlot 0.5 ha, Sangiovese 0.5 ha, Moscat 0,5 ha.
Grape supply from farmers	Buy from 65-70 vineyard farmers.	Buy grape from 5-6 farmers.	none	Buy from other farmers around 30% of grape processed.	Last year purchased from one farmer 10 tons of grape: this year from 4 farmers 18 tons of grape.	Buy from 10 to 15 farmers with an area of 4 ha (Merlot, Cabernet-Sauvignon, Moskat). Do not advice farmers.	Normally they buy from 4-5 farmers: around 30 tons. Cultivars: Kallmet, Shesh i Bardhe, Merlot.	Buy 50-80 tons from several farmers.
Grape processed (produced and purchased)	160-200 tons per year.	60 ton per year.	120 tons; only own grape.	Depending on sales. Last year very limited quantities because of sale problems.	In normal years, 68 tons (50 tons produced).	30 tons (50% own production).	In normal years, 45 tons (15 tons own grape).	150-200 tons.
% grape produced vs purchased	More than half from own vineyard.	70%/30%	100%/0%	70%/30%	73%/27%	50%/50%	30%/70%	55-60%/40-45%
Grape yield	6.5 – 7 tons per ha.	6.5 -8 ton for merlot and cabernet and 100-14 ton per ha for puls.	6 tons per ha	5 tons per ha per own vineyard and 6-7 tons per ha for grape from farmers.	9-10 tons/ha from own vineyard and 13-18 tons per ha for grape from farmers.	12 to 16 tons per ha for own vineyard and 20 tons per ha for grape from farmers.	6 tons per ha.	14-16 tons per ha from own vineyard; 12 tons for supplying farmers.
Grape price	70-80 ALL per kg for Kallmet, less for the rest.	60-80 ALL per kg.	No supply from farmers.	Merlot ALL 55-65 per kg, Cabernet price used to be 90 lek per kg.	ALL 60 to 70 per kg.	ALL 60 to 70 per kg.	Between 50 and 90 lek per kg (Kallmet). Kallmet price has increased.	50-60 ALL per kg.

Source: Authors based on filed interviews

Usually, formalized wineries have either inhouse staff specialised in wine processing technology, people with experience in wine processing technology or well-established connections with wine processing technology specialists.

In-house know how and the type of expertise varies significantly by type of wine being produced. As a general case, wineries producing high medium to high quality hire more specialized expertise. This Category of wineries have in house oenologists, but also other experts such as agronomists, chemists, etc. A recent phenomenon is the emergence of young generation of oenologists taking over the technical and economic management of wineries (Arberi, Nurellari, and Uka winery). In some cases, young oenologists maintain professional relationships with their professor-oenologists abroad. Wineries producing medium quality wine have built in house expertise based on former assistance from oenologist and practicing. Wineries producing standard table wine rely more on domestic expertise, particularly expertise from input supplier’s advice (Table 3-6).

Table 3-6: Access to know how in wine processing technology

Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Medium to high quality wine (Cat 1)			Medium Quality Wine (Category 2)			Table wine (Cat 3)	
Oenologist, technician, winery worker. Close relationships with an Italian professor. Two Agronomists, one Italian and one Albanian	Oenologist, and agronomist	Oenologist, technical and economics staff	In house know-how on vineyard cultivation The manager is a former emigrant in Italy where he used to work both in vineyard and winery.	The chemical engineer - 10 years of experience. The supervisor has professional education. Hired agronomist	The manager has long experience in wine production and his father (agronomist) has knowledge on vineyard cultivation	Up to 2006 used to have the advice of an Italian oenologist. Now they may ask for advice and consultancy in case of any problem	Beverage engineers, technician, oenologist (part time) Exchanges with other wineries

Source: Authors based on field interviews

Import of must (grape juice intended to wine production) as raw material for wine production is quite limited. Reaching the pick in 2006 (94.2 tons) and 2008 (62.8 tons), it decreased continuously afterward. The imported quantity of grape must for 2018 was 19.7 tons. There are also limited quantities of grape juice imports. While this product is intended to be used as an alcoholic drink, some wine producer may sometime use it as raw material for wine production. Having said that, both categories of products are imported in limited quantities. This is related to increased domestic grape production.

Access to other inputs

There are approximately 8-10 equipment providers and many more who provide bottles and packaging materials.

“Enoalba, Rikupero-Al” LLC offers a wide range of items such as machineries and equipment and other wine processing inputs of Italian, Spanish, French origin for the agri-food sector – while it serves several subsectors (dairy, vegetable oils, fruits and vegetable processing etc). EnoAlba is most well-known for its leading role of input/equipment suppliers for the wine sector.

Access to services

Access to know-how and technical assistance

The main training and technical assistance needs for wine processors are providing wine tests/analyses, training and consulting on post-harvest practices, training and coaching on wine production technology (processing, aging, storing, etc.), implementation and certification of international quality standards (ISO, HACCP, etc.), training and

coaching of marketing and sales, conducting marketing surveys and developing marketing plans, marketing information services - fair participation promotion and others, developing corporate identity (promotional materials), implementing certification, financial analysis/management, preparation of business plans/support for loan applications and others.

On the other, for most start-ups and informal wineries, advice on wine processing technology is provided by input providers together with inputs or with lab analyses ILO (2020).

There are less than 10 operators/oenologists providing wine analyses where most specialised are “S.E.A.” LLC and “Enoalba”. “Enoalba, Rikupero-Al” LLC “Enoalba” provides eight type of analyses and free of charge advice to a wide range of clients namely total acidity, volatile acidity, pH, actual alcoholic strength, fermentable sugars, total sulphur dioxide and free sulphur dioxide as well as fileting indicators.

“S.E.A.” LLC has a high-level laboratory carrying genetic analysis of wine as well as other analyses required for exploring the main components of pre-harvest, harvesting, *coupage* as well as additive and filling phases. The entity provides also technical protocols to be followed based on the results of the analyses. According to wine operators interviewed the entity provides advisory services based on payment based on contracts determined in per litre of output or per service offered. The schedule of the analyses is planned throughout the year.

According to interviews with service providers, there are approximately 8-10 equipment providers and many more bottle and packaging providers. The equipment providers also provide information about technology processes. Other service providers such as local development agencies, business development specialists, and marketing specialists provide a limited range of financial, quality standards and marketing services to processors, collectors, and wholesalers.

Seven vocational public schools in Albania, offer food processing know-how; they deliver also modules on wine processing technology. There is only one higher education institution (Qiriazhi College) delivering post secondary education in food processing technology. Agricultural university of Tirana, Department of Agrifood Technology bachelor and master degree programmes in Oenology and Vineyard technology. Short term training courses are offered by public and private (licensed) training centres and are becoming more preferred because they are practical tailor made and short. The sommeliers association of has delivered training courses on oenology and sommelier.

Access to certification

The wine sector finds a wide range of voluntary certification schemes available to improve performances and access to market.

ISO offer the scheme 9001:2015 and the 22000:2017 to support the wineries that need to improve their organisation, operations, management, customer focus, capacity to improve. Whilst ISO 9001:2015 provides a general framework for the organisation quality management system, ISO 22000:2017 focuses on food safety management, incorporates HACCP principles, and as such allows certification of food safety practices in countries where HACCP is mandatory too. These certifications are granted for three years, subject to yearly inspections to verify that the quality system works according to the scheme requirements.

The wineries that need more specific schemes to facilitate access to selected markets, may find the International Featured Standard (IFS) Food, a GFSI-recognised standard for certifying the safety and quality of wine and production processes (currently in its version IFS Food 7), and the British Retail Consortium Global Standard for Food Safety, another GFSI-recognised standard for certifying the safety and quality of wine and production processes. Both standards are HACCP-based and incorporated high focus on Pre-Requisite Programmes (PRP). BRC is the food safety standard for those willing to export to UK, whilst IFS is primarily used in other European countries. Launched in Germany and France, IFS is now the international benchmark in such countries as Poland,

Belgium, the Netherlands, Italy. International certification of all these standards is available, requiring prior assistance to prepare the winery to certification and internal capacity to manage the certification process and further procedures for updating and renovation. The certification cost may vary from 4,000 euros and more, plus costs for technical assistance and internal costs for management.

Since HACCP is mandatory in Albania all formal wineries are expected to adopt HACCP (this the case for the interviewed wineries). That having said, since certification is not legally required not all of them are HACCP certified. On the other hand, not all of them (including wineries producing medium to high quality wine) attach due importance to voluntary standards (ISO 22000:2018, BRC, IFS, etc.).

According to information from the General Accreditation Directorate (GDA), in Albania, three certification bodies are accredited for food safety certification, namely Aqscert, EQSC and AXE Register. EQSC European Quality & Safety Control has ISO22000:2018 accreditation. Other certification bodies as well are active in Albania. Certvalue, an Indian-based certification body is offering BRC certification services, TUV Austria, as a leading certification body, can offer certification services on all major food safety standards. RINA as well has office in Albania and can bring their international experience in food safety certification.

3.4 KEY FEATURES AND CHALLENGES

Key features

The main features at the processing level may be summarised as follows:

- Wine processing industry is concentrated mainly in several qarks/regions, namely Durres, Berat, Elbasan, Vlora, Tirana, and Shkoder - these six regions make up close to $\frac{3}{4}$ of wineries. Winery concentration combined with category of wine produced (in terms of quality) give indication of potential wine clusters in Berat (nowadays being the region leader in quality wines), Durres, Vlora, Tirana and Elbasan that, despite at an informal and initial level, may orientate the relevant policies.
- There is a consolidated trend of winery upstream integration (winery investment in vineyards); the trend is more common for wineries producing high quality wine.
- There is also an emerging downstream vertical integration – some wineries are investing in retail and short chains.
- In Albania, both medium to high quality and table wine (lower quality) is produced. There is good market prospects for wineries producing high quality wine.
- There is good in-house technological expertise in wineries producing high quality wine: enologist plus in-house skills related mainly to returned emigrants know how in wine production.
- An already consolidated positive trend is also the intergenerational transfer of technology management and economic from older to younger people – a generation of young professionals (oenologist) is emerging (Arberi, Nurellari, Duka, Apleta, etc.).
- Clear focus of wineries producing high quality wine in domestic varieties.
- All formal wineries have adopted HACCP, which is nowadays mandatory in Albania. On the other hand, not all of them (including wineries producing medium to high quality wine) attach importance to voluntary standards (ISO 22000:2018, BRC, IFS, etc.)

Challenges

The main challenges at the processing level may be summarized as follows:

- Poor capacity exploitation due difficult access to market. Important reported reasons for difficult access to market are prejudice to the quality of Albanian wine, cost structure, unfair competition from informal domestic wineries and from imported wines.
- Difficulty to source high quality grape from farmers (improper cultivars and low quality/low sugar content grape).
- Shortage of either wine production capacity or grape production capacity.
- Difficult access to market for formal wine sector due to unfair competition from both domestic informal sector and imported wines.
- Poor technological expertise in informal and small wineries.
- Despite some interest shown by wineries producing medium to high quality wine, there is no winery participating in EU quality schemes (PDO, PGI)
- Poor marketing - unfavorable price/quality ratio of quality wines.
- Financial incapacity to invest, mainly in small wineries.

4 GOVERNMENT POLICY FOR THE SECTOR

4.1 STRATEGIC DOCUMENTS

Vineyard and wine sector are considered as priority sectors by the Government of Albania (GoA) in the Inter Sectoral Agricultural and Rural Development Strategy (ISARD), 2014-2020. The main support is provided through three resources:

- the National Support Schemes,
- Recently through IPARD II program with a total of 94 million of euros for investments in agriculture have and are showing a considerable attention on wine sector.
- Other donor support mainly capacity building on improvement of legal and institutional base

IPARD II programe is supporting wine sector through Measure 3: “Investments in the processing and marketing of agricultural products” . Measure 3 provides grants with a minimum of 25 000 Euro and a maximum of 2 000 000 Euro. The percentage of public funding is 50% of the total eligible expenditures of the investment.

National budgetary support for vineyard sector (with relevance to EU Common Agricultural Policy (CAP) Pillar II structural and rural development) has been present over the years, except for the current year. Recent years, throughout National Supporting Schemes in Agriculture and Agro-processing, the GoA has supported the wine sector, mainly for new plantations, irrigation systems with emphasis on Albanian autochthonous varieties.

For example, in 2018 the vineyard producers could benefit from several measures: (i) 300.000 of ALL/hectare for vineyards cultivated with table grapes; (ii) 350,000 ALL/hectare for vineyards cultivated with autochthonous cultivars; (ii) 200,000 ALL/hectare for drop irrigation in vineyards with industrial or table grapes; (iv) Warehouses, collection points, refrigerated points, agro-processing receives in total 20 Million ALL.

Although the overall funding is oscillating, the funding for planting of vineyards has decreased during the years. The peak was reached during 2007-2011 were in addition to plantation of vineyard, there was a separate measure on native cultivation of vineyards. An increasing trend appears also for the drop irrigation, but that figure is not broken down by subsector. During 2019 there was an exemption of vineyard sector in the national schemes, due to the inclusion of the wine sector in the IPARD II program, to avoid overlap (although it is still possible to finance the sector through national schemes for investments whose value is below the IPARD II lower limit).

4.2 RELEVANT FISCAL AND TRADE POLICIES

Wine producers are subject to all horizontal fiscal legislation. Additionally, wine producers are subject to Law on Excise Tax. They have to pay 30 ALL per litre sold wine for wines of Alcohol strength of up to 12.5 degrees and 400 All per litre for wines with Alcohol strength above 12.5 for quantities less than 10,000 HL; and per year and 100 ALL per litre and 120 ALL per litre respectively for quantities above 10,000 Hectoliters (HL), Table 4-1.

Table 4-1: Excise tax for wine

	Alcohol strength up to 12.5%	Alcohol strength above 12.5%
Up to 10,000 HL	30	40
Above 10,000 HL	100	120

Source: Law No /2012, For Excises in the republic of Albania

According to the Law for Excises, exporters of wine are exempted from Excise tax.

Two fiscal horizontal policies, namely Value Added Tax (VAT) exemption of agricultural inputs and VAT exemption of imported machineries and equipment for investment purposes, benefit vineyard and wine sector. Vineyard farmers benefit from VAT exemption of agricultural inputs. Based on Law “On Value added Tax in the Republic of Albania and implementation dispositions, starting from January 2019, agricultural input (such as fertilisers, plant

protection products, seeds and seedlings) provision is exempted from VAT. This was intended to reduce the price and therefore the cost of agricultural production including grape production. Filed interview support that such a measure has transited in input price decrease. Additionally, starting from 2013, all machineries and equipment used from invested purposes are exempted from VAT. This has been very important for reducing investment costs and motivating investment.

Domestic wine production enjoys quite some protection from international competition. Custom duty tariff for all categories of wine (code 2204) is 15% for all trading partners except for Central European Free Trade Agreement (CEFTA) countries which enjoy duty free access (General Directorate of Customs: <http://www.dogana.gov.al/preferencat/>).

On the negative side, the widespread informality in the wine sector badly hurts the formal sector. Given that informal wineries do not pay any taxes at all leads to unfair competition – they may compete format companies with lower prices.

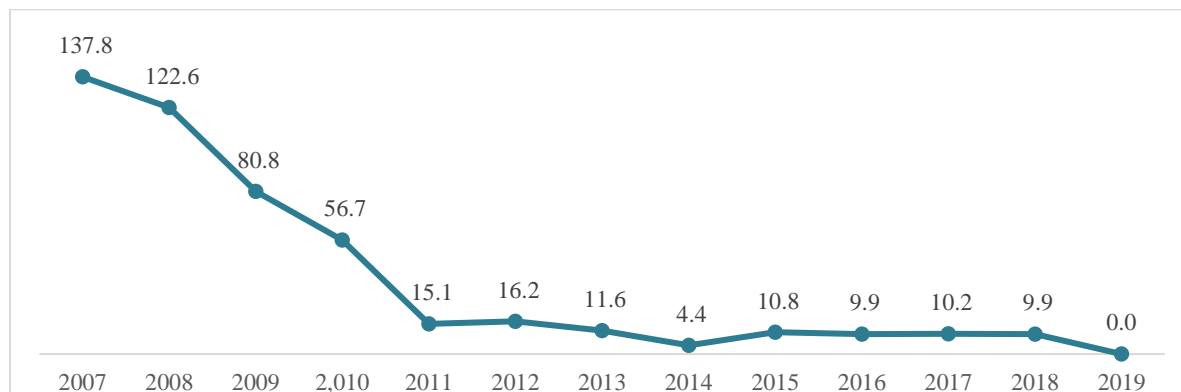
4.3 MARD SUPPORT PROGRAMMES

National Support schemes

Government has supported vineyard plantation starting from 2007. The total support provided for this measure amounts or ALL 486 Million (Euro 3.95 Mil; exchange rate 1 Euro=123 ALL). Supported with 3.6% of total National support scheme for the period 2007-2013, vineyard is one of the 10 top agricultural activities supported; the most supported sectors being livestock (cattle and ruminants) – through per animal head support (17.4% of total budget), olive plantation (16.5% of total budget), orchard plantation (7% of total budget).

The government support for the sector has been quite significant for the period 2007 through 2010 ranging from 57.5 ALL million to ALL 137.8 million. With an inflexion point in 2011, the support stagnated between 2011 through 2018 and stopped in 2019. The trend of government support for vineyard planted is depicted Figure 4.

Figure 4: Government support for vineyard plantation between 2007 and 2019



Source: Authors based on Albanian Rural Development Agency (ARDA) provided data

Table 4-2 summarises regional distribution of government support for vineyard plantation. The qarks most supported both in terms of projects and budget are Shkoder, Elbasan, Vlore, Gjirokastër, Lezha, Fier and Durrës. The regional distribution of government support does not follow the regional distribution of vineyard area (refer to Table 2-2) which may be considered as an indication for other than economic rationale of government support.

Table 4-2: Regional distribution of support for vineyard plantations (2007-2013)

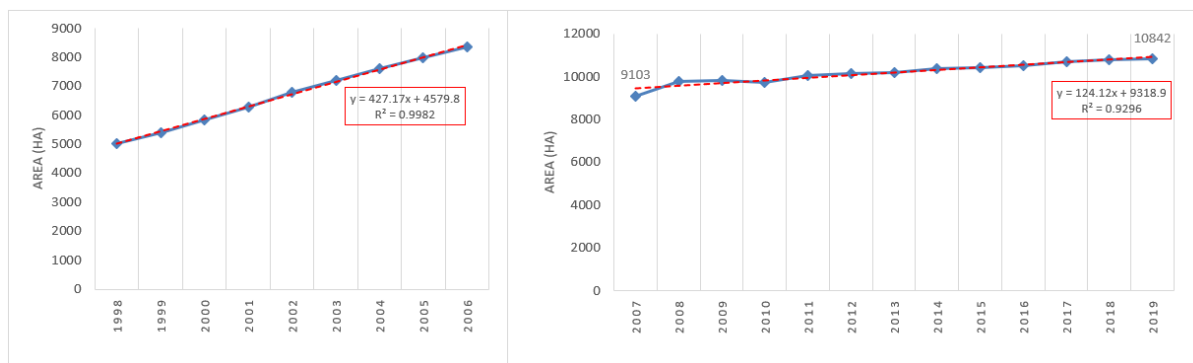
Region	Funded projects	Area (ha)	Million ALL	Mln Euro
Shkoder	259	119	52.9	0.43
Elbasan	205	124	55.8	0.45
Vlore	203	154	66.2	0.54
Gjirokaster	195	145	67.2	0.55
Lezhe	178	103	50.4	0.41
Fier	175	185	38.4	0.31
Durres	171	220	30.8	0.25
Diber	154	69	31.1	0.25
Korce	124	61	26.7	0.22
Berat	98	58	23.6	0.19
Tirane	97	37	16.7	0.14
Kukes	87	55	26.3	0.21
Total 2007-2019	1,946	1,330	486	3.95

Source: Authors based on ARDA provided data

Impact of national support scheme

The support to vineyard plantation does not seem to have generated any clear impact regarding expansion of vineyard area. The rate of yearly area increase before the support (1998 through 2006) was 3.5 times higher compared to rate of increase with the support (2007 through 2019) – The area yearly increase for the period before support (1998 through 2006) was 427.00 ha versus 124.00 ha for the period of support (2007 through 2019), Figure 5. It suggests that financial support might be insufficient if not combined with other measures, including making land market operational – both sale and rental market.

Figure 5: The impact of support to vineyard plantation



Source: Authors based on INSTAT data

IPARD programme

The total IPARD support for grape and wine amounts to Euro 5.522 Million. Out of it, Euro 1.6 million or 28.9% is support to investment in primary production (Measure 1) and Euro 3.93 Million or 61.1% is support to wine producing industry (measure 3). There is no any investment for diversification (measure 7), Table 4-3.

Table 4-3: IPARD supported investment in Grape and wine sector

Grapes/wine	Measure 1	Measure 3	Both measures
Grapes	1,595,452.60		1,178,426
Winery		3,926,577.62	3,837,303
Total	1,595,452.60	3,926,577.62	5,522,030.22

Source: Authors based on data provide by ARDA

4.4 OTHER AGRICULTURE DIRECT AND INDIRECT SUPPORT MEASURES AND FACILITIES

In addition to National Scheme and IPRAD which have supported investment in vineyard plantations and wineries, historically the wine sector has also been supported by other facilities and projects, such as Mountainous Agency for Development in Albania (MADA), LIVIA wine project, and other projects indirectly.

MADA has been provided important support to the wine sector in its coverage area for the period before 2012. The agency had opted for a holistic approach. MADA Strategic Investment Programmes (SIP) for the wine sector were proceeding the intervention in the sector. MADA supported the actors in the sector both with investment and by capacity building activities.

Wine project implemented by LIVIA (<https://lvia.it/>) is a project implemented in the North of Albania. The project aimed at transferring know how on wine processing technology (improving wine quality), improving product marketing and improving business skills. It is tome highlighted that wine makers in the area of Zadrime (Shkoder Lezhe) have received financial support but particularly know how.

Catholic church and other catholic organizations have also supported wine producers in Northern Albania by providing financial but mostly know-how.

SARED programme 2013-2018 (a programmes funded by DANIDA and implemented by GIZ) focus was on Medicinal and Aromatic Plants (MAP), small ruminants and fruits, and not on vineyard. That having said, the programs supported a large number of farmers to buy tractors. It is very likely that some of the SARD beneficiaries have also vineyard and vineyard sector may have benefited indirectly. An investigation to find out the impact of SARED programme on vineyard sector is beyond the boundaries of the study.

4.5 QUALITY POLICY FOR THE WINE SECTOR

Currently wine sector is regulated by the Law No 8443, date 21.1.1999 “On Vineyard, Wine, and other products produced from grape”. The secondary/implementation legislation has never been enacted. The Law No 8443 is now considered outdated with respect to changes that have occurred in Albanian wine sector and the needs of private actors in the sector. Additionally, the current legislation is not in line with European Commission (EC) regulations⁹. Albania is not a regular member of the International Organisation of Vine and Wine (OIV) which offers member states with a regulatory frame, definitions of viti-vinicultural products as well as their labelling, oenological practices and specifications of oenological products, methods of analysis and quality assurance in oenological laboratories. This corpus of rules facilitates international recognition of viti-vinicultural practices and products.

Based on that state of affairs, MARD has drafted a new draft law on Vineyard and Wine. The draft law has already approved by government by end of December 2020, and it is awaiting discussion and adoption at Albanian Parliament level. Four implementation regulations, namely Minister Order “On the approval of application form for registration in the register of vineyards, form of data changes and additional rules for functioning of vineyard register”; Minister Order “On the approval of rules on mandatory declarations, forms to be filled and submitted by operators and the way of information collection on potential production ”; Minister Order “On the approval of detailed rules of entry and exit registers”; and Minister Order “On the approval of rules oenological practices, protocols and methods of testing of wine grape based on international standards (OIV) of wine production, particularly regarding enrichment, acidification and de-acidification and limitations to be applied” are foreseen to be adopted between 2021 and 2023 after the draft law “On vineyard and Wine” is adopted by the Albanian Parliament.¹⁰

Box 1: The draft Law on Vineyard and Wine

The draft Law on Vineyard and Wine aims at (i) establishing rules for cultivation of vineyards intended to wine production, vineyard register, production potentials, production, labelling, marketing and controls of wine products in Albania; (ii) consumer protection; and (iii) prompting wine quality.

The Law stipulates the obligation to establish the vineyard register which is consisted of vineyard cadastre and updated data on grape and wine potential. All the main actors in the sector (vineyard farmers, harvesters, producers, processors and bottlers) should be registered in the register and provide data for keeping it up to date. A list of grape cultivars which are suitable for wine production should be prepared. The vineyards with cultivars not authorised with be uprooted.

The law provides rules and procedures for the approval of PDO, PGI and Traditional Terms (TT) for wine products. The application for getting approval for these quality schemes is submitted to General Directorate of Intellectual Property (GDIP). The latter sent it to MARD for verification of technical specifications. Wine Commission (to be established in MARD), after examination and (if found in conformity with technical specifications) sent the application through MARD back to GDIP for registration.

The Law establishes rules on oenological practices and granting the authorization to place on the market only wine products produced in conformity with these rules.

Rules are also determined in terms of documentation wine product movement both in terms of traceability (food safety) and financial control. National Food Authority is responsible for controlling food safety as in any other food product.

Four implementation regulations¹¹ are planned to be enacted during the period 2021 through 2023. They expected to regulate vineyard register, mandatory declarations and collection of information for monitoring wine market, accompanying documents for wine loading and registers to be administered for the wine sector, international standards on wine grape tasting, enological practices, international standards of wine production and related limitations.

Source: MARD, 2020. The draft Law on Vineyard and Wine

⁹ Regular Impact Assessment (RIA) for the draft law on Vineyard and Wine

¹⁰National Plan for European Integration 2021-2023.

¹¹National Plan for European Integration 2021-2023.

Wine cadastre

A wine cadastre has been established in Fushe Kruja Technology Transfer Center in 2008 with the technical assistance of CARDS 2006 Programme through the implementation of the project "Europe Aid/124908/C/SER/AL – Establishment of Cadastre for the Viticulture – Albania".

The wine and vineyard cadastre (database) is maintained by Fushe-Kruja ATTC. MARD allocate funds yearly and ATTC produces yearly data on vineyard area by cultivars and geographical area. Recently, Fushe-Kruja ATTC has completed the vineyard census/registration which started in 2009 and was completed only last year. Technically, ATTC data are produced based on orthophoto identification and data collection in the field. Orthophotos are produced only for 2007, 2015 and 2018 and only for several areas. Production of orthophotos is funded by government budget and is managed by the Council of Ministers. Orthophotos are produced by the State Agency of Geo-Space Information (SAGSI). Fushe-Kruja ATTC is cooperating with SAGSI for the establishment and management of information system in agriculture.

While the census completed during last year represents an adequate picture of vineyard data, this is not the case for census completed in earlier years as the situation on the ground is expected to have changed significantly. Further by wine operators is proposed a study on cultivar regionalization and features that should have a wine made of a specific cultivar. It is suggested that the study is led by University with the participation and the support of MARD and wine producers' association.

Data collected by census represent a good base for vineyard register but no (or very limited) data are collected from other businesses involved in the wine value chain, such as "producers, processors and bottlers who should be registered in the register and provide data for keeping up to date" as required by the recent draft law.

Given the fast changes of the vineyard/wine sector the last years, the update and proper maintenance of vineyard/wine cadastre data base including producing orthophotos and collecting data both on vineyard and wine is critical for the sector development.

5 MARKET AND TRADE

5.1 INTERNATIONAL TRADE FLOWS AND EVOLUTION OVER TIME

Albania has a clear trade deficit in wine. Imports have been growing over time from 2,549 tons in 2010 to 4,934 tons in 2019. A stagnation in imports is observed however during latest three reports years (Table 5-1). Exports are very modest and fluctuation between 5 and 28 tons. This combination of growing import and modest exports has resulted in a growing trade deficit; the trade deficit has increased from 4.4 million Euro in 2010 to 11.0 million Euro in 2019. Trade deficit is also stagnating during latest three years following the pattern of imports in quantity. Exports covers only between 0.4% to 1.4% of imports (Table 5-1).

Table 5-1: Albania's wine trade flows

	Unit	2010	2014	2015	2016	2017	2018	2019
Imports	(000) Euro	4,465	5,925	6,950	8,640	11,059	11,349	11,543
	Ton	2,549	2,631	3,447	4,148	4,882	4,573	4,934
	€/ kg	1.8	2.3	2	2.1	2.3	2.5	2.3
Exports	(000) Euro	52	35	76	62	155	90	42
	Ton	26	28	10	8	14	10	5
	€/ kg	2	1.3	7.6	7.8	11.1	9	8.4
Trade deficit	Value	-4,413	-5,890	-6,874	-8,578	-10,904	-11,259	-11,501
Export/ Import	Value	1.20%	0.60%	1.10%	0.70%	1.40%	0.80%	0.40%
	Weight	1.00%	1.10%	0.30%	0.20%	0.30%	0.20%	0.10%

Source: EUROSTAT (2020)

Regarding the geography of imports, the five main partners Albania imports wine from (in terms of volumes) are Italy, Kosovo, North Macedonia, Montenegro and France. Italy is by far the most important source of imports (2,792 tons of wine imports in 2019) counting for 56.6% of imports, (Table 5-2). The wine imports from Italy have been growing steadily during last five years with 15% in value and 12 % in quantity (ITC, 2020). Kosovo is the second main trading partner in terms of wine imports for Albania. During 2019, Albanian imports from Kosovo amounted to 1458.9 tons, or 29.6% of Albanian imports of wine. Important trading partners are also North Macedonia, Montenegro and France. Imports from North Macedonia and France have an increasing trend but they have a decreasing trend in the case of Montenegro (ITC, 2020).

Table 5-2: Albania's geography of wine imports

Partner	Volume of imports (Tons)	% to total Import volume	Value of imports (000 Euro)	% to total Value of imports	Import Price (Euro)
Italy	2792.3	56.6%	8267.9	71.6%	3.0
Kosovo	1458.9	29.6%	1112.8	9.6%	0.8
N Macedonia	271.4	5.5%	418.7	3.6%	1.5
Montenegro	231.2	4.7%	288.5	2.5%	1.2
France	94.2	1.9%	1055.3	9.1%	11.2
Spain	42.2	0.9%	154.9	1.3%	3.7
Slovenia	12.1	0.2%	63.4	0.5%	5.2
Others	32.1	0.7%	182.0	1.6%	5.7
Total	4934.3	100.0%	11543.4	100.0%	2.3

Source: EUROSTAT (2020)

Looking more closely at import prices, one may observe that the average import price from Italy is 3 Euro per litre, whilst average import prices from neighbouring countries (North Macedonia, Montenegro and Kosovo) and Spain is less than 2.00 US\$ per litre. There exists a third category of countries, from which Albania import at higher prices: specifically, the average price for wine imported from France is 11.20 euro per litre (Table 5-2); and the average price of wine imported from Greece is 8.00 Euro per litre.

Import of wine from Italy with such competitive prices represents a strong competition pressure particularly for wineries producing medium to high quality wine. On the other hand, the import of wine with very low prices (less than 2.00 US\$ per litre) and import of abnormal prices such as in case of Kosovo (0.8 Euro per litre) may hurt the whole industry. This is economically sound in case trading partners have comparative advantage (they can compete with low price and decent quality), but this may also represent an unfair trade in case of fraudulent products. Hence, an important role for National Food Authority (NFA) inspectors and Consumer protection inspectors

Albania wine exports are quite modest; they range from 5 tons in 2019 to 28 tons in 2014, Table 5-3.

Table 5-3: Albania's geography of wine exports (tons)

	2010	2014	2015	2016	2017	2018	2019
Kosovo	1.2	5.3	0.2	3.8	6.7	0.4	2.6
Germany		0.5	0.6	0.8	1.7	1.7	1.1
Italy		0.2	0.4	1.6	0.0	0.2	0.1
Switzerland		0.4	2.4		0.2	1.0	0.7
China			1.3	1.1	1.9	0.6	
Belgium			0.2	0.1	3.1		
USA	25.2					4.8	
Spain		21.9					
France			4.5		0.01		
Malaysia			0.4	0.4			
Macao						0.6	

	2010	2014	2015	2016	2017	2018	2019
North Macedonia							0.5
Denmark						0.5	
Total exports	26	28	10	8	14	10	5

Source: EUROSTAT (2020)

In terms of geography of exports, Albania exports consistently (though modest quantities) to Kosovo, Germany, Italy, Switzerland, and somewhat to China and Belgium. Other countries of export (in larger quantities though sporadically) are USA, Spain and France. For the rest of other export countries, Albania's exports are both modest and inconsistent (Table 5-3).

Filed interviews support that wine export is becoming an option. Wineries of Category 1 (producing medium to high quality wine) interviews all report exports. One winery (Arbëri) export 18% of wine; and they have the objective to export up to 50% of their production. The price of export is quite remunerative ranging from 8.00 to 11.00 Euro per litre during four latest years. The export price for wineries exporting ranges from 12 to 15 Euro.

5.2 DOMESTIC MARKET

Albania Wine consumption per capita per year (litres of pure Alcohol for people over 15 years old) in 2019 was 1.34 litres (Table 5-4). It became obvious that wine consumption per capita in Albania lags behind all Western Balkan countries, except Bosnia and Herzegovina; and of course, traditional wine consumption countries as shown by the list of top ten countries (Table 5-4).

Table 5-4: Wine per capita consumption for population above 15 years old – Albanian, top ten countries and western Balkan countries

Rank	Country	Per capita consumption (litres of pure Alcohol)	Change compared to preceding year (2019 vs 2018)	Change compared to five years (2019 vs 2014)
50	Albania	1.34	+1.5 %	+3.6 %
1	France	6.74	-0.9 %	-0.9 %
2	Portugal	6.25	-1.3 %	-0.4 %
3	Moldova	5.59	+2.0 %	+2.9 %
4	Slovenia	5.19	+0.2 %	+1.9 %
5	Luxembourg	5.03	-0.6 %	-0.8 %
6	Switzerland	4.38	-1.1 %	-0.9 %
7	Italy	4.35	-1.8 %	-2.6 %
8	Denmark	4.25	+0.0 %	-0.4 %
9	ST & Principe	4.14	+0.7 %	-1.3 %
10	Serbia	4.13	+1.7 %	+1.3 %
18	Croatia	3.47	-4.4 %	-5.8 %
24	Romania	2.90	-0.7 %	-1.9 %
34	Macedonia	2.39	+3.5 %	+14.2 %
40	Bulgaria	1.91	-0.5 %	+1.9 %
76	B&H	0.36	-2.7 %	-5.2 %

Source: World Health Organization (WHO) (2021).

Extracted from <https://www.nationmaster.com/nmx/ranking/wine-consumption-per-capita>¹².

That having said, Albania wine consumption per capita rose 3.7% between 2014 and 2019. In 2019, the country was ranked number 50 comparing other countries in wine consumption per capita at 1.34 litres of pure alcohol. France ranked the highest with 6.74 litres of pure alcohol in 2019, that is -0.9% compared to 2018. Portugal,

¹²Verified at <https://gateway.euro.who.int/en/indicators/hfa-428-3052-wine-consumed-in-pure-alcohol-litres-per-capita-age-15plus/>. Retrieved January 17th 2021

Moldova and Slovenia respectively ranked number 2, 3 and 4 in this ranking.

Consumer demand and preferences

Consumption of wine has increased significantly since early transition due to increased income and market liberalization. However, as presented in the previous chapter, the average per capita supply is still far below the European average, and also lags behind the European, particularly the South European on average - one reason might be the fact that in parts of Albania, local (homemade, thus not reflected in official statistics) production and consumption of rakia (brandy produced mainly from grape and plums) has been traditionally the main alcoholic beverage¹³. Serbia has the highest consumption per capita of wine from Balkan countries, while Bosnia&Herzegovina has the lowest consumption per capita.

It is common for Albanian consumers to buy wine and rakia directly from producers (farmers). The average Albanian consumer is accustomed to a traditional, farm-made wine. A new segment of demand, characterized by more globalised tastes and lifestyles is growing, in parallel with an affluent middle class of city inhabitants. At the same time, a slow process of qualification of demand is also on-going, with increasing awareness for food safety and market segmentation in function of available budgets. Interestingly, it is common also in urban areas for households to produce their own rakia (using grape bought in the local market) and to lesser extent, production of wine. Many produce their own rakia and wine, as a hobby, while, for others, the main reason is to ensure that the rakia and rakia they drink is produced purely from grape, and not spoiled.

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 origin (domestic versus imports). Generally, there is a strong consumer preference for domestic food products. Also, within the domestic product group, there are significant differences in perceptions based on the region of production within Albania. Most consumers view the region/area of origin is either important or very important when deciding to buy Albanian products. Natural conditions and genetic material (plants and breeds) can be perceived as being related to the origin of preferred regional products¹⁴. Although in the case of wine, the preference for local wine is not as dominant compared to imported wine (different from olive oil) – EU, especially Italian wines have a strong presence in the country. However, according to a previous consumer study¹⁵, there is a potential niche markets for Albanian local wine, and there is identified a consumer groups that are willing to pay higher prices for quality, domestic wines. Consumers have stated preference for wine from some regions such as Permet, Vlore and Lezha, where there is also a tradition of grape production and processing. The majority of respondents' state that they are willing to pay a premium for the preferred origin¹⁶.

5.3 PROFILE OF MAIN ACTORS IN THE DISTRIBUTION CHAIN

The main actors in the distribution chain are wine processors, who represent the main integrators of the chains and often are leaders of integrated value chains from primary production to the market. In this study, they have been categorised as wine processors producing high quality wine, medium quality wine and low-quality wine. For more information about their main characteristics refer to Structure of the industry.

¹³Zhllima, E., Imami, D., & Merkaj, E. (2012). Food consumer trends in post socialist countries: the case of Albania. *Economia agro-alimentare*.

¹⁴Imami, D., Skreli, E., Zhllima, E., Cela, A., & Sokoli, O. (2015). Consumer preferences for typical local products in Albania. *Economia agro-alimentare*.

¹⁵Zhllima, E., Chan-Halbrendt, C., Zhang, Q., Imami, D., Long, R., Leonetti, L., & Canavari, M. (2012). Latent class analysis of consumer preferences for wine in Tirana, Albania. *Journal of international food & agribusiness marketing*,24(4), 321-338.

¹⁶Imami, D., Skreli, E., Zhllima, E., Cela, A., & Sokoli, O. (2015). Consumer preferences for typical local products in Albania. *Economia agro-alimentare*.

5.4 KEY FEATURES AND CHALLENGES

Albania has a clear a growing trade balance deficit in wine because of growing imports and very modest exports. As presented in the previous chapters, the main country Albania is importing from is Italy which covers more than 4/5 of imports. Other trading partners are neighbouring countries (Kosovo, North Macedonia, Montenegro and Greece) and France.

The bulk of imports (mainly from Italy) is imported with very competitive prices which put Albanian wine industry in front of very competitive pressure. On the other hand, import or wine at very low prices risk hurting the whole wine industry.

Albania has the opportunity to increase wine production to meet the growing domestic demand and also to partially substitute some categories of imports. Albania wine consumption lags behind both traditional wine consumption countries and Balkan countries; she has the second lowest wine consumption capita (measured in litres of pure Alcohol) among Balkan countries, leaving behind only Bosnia and Herzegovina. The wine consumption is however growing because of changed lifestyles induced also by increased income per capita.

Though the trade data inform that the export of wine is modest and inconsistent (there is limited continuity in terms of export to same country), field interviews support that wine export is becoming an option.

The Albanian consumer prefer to buy products, including wine, directly at winery. This buying preference represent a chance to combine tourism with wine marketing. Actually, some wineries have invested in tourism facilities (guest rooms, restaurants, etc.) and other also have plans to do the same.

6 ATTAINMENT OF RELEVANT NATIONAL & EU STANDARDS

6.1 FOOD SAFETY

The food hygiene package of the European Union introduces the full direct responsibilities of the Food Business Operators for the safety of their food outputs, such as wine. This responsibility is based on the adoption of HACCP principles, the implementation of Good Manufacturing Practices and the hygiene of the food facilities. HACCP is now mandatory in Albania and must be adopted by all wineries.

Regarding technical regulations related to wine, as part of the food hygiene package, the Commission Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs, and further amendments and modifications, establishes a maximum level of ochratoxin A in wine and grape juice:

- wine and other wine and/or grape must-based drinks 2.0 µg/kg
- grape juice and grape juice ingredients in other drinks 2.0 µg/kg

NFA is performing controls on wineries, although specific data on controls on Ochratoxin A are not available yet.

Field interviews inform that private winery operators are aware of ochratoxin A issue but not specific attention is paid to this kind of contaminant. On the other hand, they state that no inspection has been conducted for their products regarding Ochratoxin A.

With reference to pesticide residues, the EU pesticide database includes 648 pesticides and the relevant MRL for wine grapes. A recent search identifies 156 active ingredients registered for use on wine vines, with the relevant MRL. In Albania, private winery operators (having vineyards) and vineyard farmers state that the MRL for wine grape is not an issue. The treatments they do (copper-based) does not represent any food safety problem.

Sulphur dioxide and sulphites are considered allergens under Regulation (EU) No. 1169/2011 on the provision of food information to consumers and can cause reactions in certain people, especially those sensitive to asthma.

Therefore, their presence in wine must be indicated on the label, by its full name¹⁷, where the level exceeds 10mg/kg or 10mg/L (expressed as SO₂). In Albania wineries are obliged to indicate the presence of sulphur dioxide and sulphites on the wine labels, which they actually do. NFA performs regular controls on labelling of final products.

Private food safety standards are available for certification in Albania, at different levels. Whilst BRC, IFS and other processing-level GFSI standards focus exclusively on food safety (HACCP, PRP, GMP), GlobalGAP covers occupational health and environmental issues at the farmer level¹⁸.

The table below describes the status of adoption of quality standards by interviewed domestic wineries. In addition to the technical regulation of HACCP, as mentioned nowadays mandatory in Albania, the ISO22000:2018 is adopted by some wineries but not by all, including wineries producing high quality wine, such as Case 2.

The three wineries of Category 1 have plans to participate in EU quality Schemes (PDO and PGI). According to them the lack of clear boundaries of native cultivars; and the lack of reliable data from wine register/cadastre represents an obstacle both in terms of developing trademarks where native cultivar is mentioned and PDO and PGI. Hence (according to the interviews) a need of (i) producing reliable data on native cultivar area boundaries and (ii) studying wine characteristics from related native cultivars. The study should involve wine industry, University and MARD.

Table 6-1 - Safety/quality standards in wine sector of Albania

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
	Medium to high quality wine (Category 1)			Medium Quality Wine (Category 2)		Table wine (Category 3)		
Safety and quality standards	HACCP; ISO:22000 2018. Under certification with TUV	HACCP; No interest in ISO:22000 2018	HACCP; ISO: 22000 2018	HACCP	HACCP; ISO:22000 2018	HACCP	HACCP	HACCP
	No BRC or any other quality standards							
EU Quality schemes	May consider	May consider	May consider	Some interest	Limited interest	Limited interest	No interest	No interest
Organic production	No interest	No interest	No interest	Interested in organic. Already planted a special cultivar immune to diseases.	Vineyard certified organic up to 2017, now integrated production; plans to go organic again	No interest in	No interest	No interest

Source: Authors based on field interviews

¹⁷'sulphites', 'sulfites', 'sulphur dioxide' or 'sulfur dioxide'.

¹⁸Elaborating on the EU set of rules, the EU private sector has developed voluntary food safety standards at both primary (farmers) and processing (wineries) levels. These standards mainly include GlobalGAP at the primary production level and BRC, IFS at processing level, all standards recognised by the Global Food Safety Initiative (GFSI), a private-sector initiative developed by the food industry players to homogenise standardisation in food safety. The ISO22000:2018 is an international food safety standard that can be adopted by each organisation in the food chain at all levels and stages and requested worldwide. Additionally, supermarket chains are setting additional own rules to limit the number of active ingredients with residues on a certain crop, reduce the official MRL, limit the use of hormones.

6.2 USE OF INPUTS, PPP

In the area of sustainable production, Directive 2009/128/EC was a milestone to achieve a sustainable use of pesticides in the EU by reducing the risks and impacts of pesticide use on human health and the environment and promoting the use of Integrated Pest Management (IPM) and of alternative approaches or techniques, such as non-chemical alternatives to pesticides. The directive implementation, delegated at each member state, is based on National Action Plans to implement the actions set out in the Directive¹⁹.

At a member state level, the Harmonised Risk Indicators established under Directive 2009/128/EC show the evolution in the risks to human health and the environment from pesticide use.

In Albania, the input dealers are the major advisors of farmers and grape growers. Field interviews inform that input dealers tend to offer farmers more PPP than needed, stimulating excessive spraying of PPP. Consequently, the situation of sustainable use of PPP is not fully under control and constitutes a barrier to competitiveness and market effectiveness of the sector.

6.3 ENVIRONMENTAL ASPECTS

In respect to environment protection, the EU has developed a set of rules related to cultivation areas that comprise:

- Nitrates directive (Council Directive 91/676/EEC).
- Directive on the conservation of wild birds (Directive 2009/147/EC).
- Directive on the conservation of natural habitats and of wild fauna and flora (Council Directive 92/43/EEC).
- Directive on sustainable use of pesticides (Directive 2009/128/EC).

The responsibility for implementing Nitrate Directive falls under the Ministry of environment, namely National Environment Agency. They are required to develop a national program on environment monitoring²⁰, part of which is also the monitoring of the level of nitrates/nitrites in water/soil. Fushe Kruja ATTC is also assigned the responsibility of monitoring the nitrates/nitrites in solid and water when the look after the efficacy of fertilizer when asked by farmers. Ministry of environment conducts monitoring on nitrate/nitrites according to the program; and Fushe-Kruja ATTC collect information when verifying the efficacy of fertilizers.

The sustainable use of plant protection products (PPP) in Albania is regulated with Decision of Council of Ministers 317/2019 “On approval of rules of sustainable use of PPP and qualification criteria for users of PBB. The objective of the regulations is to assure sustainable use of PPP, by minimizing risks and adverse impacts of PPP on human health and environment, also by promoting the use of alternative plant protection techniques, for example non chemical alternatives. A national monitoring plan is not being implemented however.

In the Albanian wine sector, the main impacts may come from (i) inappropriate nitrogen fertilization, for which a complete management plan is necessary, from soil analysis to selection, dosage and use of fertilisers (plant nutrition protocol), (ii) not sustainable use of pesticides, regarding which the EU aims to achieve a sustainable use of pesticides by reducing the risks and impacts of pesticide use on human health and the environment and promoting the use of Integrated Pest Management (IPM) and of alternative approaches or techniques, such as non-chemical alternatives to pesticides, this concerning selection, dosage, spraying and application of pesticides, and (iii) the possible presence of Natura2000 sites in connection with vineyard areas²¹.

¹⁹Training of users, advisors and distributors of pesticides; Inspection of pesticide application equipment; Prohibition of aerial spraying and limitation of pesticide use in sensitive areas; Information and awareness raising about pesticide risks.

²⁰ Decision of Councils of Ministers 1189/2009: “On the rules and procedures for preparing and implementing the national program for environment monitoring

²¹ This refers to sites of Community importance and creation of special protected areas.

7 PAST AND FUTURE INVESTMENTS TRENDS

7.1 PAST TRENDS

Primary production

The four main types of investment made by vineyard farmers during recent years are vineyard plantation, buying agricultural machineries, buy agricultural land and livestock. Slightly more than ¼ of farmers (28.8%) have invested in vineyard plantation and slightly less than ¼ (23.8%) have invested in agricultural machinery purchase, Table 7-1.

Table 7-1: Investment during the period 2014 through 2017

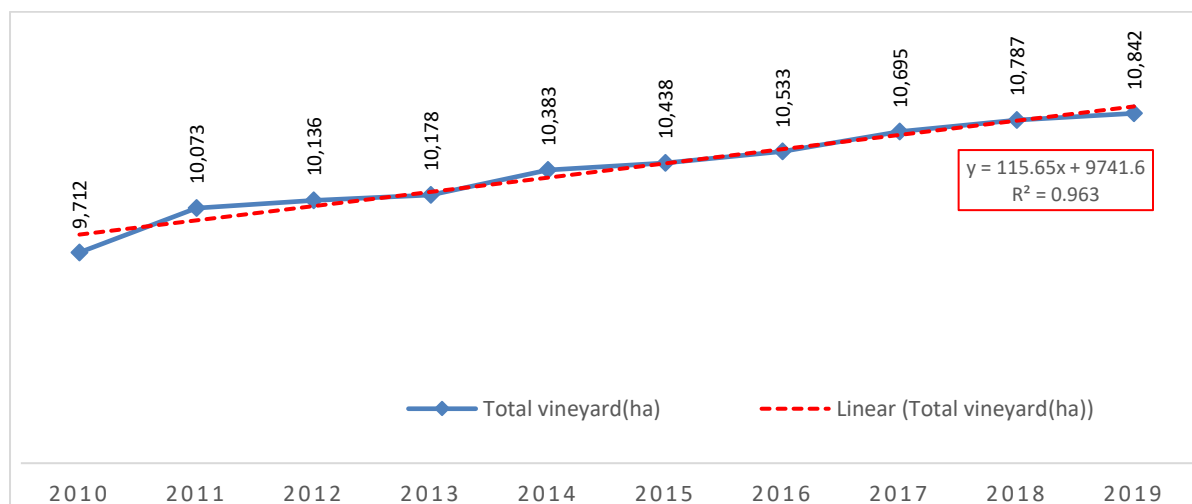
Type of investment	1st inv %	2nd %	3rd %
Vineyard plantation	28.8	17.5	21.3
Agricultural equipment (tractor, other machinery, etc.)	23.8	3.8	8.8
Buy agricultural land	18.8	26.3	18.8
Buy livestock	18.8	17.5	13.8
Invest in agricultural buildings or greenhouses	6.3	7.5	13.8
House, apartment or building	2.5	20.0	8.8
Buy non-agricultural land	1.3	1.3	7.5
Non-agricultural private company	0.0	1.3	2.5
Other	0.0	5.0	5.0
Total	100.0	100.0	100.0

Source: Authors based on FEDInvest data (2018)

A recent conducted survey (Institute for Development and Research Alternatives (IDRA), 2020) also supports that the main type of investment conducted by farmers are vineyard plantations (mentioned by 47% of responding farmers with vineyard as important activity) and purchase of agricultural machinery (17% of responders). Investment in irrigation systems (17% of responders) and in storing facilities (11% of responders) are also important.

After 2000, Albania has experienced a growing trend of vineyards areas. During 2000ies, area under grape has been growing rapidly – it almost doubled. The growing trend in vineyard plantation continued in the last decade as well (Figure 6).

Figure 6: The trend of vineyard area in Albania for the period 2010-2019



Source: Authors based on INSTAT (2020)

From the Figure 6, one may observe that, during last decade the vineyard area has increased by 115 ha per year (refer to equation in the picture).

An important trend to note is the upstream integration of wineries – wineries investing in their own vineyard. The trend is clearer for wineries having strategically chosen to produce high quality wine.

According to field interviews with farmers and processors and the recent survey (IDRA 2020), the main types of investment planned are vineyard plantation, purchase of agricultural machineries, investment in irrigation systems and – for large armers – investment in anti-hail nets as well.

The main source of funding is farmers own money and quite often informal funding from relatives and friends.

Processing

Administrative reported data on investment at processing level inform that investment in the wine sector is limited (it amounts from a minimum of 32.8 thousand Euro in 2018 to a maximum of 232.4 thousand Euro in 2015) and fluctuating, Table 7-2.

Table 7-2: Investment in the wine sector 2015-2018 (thousand Euro)

Activity	2016	2017	2018	2109
Distilled alcoholic beverages production	32	32	35	-
Wine production from grape	112	120	150	18
Total for the whole agro-processing industry	10424	10904	5943	

Source: MEFA (2020). Albania 12 subcommittee meeting agriculture and fisheries.

The field interviews support that well consolidated wineries, (Medaur, Duka, Nurellari, Arberi) have made large investment; Medaur have invested 700 thousand euro during the last five years, Arberi jhave invested 350 thousand Euro in winery only, and Duka and Nurellari have also made sizeable investment. On the other hand, small still unconsolidated companies have made no investment or rather small investment (Bello, Villa Sheshi). Wineries has invested in wine processing capacity increase but also quality improvement infrastructure (facilities) and machineries and equipment.

Investment planned for few years to come include winery capacity increase, vineyard plantation and continuing investment in retail trade. Improving quality infrastructure (cellars, integrated laboratories) is also an important investment planned mainly from small wineries having choose to produce good/high quality wine. The investment value for Small and medium size companies is around Euro 100,000 but it is much larger for large companies ranging from euro 100 thousand Euro to 1 million euro, Table 7-3.

Table 7-3: Investment during last five years and planned investment

Indicators	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
	Medium to high quality wine (Category 1)			Medium Quality Wine (Category 2)			Table wine (Cat 3)	
Investment in last 5 years	Investment in 2014 250,000 euro supported by national support schemes. Renovation/modernization of all six department. Investment in 2017, a modern filling equipment, with a budget of 100 thousand euro.	During the recent years have been made important investment. Wine Almost complete (90%). Winery total investment 1 million euro.	Vineyard 150.000 euro; Machineries, equipment-300.000 euro; Infrastructure, technology, laboratory - 250.000 euro.	No investment during last 5 years.	Capacity increase. Restaurant starting from last year. Boats and lake infrastructure.	Recently invested in wood barrels.	Testing room and simple restaurant: euro 8,000.	Stainless containers; refrigerator; 100 thousand euro.
Plans for investment	Applied to IPARD for vineyard special machineries and support system – CORTEN system (300 thousand euro). Special tractor and equipment; pruning equipment; sprout fasten equipment, etc. Planned 500 thousand euro up tom 2025 both in winery and vineyard, also using public support.	No investment planned in the winery for a midterm perspective. Applied for establishing a modern wine yard of 8 ha. Modern investment with a budget 320 thousand euro.	Plan for the develop winery in all the sectors like growing new different varieties of vineyards, machineries, infrastructure etc. Planned investment around 1 million euro.	Capacity increase and completion, including cellar and testing room: Euro 100,000. Bed and breakfast. No vineyard plantation: property right problems.	Capacity increase to 100 tons ²² , Vineyard plantation special machines for pruning waste grinding; solar panels. Wine lab, and accommodation (10 rooms) – 350,000 euro.	Capacity increase: euro 70,000. Vineyard (3 ha) – problem to find land because the area is very expensive and people sell the land for construction.	Facility renovation and equipment (cooling area, bottling and labelling line, wood barrels): euro 100,000. No vineyard plantation planned – people have left the area.	Wood containers; bottling and labelling line. 200 thousand euro.

Source: Authors based on field interviews

²²Value 20,000 Euro per 10 tons capacity increase

The main source of funding for small investment is own money, for large investment they resort to bank loans (according to field interviews) at very high interest rates. There are also wineries which have benefited from national schemes (Arberi, Nurellari, Duka, etc.); in this case they have to receive both short term loans (for the part supported by public money) and mid-term loans for the part expected to be paid by companies themselves.

Trade and services

While wineries integrate up stream (they invest in their own vineyards), there is also an emerging trend to invest downstream. Some wineries have combined wine production with wine retail. Duka winery has recently invested in a restaurant. Nurellari has invested in a restaurant a guest house. Çobo winery has opened a wine testing bar in Tirana.

IPARD II uptake

The total IPARD II support for grape and wine amounts to 5.5 Million Euro. Out of it, Euro 1.6 million or 28.9% is support to investment in primary production (Measure 1) and Euro 3.93 Million or 61.1% is support to wine producing industry (measure 3). There is no investment for diversification (measure 7).

Types of investment supported by IPARD programme include vineyard plantation (both establishment and expansion) with complete technology (planting, support system, irrigation system, and sometime anti-hail nets), agricultural machinery, special machinery and equipment for vineyards such as specialized tractors and cultivator, spraying pumps, and other specialized machineries).

The average supported investment in farms is 96 thousand Euro, the minimum investment is 23 thousand Euro (physical assets for farms) and the maximum supported is 360 thousand Euro (Special machineries for vineyards).

The investment in wineries include construction of winery buildings/cellars, complete wine production lines; machineries and equipment for storing/aging, packaging and labelling; machinery and equipment for cold stabilization and storing; etc.

The average supported investment in farms is 392,7 thousandEuro, the minimum investment is 48 thousand Euro (cold stabilization and storing) and the maximum supported is 1.8 Million Euro (winery construction and complete wine production line). On the other hand, if one outlier is excluded (a too large investment of 1.8 million Euro), the average investment amount to 234 thousand Euro and the maximum the largest investment supported is 581 thousand Euro.

7.2 EXPECTED FUTURE TRENDS

Based on past trend and stated plans, it is expected that the main types of investment at farm level are:

- investment for vineyard plantations
- investment in irrigation systems for vineyards
- buying agricultural machineries, particularly special machineries for vineyards, and, for large farms, anti-hail nets as well

The main investment types at processing level are:

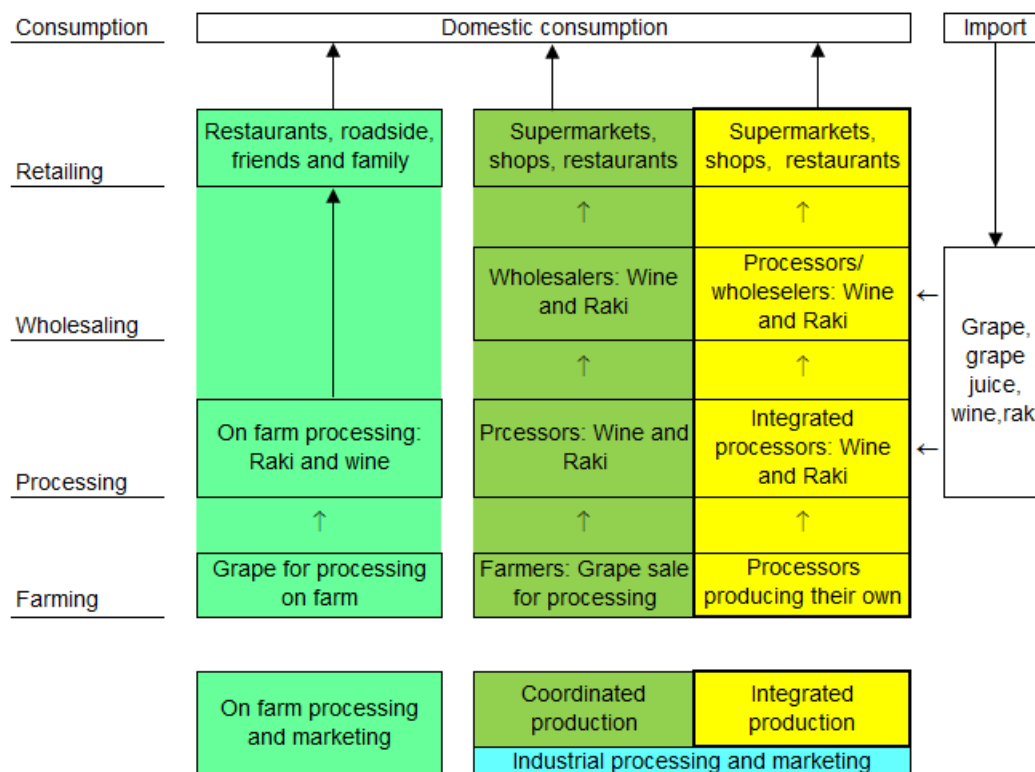
- wine processing capacity increase
- technology completion
- improving quality infrastructure (aging rooms/cellars, wood barrels, integrated laboratories)
- wine tourism facilities (for example show and testing rooms)
- upstream integration (investing own vineyards) and downstream (investing in retail, for example restaurants)

8 VALUE CHAIN ORGANISATION & ENABLING ENVIRONMENT

8.1 VALUE CHAIN MAP

Figure 7 maps the wine value chain²³ actors and the main channels through which grape flows from farmers to end use consumer.

Figure 7: Wine value chain actors



Source: GFA (2019)²⁴

The three main actors in the wine value chain are grape producing farmers, wine processing farmers and wine processors. The latter may be categorized into two groups - integrated processors and coordinated processors. While the profiles of actors are discussed before, in the following chapter we focus on value chain coordination.

8.2 VALUE CHAIN FLOWS AND CHAIN GOVERNANCE

Product, information and financial flows

Product flow: As represented in Figure 7: Wine value chain actors above, the product flows from farmer to consumer through two main channels, which may be named as: (i) farm processing channel and, (ii) the industrial processing channel.

On farm processing channel is an important marketing channel. Large quantity of wine and raki is produced and consumed at home - people tend to consume more wine than they did in the past. The rest of home-produced

²³ As in Albania, the term "value chain" is commonly adopted to describe the structure of a sector and the relations between actors (which, by the way is the same definition used by Food and Agriculture Organization (FAO), in our studies we use the term *value chain* as synonymous of *commodity chain*.

²⁴GFA. (2019). Wine Sector Study

wine and rakia reaches consumers (restaurants, direct sales at roadsides or sold to friends and relatives). The wholesalers are not always needed for the product entering this channel.

Industrial processing channel consists of two sub channels, though the separation is not clear-cut, namely integrated production and coordinated production. While in integrated production, substantial quantities of wine grapes come from farms owned or controlled by the winery as part of the same business, in case of coordinated production, there are large quantities of grape supplied by farmers that are not part of wine producing business. Integrated production is quite common, particularly in case of high-quality wine producing companies. Very often processors in industrial channel perform also wholesaler function (some of them have also retail outlets in the major cities, mainly in Tirana). The retail market for formal industrial production is restaurants, shops and supermarkets.

Part of industrial channel is also *informal processing sector* which is quite large. The informal sector is represented by unregistered wine producing companies or restaurants which buy grape and produce the wine they serve in their restaurants. Formalizing this sector is expected to lead to huge benefits in terms of fairer competition among wine producers, improving wine safety and quality, improving environment standard and increasing tax revenues.

Information flows. The information flow particularly technology information and advice from processors to farmer in the wine value chain is a must – grape suitability and quality is a major determinant of wine quality. Therefore, there is a permanent effort from the side of processors to advise grape supplying farmers, particularly in case of wineries producing medium to high quality (refer to Box 1). That said, according to the interviews, farmers often do not follow processors advice and that lead the latest to integrate vertically – invest in their own wineries.

Financial flows. Cash short term payment is common – farmers pay in cash for the inputs they buy and they are paid in cash for the produce they sell to wineries (although, with the recent formalization trend, there is a tendency to pay per bank in the case of larger actors). In some cases, wineries pre-finances inputs to farmers and for trusted suppliers conduct late payment.

Value chain governance

Integrated firm (both grape and wine are produced in the same company) is rather common model for wineries aiming at producing quality wine. Recent studies inform that the majority of wineries have their own vineyard. High transaction of dealing with a large number of small farmers (in terms of ensuring quality) is one of the main reasons of establishing a vineyard base. Indeed, several quality wine producers have invested in their own vineyards. In some cases, the entire processed grape is produced on own vineyard.

Wineries also buy grape from farmers. For those wineries which have large producing capacities, grape own production alone is not sufficient for producing enough wine needed to properly utilize the processing capacities and maintain reliable relationships with retailers (supermarkets, hotels, restaurants and other outlets). In case wineries buy wine grape from farmers, they tend to establish close relationships with farmers. This is particularly the case of wineries producing medium to high quality wine. They advise farmers on wine grape technology (pruning, irrigation, plant protection) setting sometimes even grape yield ceilings. There are also cases where wineries or buyers supply farmers with seedlings, support vineyard construction and signing contracts for buying the grape for first production years. There is often oral agreement between wineries and supplying farmers, but written agreements are not common (one may find them only in exceptional cases). Table 8-1 summarises the relationships between farmers and wine processors for interviewed wineries.

Table 8-1: Processors – farmers relationships

Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
High Quality		Medium Quality				Low quality	

Written contract of a length of 20 years. On time payment to farmers. Farmers advised by one Italian and one Albanian agronomist.	Have oral agreement with them. It is difficult to deal with them. Farmers are advised by the company.	No supply from farmers.	No assistance.	No contacts with farmers and low influence on grape quality.	Do not advice supply famers. Look for the needed cultivar and quality grape only at the time of harvest.	This year they did not buy any grape from farmers. In this case, the make a contract with farmers.	Monitor all grape production technology for supplying farmers.
---	---	-------------------------	----------------	--	--	--	--

Source: Authors, based on field interviews

8.3 COLLECTIVE ACTIONS

Collective action in the vineyard sector is very limited. The only case of collective action in the sector is the case of “Hajmeli” group of farmers. Actually, the collective action has been reduced to conducting jointly some technology operations that imply exchange of knowledge and skills (such a s vineyard pruning). Though registered and Association of Agricultural Collaboration (AAC), there are no any assets owned and managed jointly or any economic function (input procurement or produce sale) conducted jointly.

9 POTENTIALS AND NEEDS OF THE SECTOR

9.1 KEY SECTOR TRENDS

Most agriculture holdings in Albania are mixed and (semi)subsistence farm and most farms cultivate grape, both vineyards and pergola. That having said, slightly more than one in ten farmers (35,666 farmers out of 320,000 farms in Albania) have vineyards. Data suggest that there is slow but steady upward trend of investments in vineyard plantation.

In 2019 Albania produced 23,470 tons of wine. After a steep increase between 2000 and 2013 (wine production increase 5 times, from 7413 tons in 2000 to 38,000 tons in 2013), wine production dropped drastically to 23,300 tons in 2014 and remained almost stable till 2019. Though stagnation seems to be the trend in wine production, a more detailed analysis (based on field interviews) suggests an upward trend particularly for wineries producing high and medium quality wine, though they represent 10-15% of total winery number.

The prospect of positive trend in wine sector is also supported by still unmet domestic demand. Wine is considered an import substitution sector, with little chances of exports. The per wine per capita consumption in Albania (10.8 litre per capital in 2017) remain behind compared to Serbia, Montenegro and of course main EU countries. Given the change in Albanian consumers preferences (moving from strong drinks, such as rakia, to wine), and given the prospect of income increased, one may expect increased demand for domestic wine.

The domestic supply in Albania is clearly dominated by domestic production (the import to domestic supply 1/12). Still, imports remain significant - Albania imports regularly between 2000 and 2500 tons of wine per year.

Given the above trend, it is assessed that the wine sector in Albania sees slow but steady expansion for primary production and high and medium quality wine sector and stagnating for low quality wine as the sector dashboard below explains.

Figure 8: Wine sector key development trends during last five years and future expected trends

Sub-sector	Expansion/contraction (1-5 strong shrinking-strong expansion)					Consolidation (1-5 stagnant-changing fast)				
	1	2	3	4	5	1	2	3	4	5
Primary production										
Wine processing – medium to high quality										
Wine processing – medium quality										
Wine processing – Table										

Source: Authors based on field interviews and expert assessment

Note: Pandemic impact has also been considered

Public support to wine sector has been significant, particularly from IPARD programme. The support provided to the sector from National Support Scheme for the period 2007 through 2019 amounts or ALL 486 Million (Euro 3.95 Mil; exchange rate 1 Euro=123 ALL), and the support from IPARD amounts to Euro 5.5 Million.

The number of commercial vineyard farmers is rather small. Farmers with vineyards larger than 0.50 ha is 2,656.00 with a corresponding vineyard area of 2,949.00 ha, the number of farms having more than 1 ha of vineyard is 708 with a corresponding vineyard area of 1306, and the number of larger farms having more than 2.00 ha of vineyard is 137, with corresponding vineyard area of 544.00 ha. There is an emergent (slow but steady) trend of vineyard size increase particularly from wine producing farms and from integrated wineries.

The main areas of grape production lie between the hills and the coast of central Albania. The leading region in terms of vineyard area is the Fier region, contributing with about 19.5% of total vineyard area. Other important producing regions are Elbasan, Vloora and Berat, which together with Fier make up more than half (54.4%) of total vineyard area. Similar pattern is observed in term of pergola trees. However, Shkodra (ranked second) and Lezha report high number of pergola trees.

The yield of vineyard averages 111 kv/ha; it varies immensely however among regions ranging from 62.4 kv per ha in Korça and 171.1 kv/ha in Fier. At municipality level, vineyard yield in Lushnja and Divjaka municipalities (Fier region) goes as high as 240 kv/ha. To the contrary, Tirana, Berat and Vloora municipalities have yield lower than 100 kv/ha - with 97 kv/ha for Tirana, 80 kv/ha for Berat and 70 kv/ha for Vloora. Country's average yield almost doubled (increased 1.9 times) between 1998 and 2014 (from 65.9 kv/ha to 125.2 kv/ha), and dropped significantly with from 2014 to 2019 (from 125.2 kv/ha to 111 kv/ha)

Both domestic (autochthonous) and imported wine cultivars are used for producing grape intended to wine. Most used domestic cultivars are Sheshi i Zi and Sheshi i Bardhë (between 50% and 60% of production), followed Kallmet, Vlosh, Cerruja, Puls, etc. Imported wine cultivars are Merlot (between 10% and 15% of production), Cabernet Sauvignon (10% of production), Chardonnay, Riesling, Petit Verdon, Shiraz, Vranac, etc. It is estimated that 70% of wine grape come from domestic cultivars and the remaining 30% from the imported wine cultivars. Though no winery has registered any PDO or PGI, there is a tendency from wineries producing high quality wine to prefer domestic varieties (Kallmet, Vlosh, Puls, Cerruja and others). Tourism, especially, foreign tourism has been a driving force to shift to local varieties as well as to widen the segment of higher quality, expensive local wines. This may also be considered as a promising trend for participating in quality schemes.

While the production of wine coming from the wineries producing medium and low-quality wine is the largest, there is a trend which is expected to result in expansion of production from wineries producing high quality wine. This is happening through investment of high-quality producing wine (both in vineyards and expansion of wine processing capacity) but also by upgrading of a significant number of wineries producing medium quality wine. Some of these wineries have started or have plans to invest in capacity extension, cellar construction and wine aging in wood barrels.

The above trend is supported by emerging preference for domestic wine because of improved quality of domestic wine and – as put by one winery operators – “while imported wines have familiarised Albanian consumers with high prices, the latest are now questioning the quality of imported wines”. On the other hand, demand is also expected to be affected by foreign tourist who prefer domestic wine.

There is a continuing trend toward vertical integration – wineries invest in vineyard. Many high quality and medium quality producing wineries have planted their own vineyard; and they have plans to enlarge the vineyard area. This is mainly due to a difficult relationship between of wineries with grape supplying farmers.

Participation in quality schemes is negligible. Only 5 ha of vineyard with e corresponding production of 7 tons in process of registration. Further there is not any wineries that have registered any PDO or PGI. That having said, field interview informs about plans from some wineries to convert to organic. On the other hand, the focus of domestic cultivars by wineries producing high quality wine support the potential for participating in the quality schemes.

The informality remains widespread in the wine sector. Many low-quality producing wineries and all farmers producing home wine are informal. They make an unfair competition for formal wineries through dumping the wine prices.

There is slow but steady increase in vineyard area and wine supply from wineries producing high and medium quality wine. Production technology and marketing know-how among the high-quality producers has improved significantly. The high and medium quality wine is expected to “gain terrain” against imported quality wine because of changes in preference of Albanian consumers (they have started to prefer quality domestic wine) and because foreign tourist prefer domestic wines.

Local consumption trends, as well growing tourism trends (exception should be highlighted for the COVID19 2020 and 2021 years) has driven and will continue to drive growing demand for wine, especially for high quality wine.

9.2 SWOT ANALYSIS AND POTENTIAL NEEDS OF THE SECTOR

Based on analysis in previous chapters, the main strengths, weaknesses, opportunities and risks are synthesised below, in form of three SWOT analysis - for farmers, wine operators and wine sector.

Table 9-1: SWOT analysis for vineyard farmers

STRENGTHS (+)	WEAKNESSES (-)
<ul style="list-style-type: none"> • Local/autochthon grape cultivars are well adapted to local conditions and appreciated by consumers. • Cultivation of autochthon grape varieties by wineries producing high quality wine and by farmers in certain areas is becoming a trend. • Farmers' tradition in grape production motivated by high demand for raki production; Traditional knowledge on grape production. • Emerging category of farmers interested in product safety and quality. • Emerging category of farmers interested in cost calculation and financial literacy. 	<ul style="list-style-type: none"> • Errors in selecting grape cultivar according to the condition of climate and soil. • Insufficient use of autochthon grape varieties, in some areas. • Use of uncertified planting material (seedlings). • Limited know-how/skills on grape grafting needed to convert to cultivar suitable to wine. • Insufficient know how in terms of plant protection and plant nutrition. • Insufficient knowledge in wine grape production technology: strong orientation towards quantity at the detriment of grape quality. • Limited know-how on food products quality and safety standards. • Limited know how on pre-harvest raw material analysis (estimation of sugar, acidity, pH), harvest and post-harvest and production quality assessment. • Grape organic production only in exceptional cases, a few farmers plan to go organic. • Poor physical assets base, in terms of special vineyard machineries and equipment. • Low grape price since not suitable for wine production. • Lack of knowledge on sustainable farming (including soil conservation and environment protection) and climate change mitigation. • Lack of marketing skills among producers. • Only a small proportion of farmers are financial literate and very few have know-how on business plan preparation.
OPPORTUNITIES (+)	THREATS (-)
<ul style="list-style-type: none"> • Increased demand for wine grape from wineries. • Favorable government policy for the sector in the recent past. • Access to public funds for improvement in the previous programming period. <p>Government support for autochthon grape varieties.</p>	<ul style="list-style-type: none"> • Recent decreasing support from public funding. • Increasing competition from other regional producers: (still some) import of grape juice for wine production. • Competition from imported wine; import of wine at abnormal low prices. • Still unresolved land property rights hampers investment in increasing vineyard area. • Difficult access to market due to lack of business relationships with wineries. <p>Production risk due to climate changes, including more frequent hail precipitation and abnormally high temperatures.</p>

Table 9-2: SWOT analysis for wine processors

STRENGTHS (+)	WEAKNESSES (-)
<ul style="list-style-type: none"> • Clear focus of wineries producing high quality wine in domestic cultivars. • General trend of upstream vertical integration (investment in vineyards) which are more common from wineries producing high quality wine. • Emerging downstream vertical integration – some wineries are investing in retail (restaurants) and short chains. • Growing trend in investment for both capacity increased and production qualification in wineries producing medium and high-quality wine. • Good technological expertise in wineries producing high quality wine: enologist plus in-house skills related mainly to returned emigrants know how in wine production. • All formal wineries have adopted HACCP, which is nowadays mandatory in Albania. 	<ul style="list-style-type: none"> • Limited production capacity in certain area, or shortage of grape supply in other areas. • Poor capacity exploitation due to difficult access to market. • Poor internal/integrated laboratory infrastructure. • Poor technological expertise in informal and small wineries. • Poor marketing - unfavorable price/quality ratio of quality wines. • Insufficient investment in marketing. • No wineries are participating in quality schemes (PDO, PGI) - few wineries have plans to participate in EU quality schemes. • Not due importance attached to voluntary standards (ISO 22000:2018, BRC, IFS, etc.). • Financial incapacity to invest, mainly in small wineries.
OPPORTUNITIES (+)	THREATS (-)
<ul style="list-style-type: none"> • Increased demand for wine due to changes in consumers' lifestyles and still unmet domestic demand. • Increased demand for high quality wine in coastal based restaurants. • Increased demand from rural tourism development favored by the trust Albanian consumer attaches to buying direct from producers. • Tourism development based on high quality wine. • Favorable government policy for the sector during latest years. 	<ul style="list-style-type: none"> • Recent decreasing support from public funding. • Competition from other regional producers: (still some) import of grape juice for wine production. • Competition from other regional producers: import of wine at abnormally low prices. • Difficulty to source high quality grape from farmers (improper cultivars & low quality/low sugar content).

Table 9-3: SWOT analysis for wine sector

STRENGTHS (+)	WEAKNESSES (-)
<ul style="list-style-type: none"> • Favourable climatic conditions and tradition in grape production. • Returned emigrants with know-how in wine production. • Increased grape production base; and often using integrated form of governance (wineries invest in vineyards). • Emerging agglomerations of wineries in specific geographical areas. • Public extension service has a national coverage and experienced extension service staff. • (Vlora) ATTC specialized in fruit trees, including vineyard, is operational. • Vineyard and wine cadastre data base has been established and is being maintained by Fushe-Kruja ATTC. Fushe Kruja ATTC collects data on vineyards by combining field data collection with orthophotos. Vineyard area registration with a national coverage has been completed last year. • Input dealers (particularly) and buyers play a very important role by providing advice and information. 	<ul style="list-style-type: none"> • Lack of complete protocols of planting material certification – only three out of five stages are followed. • Poor marketing and limited promotion of domestic high-quality wine by wine producers or their associations. • Extension service largely fails to advice vineyard farmers. Some other critical issues related to extension service are: (i) lack of strategic management, (ii) insufficient cooperation of public advisers with farmers and processors; (iii) Insufficient consideration of sector challenges and opportunities; (iv) disadvantaged age and background structure and lack of professional development, and (v) lack of proper budgeting. • Vlora ATTC suffers from lack of strategic management, shortage of qualified staff and insufficient budget. • Vineyard registration data is represented by non-consistent data (data collected in different years). No data have been collected on wine processing. Orthophotos are been produced only in some years without any periodicity. • Lack of complete production protocols for plant protection, plant nutrition and production technology. This leads also to

	abuse of input dealers– sometimes they prescribe more inputs than needed.
OPPORTUNITIES (+)	THREATS (-)
<ul style="list-style-type: none"> • Increased demand for wine due to changes in consumers' lifestyles, increased domestic wine quality and still unmet domestic demand. • Favourable government policy for the sector during past period. • A new law and implementing regulations on vineyard and wine has been prepared and it is expected to be adopted soon. 	<ul style="list-style-type: none"> • Recent decreasing support from public funding. • Increasing competition from other regional producers: (Still some) import of grape juice for wine production and import of wine. • Incomplete legislation on the wine sector. • Not yet any legislation on vineyard/ wine register. • Lack of enforcement of vineyard/wine registers, which requires all actors in the value chain “farmers, harvesters, producers, processors and bottlers” to provide data to keep the register up to data contributes to high level of informality in the sector. • High share of informal production/processing leading to unfair competition, poor safety and low-quality standards.

10 TRAINING AND ADVISORY NEEDS FOR THE SECTOR

10.1 TECHNICAL AND VOCATIONAL TRAINING

There are 18 vocational public schools in Albania, 7 of which offer food processing know-how and 8 offer agricultural technology (including grape production) know-how (refer to Public vocational schools). In food processing technology programmes, beverage processing technology is also a profile and modules on wine processing are also part of curricula.

In terms of post-secondary education, only Qiriazhi College in Tirana has a program on food processing technology.

Department of Agrifood Technology, part of the Faculty of Food and Technology offers both bachelor and master degree programmes in Oenology and Vineyard technology. The Faculty of Food and Technology has also its own winery intended mostly for students' practice.

Short term training courses are offered by public and private (licensed) training centres. The sommeliers association of has delivered training courses on oenology and sommelier. It is important to mention that (as in other sectors as well) short training courses are becoming, more frequent and preferred because are tailor made, practical. That having said, they cannot substitute for formal education but should be complementary with.

10.2 TRAINING TO VALUE CHAIN ACTORS

The following section presents a synthesis of farmers need assessment regarding training and advice. Farmers need advice regarding the selection of grape cultivars; plant nutrition (fertilization) and plant protection; other technology related issues; food safety and environments issues; financial literacy; assistance for getting access to finances; training and assistance in both vertical and horizontal cooperation. Farmers training need and related service providers are summarised in Table 10-1.

Table 10-1: Farmers needs for advice and capacity building and service providers

Farmers' needs	Service providers
Cultivar selection Training on selection wine grape/cultivars according to the conditions of the region (climate, soil); autochthon cultivar selection	Vlora ATTC Extension workers Wine grape Buyers
Plant nutrition Training on plant nutrition (fertilization) based on standard plant nutrition protocols. Standard protocols on using of chemical fertilizers, at the right time and proper doses, to provide integrated production, should be prepared by expert institutions (Vlora ATTC, AUT, etc.) and delivered to farmers by extension workers	VLora ATTC, Agricultural University Extension workers
Plant protection Training on plant protection based on standard plant protection protocols. Standard protocols on using of PPP, at the right time and proper doses, to provide integrated production, should be prepared by expert institutions (Vlora ATTC, AUT, etc.) and delivered to farmers by extension workers	VLora ATTC, Agricultural University Extension workers
Other technology related needs	Vlora ATTC Extension workers
Grafting Field demonstration/training on wine grape grafting for existing vineyards with unsuitable grape cultivars for wine production	Agricultural universities Faculty of Agriculture and Environment, AUT
Pruning, green pruning, and production control Field demonstration/training on wine grape pruning, green pruning and production control (removing excess production with the objective of improving wine grape quality)	Faculty of Agriculture, University of Korca Wineries
Irrigation	Private service providers:

Training on irrigation and wine grape quality. Combination of training on technology (irrigation and yield) and economics (income per ha and market access) may be considered	consultants, input suppliers, Non-Government Organizations)
Production quality management and assessment Demonstration on production quality assessment and time of harvest; training on harvest and post-harvest practices	
Safety and environment issues	Vlora ATTC Extension workers Faculty of Agriculture and Environment, AUT
Training on product quality and safety standards	
Training on sustainable/integrated production and climate change mitigation	
Financial literacy Advice on financial aspects, including keeping economic and financial notes, and cost, gross margin and profit calculation	Extension workers Faculty of Economics and Agribusiness; Other economics faculties; Private service providers
Assistance for getting access in finances Assistance in preparation of applications for accessing National Support Scheme and IPARD funding	
Assistance in preparation of bankable projects for getting access to loans	
Assistance and training to improve cooperation	Extension workers Faculty of Economics and Agribusiness; Private service providers
Training on costs and benefits of sustainable relationship vineyard farmer-winery	
Develop vertical cooperation platforms between farmers and wineries	
Training on contract farming and developing standard farming contract	
Training on horizontal cooperation among vineyard farmers	

Source: Field interviews, and (DSA) (2019). Skills Needs Review Study and drafting a sub-sector Skills Strategy for the wine-processing industry in Albania

Grape cultivar (including autochthon cultivar selection) in order to guarantee cultivar suitability to soil and climate conditions is the first step to producing quality wine grape. Very rarely farmers make soil analysis to determine suitability of cultivar to soil.

Additionally, farmers need advice in terms of plant nutrition (fertilizations) based on soil type and soil needs. As in case of vineyard plantations, farmers, very rarely, make soil test to select the suitable cultivar and make plant nutrition based on soil analysis. It recommended that extension officers use plant nutrition standard protocols when advising farmers.

Plant protection is also a major need of farmers. The main service providers in terms of plant protection are input suppliers – together with inputs they provide advice on plant protection products (PPP) use. There is a conflict of interests, however. Field interviews inform that sometimes input-dealers offer farmers more PPP than needed. Hence there is a need for a more honest advice provider based on objective data. Weather stations or (better) prognosis and signalling stations managed by extensionists may lead to a more objective and efficacy use of PPP. It recommended that extension officers use plant protection standard protocols when advising farmers.

Advice aiming at producing grape suitably to wine processing is a must for both farmers and wine industry. The main needs in terms of production technology include advice on grafting, pruning, green pruning, production control, irrigation and production quality management and assessment in addition to plant protection²⁵.

Larger farmers need also training and advice on financial literacy (cost and profit calculation) and business plan and application for grant accession assistance. Both large and small farmers need assistance in terms of application preparations for getting access to finance (public support and loans).

Improve awareness and understating on cooperation (both vertical: farmer-buyer, and horizontal: among farmers) is critical for improving cooperation given the small farm size as a major structural problem.

²⁵ Sometimes, farmers with the objective of increase grape yields per ha combine in the same parcel Kallmeti with other (high yield) cultivar such as Sheshi i Zi. This leads to higher yields but lower grape quality; this is at detriment of wine processors.

Farmers' demand for training and advice on product safety and particularly environment issues (soil and water pollution, climate change etc.) are not yet clearly manifest and need to be created.

It is important to note that sometime, extension workers lag behind compared to advance in terms of knowledge and skills. What is recommended however that extension service develop standard advice and training modules addressing typical needs and intended to typical grape farmers.

The main wine processors' needs include: (i) wine processing technology – both grape production and wine processing, and wine testing; (ii) implementation and certification of safety and quality standards; (iii) marketing and promotion; (iv) and financial literacy and business plan preparation. While extension workers – particularly ATTCs (namely Vlora ATTC) should also advice on wine production technology, it is not the case. The advice on production technology is therefore provided either by in house staff, private consultant or input suppliers. Private consultant, and other (Non-MARD) entities provide marketing and economic advice. Table 10-2 summarises wine processors need in terms of advice and capacity building.

Table 10-2: Processors needs for advice and capacity building and service providers

Processors' needs	Service providers
Training and consulting on post-harvest practices	Oenologists
Training and coaching on wine production technology (processing, stabilizing, aging, storing, coupage, etc.)	Oenologists
	Input providers
	Agricultural university
Improve awareness and understanding on wine testing and related corrective actions	
Consultancy on developing, implementing and certification of international quality standards (ISO, HACCP, etc.)	Quality standards experts
Training and coaching of marketing and sales	Universities
	Advertising agencies
Conducting marketing surveys and developing marketing plans	Local development agencies
	University
	Donor projects
Providing marketing information services - fair participation promotion and others	Ministry of economy, MARD
	Business associations
Developing corporate identity (promotional materials)	Local development agencies
Implementation and certification by quality and safety standards for integrated wineries (organic)	Private consultants
	Donor projects
Financial analysis/management	Local development agencies/ Business development specialists
Preparation of business plans/support for loan applications	Business development specialists
	Enologists
	University

Source: Field interviews and DSA (2019)

10.3 IMPROVING ADVISORY AND TECHNICAL SERVICES

Extension service

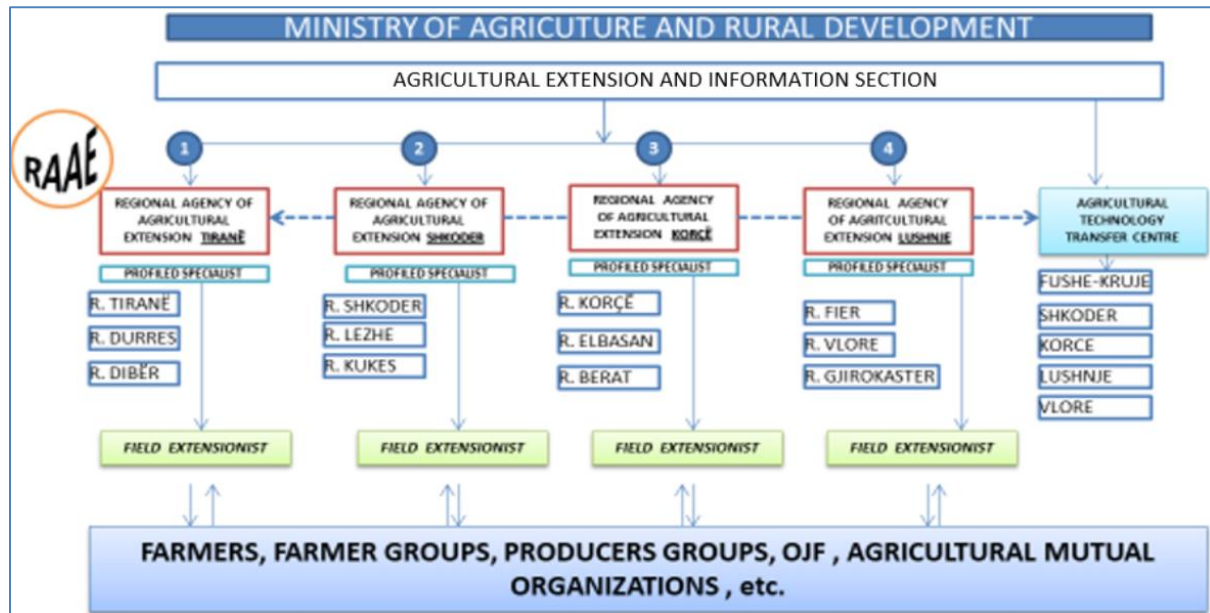
In 2018, ANES was restructured from 13 Directorates at district level to four larger regional centres – Tirana, Korça, Shkodra, Lushnja²⁶. The regional centres cover the following districts:

²⁶Decision 147/13.03.2018 of Council of Ministers on the establishment, organisation and functioning of the Regional Agricultural Extension Agencies

- Shkodra Regional Agricultural Extension Agency (RAEA) include the districts of Lezhe, Shkoder, and Kukes.
- Tirana RAEA include the districts of Durres, Tirana and Dibra.
- Lushnja RAEA include the districts of Fier, Vlora dhe Gjirokastra.
- Korca RAEA include the districts of Korça, Elbasan and Berat.

The figure below describes the new structure of the public extension services under the MARD.

Figure 9: The new structure of public extension service



Source: NIRAS IC (2019)²⁷

Currently, the ANES is composed of 261 civil servants²⁸, out of whom 24 are profilled experts (28 together with head of sectors), 189 are extension workers (201 together with the head of sectors), 12 are statistics experts and 16 are dealing with finance and services. In each region, there are 6 subject matter specialists (7 together with the head of the sector), for the following sectors (group of sectors or crosscutting areas) horticulture, livestock, machinery and fertilisers, plant protection, farm management and cooperation expert and statistical expert, 40 to 50 extension officers, and 3 statistics experts.

Table 10-3: Composition of ANES staff in Albania²⁹

RAAE	Total number	Director	Sector of finance and Services	Head of Sector of profilled experts	Profilled experts	Head of Sector of Extension	Extension officers	Statistics specialist
Tiranë	63	1	4	1	6	3	45	3
Shkodër	58	1	4	1	6	3	40	3
Lushnje	72	1	4	1	6	3	54	3
Korçë	68	1	4	1	6	3	50	3
Total	261	4	16	4	24	12	189	12

Source: Prime Minister Order, Number 87, date 13.6.2018

²⁷NIRAS IC (2019). Strategic Action Plan 2020-2021 (draft final) –Albania National Extension Service.

²⁸ Currently (March 2021), there are 23 vacancies: 2 profilled specialists, 2 statistics experts, and 19 extension officers (MARD, information by request).

²⁹ Prime Minister Order Number 87, date 13.6.2018

The majority of the extensionists are agronomists, about 20% are zootechnicians and 10% are economists; around 30% are women. About three quarters of ANES employees are in field offices, while the rest are at regional level (including the economist in charge with statistical data). The average age of extensionists is about 54 years, with only 8% (17) under 40 years old.

The Decision of Council of Ministers (DCM) states the advisers' main roles are: (i) transfer of knowledge to farmers, (ii) provide information and assist farmers to access grants (national schemes / EU co-founded IPARD), (iii) to stimulate farmer cooperation, (iv) provide professional trainings in agriculture and rural development, (v) to ensure information on standards regarding the environment, food quality, marketing, organic agriculture, products with geographical indicators etc, (vi) advise farmers on selection of agricultural equipment, and (vii) provide general information for the farming community and the public through the mass media.

However, in reality a large portion of advisers' time is on forecasting and gathering farm data for the statistics function of MARD including information on agri-sector performance for publication (NIRAS, 2019). It is stated in the DCM that the agencies also have the following complementary and administrative duties: (i) to take part in the drafting of the supporting subsidies schemes and in the implementation of development programmes in agriculture; (ii) to make observations on the database system of the Farm Accountability Data Network (FADN); (iii) to participate in the statistical data collection, forecast for the agriculture, livestock production, and in the evaluation of the damages assessment caused by natural disasters in agriculture etc., (iv) to ensure continuous training for the extensionists; (v) to offer services for the agricultural farms, the institutions, the local governing units (such as development plans, investment programs, business plans, economic management plans, rural development programmes, analyses etc.); (vi) to carry out other duties as assigned by the ministry responsible for agriculture.

The employees of the agencies are civil servants, which means their employment is covered by the Law no.152/2013 "On Civil Servants". This law regulates the legal framework between the government and civil servants. It defines the procedures of civil service administration. Each Ministry, public institution or legal entity which is established by law, should follow the requirements provided in this law.

Based on the law (90/2012dated 27.9.2012 "Organization and functioning of public administration), the public institutions can cooperate with each other as well as with the local governance units in compliance with the relevant legislation.

ANES needs assessment of farmers is done through one-to-one contact with farmers in their offices. Each adviser has some form of contact (advice, information dissemination, data gathering, farm trials) with approximately 2000 farmers, indicating a total of around 300,000 farmers annually – this figure appears unrealistically high. Needs analysis is also done on about 130 contact farms (roughly 30 in each regional area) selected for collaborative on-farm trials.

Agriculture Technology Transfer Centres

The main institutions conducting sector research are: five Agriculture Technology Transfer Centres (ATTCs) subordinated to MARD. The ATTCs also provide advisory training to ANES and some knowledge transfer to farmers, for example through demonstration days. The average age of staff of ATTCs is high at more than 55 years. Young recruits in recent years are being trained on the job by the more experienced staff.

Other institutions related one way or the other with farmers advice are Agriculture University Tirana, Agriculture and Rural Development Agency, Veterinary services, Plant Protection Laboratory – Durres, Food Safety & Veterinary Institute (FSVI), and National Food Authority.

Vlora ATTC

Vlora ATTC is mandated with technology transfer in wine sector. Its legal mandate and a description of tasks performed by the Center are described in the Box 2.

Box 2: Vlora Agricultural Technology Transfer Center

Vlora ATTC Mandate

Main tasks

- Technical assistance and training on designing and implementing nurseries, orchards, olives, vineyards, and citrus plantations.
- Production and reproduction of planting certified materials in nurseries (orchards, olives, vineyards and citrus trees).
- On farm Research and tests in response to problems raised by orchards, olives, vineyards and citrus farmers.
- Training for fruit experts, farmer and other interested subjects.
- Offering technical expertise for extension workers and farmers.
- New technology demonstration in terms of orchards, olives, vineyards and citrus.
- Preparation and publication of extension materials for fruit experts and farmers.

Other tasks:

- Addressing any regional needs in terms of technology development and transfer
- Agro-zonal testing as requested by other ATTCs.
- Identification and preparation of projects addressing specific problems in the regions.
- Supporting internships for students of Agricultural University of Tirana.

Vlora ATTC in practice

ATTC has 15 technical experts (actually³⁰ 10 people and 5 vacancies) and three technical experts. The staff of specialists carry out applied research on farms and orchards/plantations in institution's ownership. The staff constantly is growing its expertise and seeking to increase the work performance. They participate in national/international conferences and publish their scientific research work. According to structure, two of staff member have a doctoral degree and four of them have a 2-year post graduate degree, meanwhile other employee holds a degree in Master of Sciences. Members of the staff hold certificates of EU languages, including English.

The research infrastructure is good and well maintained. The Centre has a modern well-maintained greenhouse used for olive seedling production. ATTC does not possess parcels with mother plants to produce anti-phyloxera rootstocks.

The ATTC has a mother orchard of 4.5 ha planted with autochthon varieties (Sheshi i Zi, Sheshi i Bardhe, Puls, Kallmet, Vlosh, etc.) which has been contracted for producing local autochthon varieties. The problem is however that the trees are infected with viral diseases. The mother orchard intended to supply with plant material seedlings producers. In these parcels are applied maintenance and phytosanitary services, based on different visual protocols being specific with necessary services of a producing vineyards. The lack of periodic laboratory controls, applying protocols referred to certification scheme and vineyards age, these parcels are not guaranteed to serve as mother parcels. These parcels are planed when ATTC has had the status of a centre for producing certified seedlings to supply private nurseries in whole country.

Also, an in vitro lab is also operational at ATTC. The lab is well equipped for producing in vitro plants using virus clean materials from healthy plants. The focus of this laboratory is to produce and propagate stone fruit tree rootstocks, providing a clean phytosanitary status. The problem however is the that they do not have healthy wine plants because of infection problems in the mother orchard. Despite the fact that sanitation is not included in institution objectives, due to the lack of structures and the absence of laboratory capacities to produce healthy plants from in vitro techniques, specialists of ATTC have managed to acclimate two plants of Kallmet and two plants of Vlosh variety.

ATTC has an inventory of grape varieties in Albania. There are more than 147 wine varieties in Albania out of which 57 are autochthon varieties. No wines are yet internationally recognised as autochthonous Albanian varieties. (For a comprehensive list of autochthon varieties, refer to [List of autochthon grape cultivars](#)).

The ATTC has at the institutional limited cooperation with the university sector (Agricultural University in Tirana, Biotechnical Faculty/Institute), which is the national institution responsible for research related to wine processing. The technical cooperation is also limited, and there is a serious need to strengthen this cooperation to ensure that the value chain is intact from grape to table.

³⁰ As of March 2021

The ATTC has an institutional cooperation with the university sector (Agricultural University in Tirana, Biotechnical Faculty/Institute), which is the national institution responsible for research related to wine processing. The technical cooperation is limited but there is a serious need to strengthen this cooperation to ensure that the value chain is intact from grape to table. Some efforts are made to increase the production of grapevine cycle to produce wine promoting indigenous varieties for traditional family needs.

The work of ATTC is demand driven and there are no resources now to develop a more proactive concept or approach. The focus of ATTC is on the agronomic part of the work in the wine value chain, though they are supposed to work on the whole value chain. No work is related to production of wine.

The ATTC work is based on strategic objectives of Albania Government and the annual program is approved from Ministry of Agriculture with the aim to serve farmers and stakeholders in agriculture.

Source: Interview with Vlora ATTC experts and FAO (2014)

Remaining issues

The expertise and services to farmers and other actors in the value chain have been allowed to decline due to:

Lack of strategic direction and management. Analysis by the EU-funded IPESA project³¹ concluded farmers have a great need for modern advice and technologies which currently is unsatisfied. A key reason for unsatisfactory performance is the lack of a soundly based strategic approach. Based on that, the already adopted strategic plan for extension service needs to be implemented (refer to Extension service strategic plan).

Insufficient cooperation of public advisers with farmers and processors. Cooperation between both extension and ATTCs extension staff with farmers and processors is insufficient. They have not managed to address neither the real needs of small farmer nor disseminate the good practices of farmers having introduced advanced technologies. Hence the need to collaborate on applied research & partnerships with industry to strengthen relevance of research and enhance the transfer of new knowledge to end users.

Insufficient consideration of sector challenges and opportunities. Main Sector challenges and opportunities include (i) EU integration and agri-food sector competitiveness, consideration of (ii) Wider rural development, and (iii) Climate change (Climate smart agriculture, IPM). Farmers' main extension needs include increased knowledge to achieve national and EU standards, including animal health/welfare for Good Agricultural Practices (GAP) and Good Agricultural and Environmental Conditions (GAEC), preparation of business plans proving economic viability from investment proposals, and resource efficiency and renewable energy which are currently not currently being provided the extension service.

Disadvantaged age and background structure and lack of professional development. As mentioned earlier, the average age of extensionists is about 54 years, with only 8% (17) under 40 years old. The majority of extension workers are agronomist and zootechnicians and very few are economists. Very few extension workers and ATTC researcher speak foreign languages which a critical problem for following technology and science advancement.

Extension workers overloading. On average, an extension worker has to serve close to 1700 farmer (189 extension workers have to serve more than 320 thousand farms). On the other hand, though the main responsibility of extension workers is knowledge transfer, in reality they are a large portion of advisers' time is on forecasting and gathering farm data for the statistics function of MARD including information on agri-sector performance for publication.

lack of financial resources (budget and finance). The Albanian National Extension Service has potential to greatly improve technological advancement on farms, but its expertise and services have been allowed to decline due to

³¹NIRAS IC (2019). Strategic Action Plan 2020-2021 (draft final) –Albania National Extension Service is the lack of strategic planning and managing for results

lack of financial resources for professional development of advisers, modern information and communication technologies.

Lack of cooperation with local government. Based on the law (90/2012 dated 27.9.2012 “Organization and functioning of public administration), the public institutions can cooperate with each other as well as with the local governance units in compliance with the relevant legislation. Currently, the cooperation of Extension service with agricultural departments at municipal level is limited.

Based on interviews with extension workers, farmers and other stakeholder, the main capacity building needs for extension workers include:

*Training on strategic planning and Results based management*³². Train/coach extension service staff on strategic planning and results-based management; develop a realistic monitoring system in a participative way

Technical knowledge. Training of extension workers on knowledge on plant nutrition and plant protection based on plant nutrition and plant protection protocols; training on national and EU standards related to food safety and quality; Training on technology off farm (diversification) issues. Sustainable farming and resource efficiency and renewable energy.

Farm Management and other management issues. Training on financial literacy (cost, gross margin, profit calculation); training on farm accounting; coaching/knowhow on facilitating vertical cooperation (contract farming) between farmers and buyers; knowledge on farm management; knowledge to assist farmers in the preparation of applications for funding through IPARD measures; Training of extension workers on preparation of business plans proving economic viability from investment proposals; Training on economics of off farm (diversification) issues

Other training topics. Knowledge on establishment of demonstration/model farms for trials and demonstrations to improve usage of available technologies in cooperation with faculties, institutes, NGOs and private entities; knowledge on links between research and farmer’s needs - potential innovation actors and projects -support faster use of innovative solutions; use of ICT in agriculture, also farm diversification.

Training on information, knowledge and skills transfer methods. Knowledge to identify, select, communicate and disseminate to farmers’ useful information on standards and good practices in agriculture; knowledge to methods to motivate farmers; ability to organize field demonstrations; knowledge of communication methods; intensive English language courses for extension workers with basic English abilities to allow them to follow the relevant literature.

Capacity building on problem identification and problem solving. Training to develop ability to determine customer needs; ability to solve farmers’ problems; ability to organize focus group discussions and other activity of problem identification and problem solving.

Possible service providers include Faculty of Agricultural and Environment (AUT) and other institutions delivering technology programmes, Faculty of Economy and Agro-business (AUT), other institutions delivering economics and management programmes; Projects and NGOs and others.

³² NIRAS IC (2019). Strategic Action Plan 2020-2021 (draft final) –Albania National Extension Service is the lack of strategic planning and managing for results

Private service providers

Input suppliers. Input suppliers are normally private companies providing the kinds of inputs farmers use to produce food and feed products. These inputs include fertilisers, seeds and seedlings, machinery and equipment, plant protection and veterinary products, animal feed, finance, etc. Input suppliers often also provide information and advice to farmers about best use of the inputs they sell.

Input suppliers represent a major source of information and advice for farmers. They advise farmers on plant protection and plant nutrition and sometimes conduct visits to farmers' fields. It also happens that input suppliers experiment on behalf of international seed/seedling companies at selected farms (vegetables case)³³. In exceptional cases, (case of almost (quasi) coordinated export sub-channel)³⁴, input suppliers – who are also local consolidators/wholesalers and exporters – together with inputs (seedling 'package') also provide advice on production technology.

Buyers. In the wine sector, the information flow (particularly technology information and advice) from processors to farmer in the wine value chain is a must – grape suitability and quality is a major determinant of wine quality. Therefore, there is a permanent effort from the side of processors to advise grape supplying farmers, particularly in case of wineries producing medium to high quality. That said, according to the interviews, farmers often do not follow processors advice and that lead the latest to integrate vertically – invest in their own wineries.*Private consultants.* A number of private consultants and businesses provide farm advisory services to farmers in Albania, mostly to larger scale operations. It includes advisers educated, trained and with experience from within Albania and abroad, and some based abroad and visiting periodically to provide advisory services (e.g. Italy, France). These consultants usually don not consult small vineyard farmers due to farmers low demand and their lack of willingness to pay for the service. Small farmers are expected to be advised by public extension service.

11 ALIGNING TO THE GREEN DEAL

11.1 EU GREEN DEAL RELEVANCE TO THE SECTOR

The EU Green Deal principles have high relevance to the wine sector, covering a number of areas that might be considered, covering the farm-to-fork principles, waste management, renewable energies biodiversity preservation, for example paying attention to autochthonous grape cultivars.

11.2 EU GREEN DEAL POTENTIAL ACTIONS

The wine sector chains have strong connection with the *farm-to-fork principles*. The adoption of sustainable production methods is of paramount importance, suggesting the diffusion of Integrated Pest Management (IPM). In this regard, vineyard farmers use plant production products (PPP) more than needed in quantity, frequently use them not in the right time, and often use not the right PPP. Extension service in charge of advising farmers on plant protection do not have the needed professional background. The Phyto-sanitary Service in charge of preparing plant protection protocols for most important products in Albanian, including vineyard, have failed to do so. Efforts made by Agricultural University to introduce plant production protocols have also failed. The main service providers regarding plant protection are input dealers who have a conflict of interest – they are trader are therefore interested to sell more. Hence, it is recommended that plant protection protocols are developed for

³³AASF (2018). Greenhouse vegetable sector study

³⁴AASF (2018). Watermelon sector study

vineyard annually and distributed to the extension service. Whether stations (equipped with temperature, moisture, and light sensors) are expected to assist advisers in determining the time of intervention. Initiatives are necessary to improve fertilisation practices in order to avoid soil and water contamination (e.g. nitrate spoilage), which calls once more for a wide adoption of IPM principles among Albanian grape producers. The interviews made do not show high attention to organic wine production, likely conditioned by the difficult of marketing organic wine under the current conditions of the market.

Fostering circular economy also has relevance in the wine sector, considering the large amount of packages (bottles and boxes) used to package the final product. Attention here is to re-use of packaging material in wineries. Mostly Category 3 wineries producing table wine reuse packaging materials, particularly bottles, when they can take the bottles back from the restaurants. Additionally, as a matter-of-fact Roma people collect the bottles and sell them to wineries at a low price. This issue has some social, economic and environmental implications and may be considered. There is therefore wide potential to enhance the environmental performances of the wine sector through initiatives that improve the management of the packages used by the wineries along the distribution chain. The *waste* from pruning operation generates large amounts of biomasses that may be used for agricultural purposes. In the case of Albanian wineries, particularly those having large area of own vineyards (principally these are the wineries producing high quality wine) have plans to invest in special machineries for vineyards, such as machineries that grind and convert the pruning waste into fertilisers. This kind of investment may be appropriate for group of growers, too.

Albania has a great patrimony/endowment in terms of autochthon cultivars, which contribute to preservation of *biodiversity*. Wineries producing quality wine have a special focus on use of autochthon cultivars and several good quality wines are produced using native cultivars. Government has supported the plantation of autochthon cultivars in the past, but this policy has stopped. On the contrary, the support of autochthon vineyard plantations included in national support scheme is important to stimulate the protection of grape biodiversity and must be considered with preference by IPARD programme.

Renewable energy is a principle of the EU Green Deal to which Albania, due to the national conditions, may contribute. However, according to their opinion, the plans expressed during the interviews, the wineries are not paying much attention to it, thus not much interest in investments in this sphere is expected.

12 OUTCOME

12.1 KEY FINDINGS AND CONCLUSIONS FROM THE SECTOR ANALYSIS RELATED TO IPARD III PROGRAM

The wine sector of Albania shows potential for development, particularly related to the growth of the domestic market. The growth is expected to happen through different market segments, from budget wines to quality wines. This latter segment seems to be the most promising one. However, several shortfalls at production and processing levels limit the possibility of the domestic sector to catch existing opportunities and combat the threats that hamper the sector improvement. Selected integrated wineries show good capacity to grow and address the global market challenges, although improvements in quality and marketing are necessary. Otherwise, the majority of small wineries and primary producers are not properly interconnected with markets and supplies, lacking marketing, technology, and management skills. There is an obvious concentration of wineries in certain area (Durrës, Vlorë, Berat, Elbasan, Shkoder) which is quite promising for the development of wine clusters in Albania. Support to wineries in above potential cluster areas may be considered as a matter of priority. Particularly in the medium-high quality segment the domestic wineries may find floor for improvement and increase the market share, through satisfaction of the growing demand and substituting imports.

12.2 PRIORITY INVESTMENTS IN PRIMARY PRODUCTION

Types of investments

The following investments should be supported under IPARD at the level of agricultural holdings:

- **Investments to improve the production capacity and efficiency**
 - Investments in planting or replanting of vineyards.
 - Irrigation systems: equipment, tools and machines to improve irrigation and fertigation, drip irrigation and irrigation wells.
 - Tractors and spraying machines.
 - Special machineries for vineyard.
- **Investments to improve the quality of production**
 - Anti-hail systems, particularly for large farms.
 - Shadowing nets in vineyards in areas where harvesting is being anticipated by climate change effects.
- **Environment-related investments**
 - Integrated Production Management packages including meteorological stations, tools and equipment for IPM (for farmers' groups), kits for soil analysis.
 - Machineries for pruning waste processing (for integrated wineries, growers' groups).

Table 12-1: Eligible investments and relevant impact

Category of eligible investment	Impact on
Equipment, tools, machines to improve irrigation and fertigation and optimise use of water resources, including tertiary irrigation works, excluding opening of new wells.	Competitiveness (productivity) Environment (reduction of salinization)
Farm machinery sheds and specialized machinery, tools and equipment for harvesting, pest control, distribution of fertilisers and transport of products, including hand-operated and machine-operated equipment and general-purpose vehicles for agriculture production and marketing.	Competitiveness (productivity) Food safety
Investments in planting or replanting of vineyards, including cost of propagation material, works carried out by a third party for soil preparation, planting and replanting, with the exception of soil fertilizing	Competitiveness (productivity)
Harvesting and post-harvesting tools, equipment and premises, including plastic re-usable crates, pre-cooling and cooling units and storage facilities, temporary, conditioned and non-conditioned, field cleaning/sorting equipment and tools and warehouse-based cleaning/sorting/grading/packing lines and other equipment for fresh produce conditioning, act and compatible with improvement of compliance with safety and quality standards.	Food quality (compliance with quality standards) Competitiveness (lower losses)
Specialised transport means, including refrigerated trucks having maximum 25 m3 capacity, tractor trailers and other vehicles used for harvesting, post-harvesting and marketing, excluding cars and other vehicles not specialised in transport of goods.	Competitiveness (lower losses) Food quality
Integrated Pest Management tools and equipment, including agro-meteorological stations, GPS systems, management software, precision viticulture solutions.	Food quality
Tools to regulate the climate change effects, such as anti-hail nets, shadowing	Food quality

Category of eligible investment	Impact on
nets and other protective tools.	

Source: adopted and updated based on FAO (2014)

Proposed eligibility criteria and size thresholds

Minimum criteria for interventions

Minimum vineyard size at the beginning of investment

At the beginning of investment, it is required to prove farm viability. Given that lack of reliable data at farm level, existing vineyard size has been opted for as a proxy for farm viability. Based on heuristic, 0.50 ha of vineyard is considered as a proxy for farm viability. Farm that has planted 0.50 ha of vineyard are commercial farms. Considering average farm size in Albania of 1.20 ha, its assumed that a farm which has invested in commercial grape production makes good use of the remain land and therefore is considered to viable at the beginning of investment.

Minimum vineyard size at the end of investment

In order to support changes towards to economic viable farms, it is recommended to support farms with minimum of 1 ha wine grape vineyard at the end of investment. Table 12-2, below summarizes information on the way to calculate viable vineyard size at the end of investment.

Table 12-2: Viable vineyard size

Indicators	Thresholds
Minimum wage	30,000 ALL
Livelihood of 2 persons: (12 months*2 persons*minimum wage)	720,000 ALL
Gross margin per ha (refer to Table 2-5 : Gross margin calculation)	798,900 ALL
Viable (eligible) vineyard area (ha)	0.90

Source: Elaborated by authors

Preferential criteria

- Farmers having sustainable relationships with wineries (supported by documentation from wine producers).
- Vineyards in area with high concentrations of wineries³⁵.
- Vineyards in quality wine clusters³⁶.
- Groups of farmers are advantaged over individual farmers.
- Vineyards related to processing of wine and agri-tourism.
- Vineyards of autochthonous varieties.

Size of projects

The maximum and minimum limits of total value of eligible investments per project are:

³⁵ Reference to winery cluster distribution by qark and municipality.

³⁶ Reference to wine clusters distribution by qark and municipality.

- Minimum € 5,000
- Maximum € 200,000

Five thousand Euro represent the budget for 0.50 ha vineyard³⁷, considering that the applicant will start from 0.50 ha vineyard (minimum criterion at the time of application)

Absorption capacity

Table 12-3 summarises the absorption capacity at farm level. We assume that vineyard area will increase by 115.00 ha per year based on the current trend (refer to Figure 6); Based on minimum (10 thousand Euro) and maximum investment budget (30 thousand Euro³⁸) per ha, we assume an average budget of 20 thousand Euro per ha; further we assume that applying farmers will represent 1/6 (16%) of area invested or 115.00 ha (16.6% of 690 ha – 115 ha per year for 6 years). Based on these assumptions, investment for then while programming period 2.3 million Euro, Table 12-3.

Table 12-3: Absorption capacity at farm level

Indicators		Assumptions and absorption
Future planted area for 4 years	ha	690.00
Budget	Min (euro per ha)	10,000
	Max (euro per ha)	30,000
Assumptions	Average investment (euro)	20,000
	1/6 of area for 6 years (ha)	115.00
	Absorption for four years (euro)	2,300,000 ³⁹
Number of farmers over 0.5 ha (farmers)		3,217

Source: Authors

12.3 PRIORITY INVESTMENTS IN PROCESSING

Types of investments

Investment needs for wine producing companies varies – in some cases, vineyard capacity is an important need (to exploit non-utilized capacity); in other cases, there is a need to increase wine processing capacity; and still there are cases where both increase in vineyard and wine producing capacities are needed and some companies plan to invest in both. Quality infrastructure and wine tourism related infrastructure may also be considered for wineries producing high quality wine.

The following investments should be considered for support under IPARDIII:

- **Investments to improve the quality of processing**
 - Processing lines (fermenters, tankers, grape crushing and pressing equipment, filtering, bottling lines and labelling equipment) – complete technology or partial technology (technology completion).
 - Quality improvement infrastructure (cellars, internal/integrated laboratory; wood barrels) and investments propaedeutic to quality certifications.
 - Quality control lines and devices.
- **Investments to increase the production capacity**

³⁷Project budget: 10,000 Euro per ha vineyard, including supporting system and drip irrigation system (field interviews)

³⁸Maximum project of 1ha financed by IPARD II

³⁹1.6 million for the proceeding programming period.

- Vineyard plantation.
- Winery facility construction/enlargement/renovation.
- **Investments to improve marketing and sales**
 - Physical investments propaedeutic to marketing and promotion (showrooms, tasting rooms, promotional facilities).
 - Tourism facilities, including testing rooms and accommodation.

Proposed eligibility criteria and size thresholds

The potential eligible beneficiaries are:

- Registered wineries.
- All physical and juridical persons meeting stated criteria, profitability and viability criteria.

Size of projects

The maximum and minimum limits of total value of eligible investments per project are:

- Minimum € 20,000⁴⁰
- Maximum € 1,000,000

The largest investment supported during proceeding programming period amounts to 1.8 million Euro. But this is considered an outlier. All the rest of investment supported are below 500 thousand Euro. On the other hand, field interviews support that the largest planned investment is 1 million Euro.

The smaller the investment (closer to the minimum threshold), the more relevant should become the inclusion of premiality related to agro-tourism and quality/geographical indication initiatives.

Preferential criteria

- Vertically integrated wineries (wineries having their own vineyard and having inested in retail – restaurants, guesthouses, etc.)
- Wineries having sustainable relationships with farmers (supported by documentation from wine producers).
- Investments in quality wine clusters and areas with emerging winery agglomerations⁴¹.
- Groups of farmers.
- Investments related to agro-tourism.

Absorption capacity

Almost all (formal) wineries interviewed have plans to invest. The average occurred investment amount 200,000 Euro (ranging from 8 thousand to 750 thousand Euro) and the average planned investment budget amounts to 350 thousand Euro (ranging from 70 thousand Euro to 1 million Euro). On the other hand, average supported by public funds is 234 thousand Euro (if one outlier is excluded).

We assume that the average investment project budget for upcoming applications will be somewhere in between – based on occurred and planed project investment we assume that the average budget per application to be around 250 thousand Euro. Further we assume that around ¼ of formal companies, or 20 companies (which is twice as much as the number or wineries having benefited from IPARD II) will apply for support during the whole programming period. Based on these assumptions, the absorption capacity from the wineries is expected to be

⁴⁰ 20 thousand Euro for 10 Tons invested/increased capacity (information from the industry; field interviews).

⁴¹ Reference to wine clusters distribution by qark and municipality.

around 5 million Euro, or an increase of 27% compared to contracted budget for previous programming period of 3.93 million Euro.

Additional criteria for investment support both at farm and at processing level.

Two bonus criteria may be considered when selecting projects to support: (ii) design criteria to avoid deadweight⁴². This may be done by targeting of recipients, e.g. by wealth/size, prioritizing of economic unattractive types of projects, for example focussing on environmental protection, and prioritising projects with a ‘financing gap’. The dead weight loss risk is reduced by focusing of the Programme toward sectors and territories with structural disadvantages resulting in under investment and slow or negative growth rates. Thus, programme resources are focused on the investments that would not be implemented without public support.

12.4 RECOMMENDATIONS FOR COMPLEMENTARY INTERVENTIONS

Based on SWOT analysis ([SWOT analysis and potential needs of the sector](#)), the following initiatives may be considered at the wine sector level, farming and processing level.

Initiatives to improve the *wine sector level*:

- Formalize the planting material sector, improve inspection to make sure that only certified seedlings are distributed, obtain healthy autochthon grape cultivars, and develop and implement complete protocols of planting material certification.
- Develop and implement complete protocols for plant protection, plant nutrition and production technology.
- Restructuring of public extension service and Vlore ATTC to better serve the vineyard farmers.
- National system of objective advice, for example, in weather stations and prognosis and signaling centers managed by public extension system.
- Consider the emerging agglomerations and clusters for advanced spatial planning of initiatives and use of resources.
- Stimulate the improvements of quality along the chain, including grape and wine safety, adoption of internationally recognised quality standards as well as participation of the wine chains in quality schemes (PDO, PGI).
- Conduct a study on domestic cultivar regionalization through a partnership between MARD, wine operators and Agricultural University of Tirana.
- Consider the need of diversified development of the sector, thus giving attention to small wineries too, including those at farm level and the need to assist wineries with limited technology staff and expertise.
- Stimulate association development and coordination within the sector and along the chains. There is the right time to stimulate and support setup up the interbranch organization in the wine sector.
- Establishment of an Advisory Committee / Council for viticulture and wine as proposed by wine operators

Initiatives to improve the wine sector at the *farm/vineyard level* may include:

⁴²Deadweight (by the European Court of Auditors): a situation where a subsidised operation would have been wholly or partly undertaken even without public aid.

- Develop packages to address farmers needs for technology know how (importance of clean planting material, selection of cultivars, production technologies, plant protection and plant nutrition, preharvest and post-harvest).
- Develop capacity building packages in quality and safety standards, Pre-harvest, harvest and post-harvest of grape analysis, including specific packages to address large, advanced farmers needs for product quality and safety.
- Use current working business relationship between farmers and wineries to improve understanding of farmers on the need for a long term, sustainable, relationship with wineries - develop vertical cooperation platforms.
- Support farmers projects for organic production.
- Improvement of financial literacy - cost calculation and profitability analysis for selected interested farmers, developing specific packages to address large, advanced farmers' needs for cost calculation, financial literacy and business plan preparation.
- Support programmes to address knowledge limitation on sustainable farming, and climate change.
- Support development of marketing schemes, branding, communication.

Initiatives to improve the wine sector at *the winery level* may include:

- Stimulation of production capacity, particularly in wineries willing to integrate their business and improve business relationships with farmers.
- Improvement of synergy of private and public institutions in areas with emerging winery agglomerations, with investment both at farm and processing in these areas, facilitate the relations between farmers and processors and other stakeholders, conducting applied research both at farm and processing in these areas.
- Improvement of marketing, addressing literacy to understand competition and determine relationships with suppliers, building the capacity of the marketing, supporting promotion of quality wine, and developing marketing of wineries and tourism facilities in wineries, including testing rooms, restaurants, and accommodation.
- National marketing/ promotion campaign of domestic high-quality wine in partnership with wine producers or their associations.
- Stimulation of applied research & partnerships with industry to strengthen relevance of research and enhance the transfer of new knowledge to end users.
- Improve of quality of wine making, with integrated quality infrastructure – laboratory and adoption of quality standards.
- Improve law enforcement, by adopting the Law on Vineyard and Wine, completing secondary/implementation regulations, improving (currently) informal winery registration, and adopting wine cadaster, capitalizing on the existing vineyard and wine cadaster to establish a full-fledged vineyard and wine register which is consisted of vineyard cadaster and updated data on grape and wine potential. All the main actors in the sector (vineyard farmers, harvesters, producers, processors, and bottlers) should be registered in the register and provide data for keeping up to date.

REFERENCES

- AASF (2019). Greenhouse vegetable sector study. Available online at <https://aasf.com.al/wp-content/uploads/2020/04/6GreenHousecover-EN.pdf>
- AASF (2019). Udhezues Praktik mbi Kartat Teknologjike ne Bujqesi (Practical Guide on Technological Cards in Agriculture). Available online at <https://aasf.com.al/wp-content/uploads/2020/05/KartatTeknologjikeWEB.pdf>
- AASF (2019). Watermelon sector study. Available online at <https://aasf.com.al/wp-content/uploads/2020/04/9atermelon-EN.pdf>
- AASF (2019). Wine sector study. Available online at <https://aasf.com.al/wp-content/uploads/2020/04/2Winecover-EN.pdf>
- ARDA (2020). Government support for vineyard plantation between 2007 and 2019. Administrative data on request
- ARDA ((2020). Data IPARD II disbursement for measure 2 and 3 Administrative data on request
- DSA (2019). Skills Needs Review Study and drafting a sub-sector Skills Strategy for the wine-processing industry in Albania.
- MEFA (2020). Albania 12 subcommittee meeting agriculture and fisheries.
- EUROSTAT (2020). Albania's wine trade flows total and by country partners. Access EUROSTAT database online at: <https://ec.europa.eu/eurostat/web/main/data/database>
- FAO/EU (2014). Vineyards and Wine Value Chain Study. Prepared under the The Project "Preparation of Inter- sectorial strategy for agriculture and rural development in Albania", funded by the European Union and facilitated by the Food and Agriculture Organization of the UN through the project GCP/ALB/014/EC IPA 2009
- Fed Invest (2018). Unpublished database
- Fushe-Kruja ATTC (2021). Vineyard census data for the period 2018-2019
- GDIP (2020). Annual Report 2019. Available online at <http://dppi.gov.al/raportivjetor/>
- IDRA (2020). Unpublished database
- Imami, D., Skreli, E., Zhllima, E., Cela, A., & Sokoli, O. (2015). Consumer preferences for typical local products in Albania. *Economia agro-alimentare*.
- INSTAT (2020). Vineyards under organic certification data. Retrieved from <http://instat.gov.al/>
- ITC (2020). Trade map. Available online at <https://www.trademap.org>
- MARD (2020). MARD (2020), Administrative data on request
- MARD (2020). Regular Impact Assessment (RIA) for the draft law on Vineyard and Wine
- MEFA (2021). National Plan of European Integration 2021-2023. Version 8.01.2021. Available on line at <https://www.konsultimipublik.gov.al/Konsultime/Detaje/319>
- NIRAS IC (2019). Strategic Action Plan 2020-2021 (draft final) – Albania National Extension Service. Prepared in the framework of the project: "Improvement of the performance and quality of the public extension service in the livestock sector. Europeaid/136437/IH/SER/AL"
- NIRAS IC (2019). Strategic Action Plan 2020-2021 (draft final) –Albania National Extension Service is the lack of strategic planning and managing for results
- Vlora ATTC (2014). List of autochthon grape cultivars. Data provided on request
- WHO (2021). Wine consumption per capita. Extracted from <https://www.nationmaster.com/nmx/ ranking/wine-consumption-per-capita>. Verified at https://gateway.euro.who.int/en/indicators/hfa_428-3052-wine-consumed-in-pure-alcohol-litres-per-capita-age-15plus/. Retrieved January 17th 2021
- WHO (2021). Wine per capita consumption for population above 15 years old – Albanian, top ten countries and western Balkan countries. Extracted from: <https://www.nationmaster.com/nmx/ ranking/wine-consumption-per-capita>

Zhllima, E., Chan-Halbrecht, C., Zhang, Q., Imami, D., Long, R., Leonetti, L., & Canavari, M. (2012). Latent class analysis of consumer preferences for wine in Tirana, Albania. *Journal of international food & agribusiness marketing*, 24(4), 321-338.

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

Legal sources

1. Draft Law "On Vineyards and Wine"
2. Law No /2012, "On Excises in the Republic of Albania"
3. Law No 8443, date 21.1.1999 "On Vineyard, Wine, and other products produced from grape"
4. Commission Regulation (EC) No 1881/2006 of 19 December 2006
5. Regulation (EU) No. 1169/2011
6. Council Directive 91/676/EEC
7. Directive 2009/147/EC - Directive on the conservation of wild birds
8. Council Directive 92/43/EEC - Directive on the conservation of natural habitats and of wild fauna and flora
9. Decision 147/13.03.2018 of Council of Ministers on the establishment, organization and functioning of the Regional Agricultural Extension Agencies
10. Law no.152/2013 "On Civil Servants"
1. Law no. 90/2012 dated 27.9.2012 "Organization and functioning of public administration"
2. Decision of Councils of Ministers 1189/2009: "On the rules and procedures for preparing and implementing the national program for environment monitoring"
3. Prime Minister Order Number 87, date 13.6.2018 – structure of extension service

13 ANNEXES

13.1 LIST OF INTERVIEWED STAKEHOLDERS

Name	Company/Institution	Position	Municipality
1. Rigers Kacorri	Arbery Winery	Winery oenologist, farmer	Mirdita
2. Levent Nurellari	Nurellari Winery	Winery oenologist, farmer	Berat
3. Petrit Brahimi	Argjiro Winery	Winery manager, farmer, agronomist	Gjirokaster
4. Gazmend Shehu	Vila Shehu Winery	Winery manager, head of family winery association	Tirane
5. Jurgen Pashuku	Zadrima Winery	Winery representative, economist, farmer	Vau i Dejes
6. Ormela Lika	Medaur Winery	Company representative, economist	M. e Madhe
7. Jorgji Bello	Bello Winery	Winery manager, farmer	Durres
8. Evalt Domi	Duka Winery	Chemical engineer, PR Representation	Durres
9. Robert Dama	Dama Winery	Winery manager	Permet
10. Selami Sinani	Isak winery	Winery manager, farmer	Sarande
11. Aleksander Palushi	Winery	Winery manager, farmer	Lezhe
12. Nexhmi Aliaj	EnoAlba	Manager	Tirana
13. Drini Skreli	Vineyard farmer	Farmers	Gjirokaster
14. Festim Shytaj	MARD	Head of Extension Service sector	Tirana
15. Adhurim Lazaj	Vlora ATTC	Vineyard expert	Vlora
16. Limbro Dhima	Vlora ATTC	Vineyard expert	Vlora
17. Xhek Mukaj	Vlora ATTC	Fruit tree expert	Vlora
18. Ramo Merkohila	Vlora ATTC	Fruit tree expert	Vlora
19. Ilir Salillari	Fushe-Kruja ATTC	ATTC director, Wine Cadastre expert	Fushe-Kruja
20. Shpetim Tafaj	Fushe-Kruja ATTC	Wine Cadastre expert	Fushe-Kruja
21. Vullnet Gjolla	MARD	Head of AREB	Korce
22. Adriatik Serani	MARD	Extension officer	Berat
23. Extentsion officer	MARD	Extension officer	Lezhe

13.2 REGIONAL DISTRIBUTION OF GRAPE PRODUCTION

Table 13-1: Regional distribution of grape production

Prefectures	Vineyard grape (Ton)	% to total vineyard grape	Grape from pergola (Ton)	Total grape
Fier	34,831	31%	9,617	44,449
Elbasan	16,480	14%	10,642	27,122
Durres	11,096	10%	3,856	14,952
Tirane	9,513	8%	7,360	16,873
Vlore	9,167	8%	11,334	20,501
Berat	8,710	8%	4,131	12,841
Korce	6,683	6%	4,248	10,930
Gjirokaster	5,580	5%	5,656	11,236
Lezhe	4,557	4%	3,521	8,078
Shkoder	4,400	4%	7,600	12,000
Diber	1,970	2%	4,058	6,028
Kukes	866	1%	4,027	4,893
Total	113,854	100%	76,050	189,904

Sources (MARD, 2020)

13.3 LIST OF AUTOCHTHON GRAPE CULTIVARS

Table 13-2: Autochthon grape cultivars

No.	Cultivar	Year of introduction at	Color	Use
1	Dursak i bardhe	1999	White	Wine
2	Qelibar i hershem	1999	White	Table
3	Kotek e bardhe	1999	White	Wine
4	Sinanbel	1999	White	Wine
5	Rrush Burreli	1999	White	Wine
6	Sinanbel Nr.2	1999	White	Wine
7	Tajge ezeze	1999	Black	Table
8	Color Hf.	1999	Black	Wine
9	Rrush vere	1999	Black	Wine
10	Ibardhi cipeforte	1999	White	Table
11	Gomaresh	1999	Black	Table
12	Jediveren	1999	Black	Table
14	Irrumbull. i vonet	1999	Black	Wine
14	Krkie	1999	Black	Wine
15	Debin e zeze	1999	Black	Wine
16	Kosinjot	1999	Black	Wine
17	Kotek ezeze	1999	Black	Wine
18	Tip merlot	1999	Black	Wine
19	Ibardhek.kendez	1999	White	Table
20	Pulez	1999	White	Wine
21	Rrush Zhepove	1999	White	Wine
22	Rrush i Hodos	1999	White	Wine
23	Dimerak	1999	Black	Table

24	Dimerakes	1999	White	Table
25	Tip korithi	1999	White	Table
26	Rrush mesupe	1999	Black	Wine
27	Kazarka	1999	Black	Wine
28	Tajge e Liçit	1999	Black	Table
29	Greza	1999	Black	Wine
30	Kallmet	1999	Black	Wine
31	Meresnik	1999	White	Wine
32	Serin e bardhe	1999	White	Wine
33	DebinLeskoviku	1999	White	Wine
34	Muzhaku	1999	White	Table
35	Moskat roze	1999	Rose	Table
36	Roze	1999	Rose	Wine
37	Rrush kishenr.2	1999	Black	Wine
38	Laraçiku	1999	Black	Wine
39	Tajge zeTirane	1999	Black	Table
40	Razaki e kuqe	1999	Red	Table
41	Shesh i bardhe	1999	White	Wine
42	Debin Permeti	1999	White	Wine
43	Ibardhi cipeholle	1999	White	Table
44	Kallmet (klon)	1999	Black	Wine
45	Tajge roze	1999	Red	Table
46	Shesh i zi	1999	Black	Wine
47	Vlosh	1999	Black	Wine
48	Tajge eShefqetit	1999	Red	Table
49	Tajge e bardhe	1999	White	Table
50	Korrith i bardhe	1999	White	Table
51	Çaush i verdhe	1999	White	Table
52	Dervenik	2006	White	Wine
53	Rrush kungulli	2006	White	Table
54	Volluna	2006	White	Table
55	Vallar i bardhe	2006	White	Table
56	Serin i zi	2006	Black	Wine
57	Gemeza	2006	Black	Wine

Source: Vlora ATTC (2014)

13.4 EXTENSION SERVICE STRATEGIC PLAN

The Overall Objective of the Strategic Action Plan is to achieve strengthened capacity of the Albanian National Extension Service for modernised service delivery which addresses the knowledge-related needs of agriculture and rural entrepreneurs as Albania progresses towards membership of the European Union.

More specifically, four main goals and related specific objectives are as follows:

Goal 1. Enhanced farm viability and competitiveness of agriculture, progressively aligned with EU standards.

Specific Objectives

- 1.1 To acquire and disseminate knowledge and technologies to the farming industry through targeted best practice advisory methods to enable farmers to exploit opportunities for development and maximise the efficiency, profitability and sustainability of their enterprises

- 1.2 To collaborate on applied research & partnerships with industry to strengthen relevance of research and enhance the transfer of new knowledge to end users
- 1.3 To develop the skills and knowledge base of farmers to ensure measurable impact on profitability, competitiveness, exports and employment

Goal 2: Sustainable farming and the environment.

Specific Objectives

- 2.1. To contribute to independent science-based research informing government policy and sustainable production practices
- 2.2. To improve the understanding of farmers on the interaction between agriculture, the environment and sustainable production, and their capacity to manage soil nutrients and chemical usage on farms in a way that reduces environmental impact
- 2.3. To provide independent best practice advice focused on sustainable agricultural production practices and climate change

Goal 3: A diversified rural economy, improving the quality of life in rural areas.

Specific Objectives

- 3.1. Improve stakeholders' market knowledge & practical skills to enable them to make better informed decisions and exploit income-generating opportunities on- and off-farm
- 3.2. Provide best practice advice and tools to support stakeholders in making decisions that enable their businesses to be more effective

Goal 4. Enhanced service capability and value for money delivered.

Specific Objectives

- 4.1. Maintain organisational reform in line with an evolving legal framework
- 4.2. Strengthen monitoring and evaluation processes within ANES
- 4.3. Ensure ANES adheres to 'best practice' risk assessment and management practices and operates within its budgets, that income and expenditure are optimised and appropriately authorised and that financial policies and procedures are up-to-date and implemented correctly
- 4.4. Manage ANES's land, buildings, equipment, hardware and communications infrastructure and other assets appropriately and maintain them fit-for-purpose
- 4.5. Optimise ANES's procurement practices to ensure best value for procurement of goods and services
- 4.6. Facilitate high staff engagement and recruit, develop and retain the best talent possible while complying with public sector regulations
- 4.7. Enhance staff occupational health and safety

13.5 PUBLIC VOCATIONAL SCHOOLS

Table 13-3: Public vocational schools offering tourism and related directions

Region	School	Direction
Durrës	1. Agrobusiness school of Golem	Agriculture Veterinary
	2. Hysen Cela	Food processing Tourism & Hospitality
Tirana	3. Hotel-Tourism School	Food processing Tourism & Hospitality
	4. Kamza Multifunctional Centre	Agriculture Tourism & Hospitality
Shkoder	5. NdreMjeda	Food processing
		Agriculture
		Veterinary

	6. Hamdi Bushati	Tourism & Hospitality
	7. Kole Margjini	Forestry
Diber	8. NazmiRushiti	Food processing
Lezhe	9. KolinGjoka	Food processing
		Tourism & Hospitality
Elbasan	10. MihalShahini	Agriculture
		Veterinary
	11. Salih Ceka	Tourism & Hospitality
Berat	12. Kristo Isak	Tourism & Hospitality
		Food processing
		Agriculture
Korce	13. Irakli Terova	Agriculture
		Veterinary
	14. IsufGjata	Tourism & Hospitality
Pogradec	15. EnverQiraxhi	Tourism & Hospitality
		Agriculture
Fier	16. RakipKryeziu	Agriculture
		Veterinary
		Food processing
Vlore	17. Tregtare	Tourism & Hospitality
Sarande	18. Antoni Athanas	Tourism & Hospitality

Source: MFE statistics (2020).