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ALBANIA

Quality and standards for sustainable trade of Fruits and Vegetables

VALUE CHAIN STUDY

FINAL REPORT

Analysis of the value chain of Fruits and Vegetables in Albania with a focus on quality, environmental, social and sustainable requirements and its compliance infrastructure

Part of the:

UNIDO PROJECT Global Quality and Standards Programme Albania: Strengthening quality and standards compliance capacity for selected value chains

Funded by Switzerland through its State Secretariat for Economic Affairs (SECO)

Implemented by the United Nations Industrial Development Organization (UNIDO)

EXECUTIVE SUMMARY

This report presents the results of the fruits and vegetable value chain assessment conducted within the framework of the "Value chain analysis of aromatic and medical plants, fruits and vegetables in Albania" assignment, mandated by UNIDO as part of the Global Quality and Standards Programme (GQSP) which is a global programme supported by Switzerland through its State Secretariat for Economic Affairs (SECO). A twin report has been produced for Medicinal and Aromatic Plants (MAPs).

The purpose of the GQSP in Albania is to sustainably enhance the market access of SMEs in the MAPs and F&V value chains through strengthening quality and standards compliance capacity and placing the focus on quality and compliance infrastructure and economic, social and sustainability requirements.

The study was conducted between September 2022 and April 2023 through extensive field research and literature review, taking into consideration also similar studies performed in other countries within GQSP framework.

Fruit and vegetables (F&V) primary production is one of the main and most competitive agri-food sectors in Albania. It has been characterized by significant production and export growth over the past decade. The leading products are tomatoes, peppers, cucumbers and gherkins, strawberries, melons and watermelons – greenhouse production dominates the first four products, and it is also common for melons and watermelons.

Increasing focus on intensive cultivation in protected environment led to an increased and often excessive or inappropriate use of agricultural inputs (fertilizers, PPP, water). Production activities are often poorly planned, managed and controlled: basic conditions in most cases are not controlled (soil quality, fertility, risk of salinization, etc.), use of inputs is not carefully measured and their quality not sufficiently ensured, with consequent impacts on quantity, quality and safety of the production. Scarce culture for quality and consequently low compliance with standards results in lower quality and prices (profitability) of products.

Despite the potential and rising export trends to EU markets, regional/Western Balkan nations continue to be important destination markets since EU (especially richer/northern EU countries) markets are demanding in terms of criteria. Additionally, laws are getting harsher and stricter, notably in the EU market. The much larger Western Balkans markets are also increasingly aligning their laws with those of EU nations.

Importers are increasingly demanding additional requirements, leading to the adoption of standards and certifications. In F&V international trades, GAP certification is almost universally required, while European and global markets demand certified adoption of food quality and safety standards. Demand for certified sustainability schemes is also increasing. Pressure for compliance with marketing standards, such as UNECE or EU, is increasing, leading to price reductions or exclusion from human consumption of products not meeting relevant standards.

The main recommendations are grouped into the three following key areas:

1. Enabling environment and policy framework, mainly focused on the need to have a fine-tuned, coherent National Quality Policy (NQP) as a basic government instrument for establishing and overseeing the QIS.

2. Quality Infrastructure, with a focus on the improvement of the capacities related to certification, (GDA and TIC) testing and inspection (laboratories but also other state inspection institutions). Recommendations on other key QIS institutions are elaborated in the main sections.

3. Private sector compliance through the engagement of F&V value chain operators and their associations in the development and management of the Quality Infrastructure and fostering a culture of quality along the entire value chain, as well as consumers, through capacity building and awareness raising. Outlined below are the key challenges and issues concerning QIS, specifically with a focus on F&V. Additionally, included are recommendations on how these challenges can be addressed by UNIDO and other stakeholders/donors.

QIS GAP: *The National Quality Policy (NQP) serves as the fundamental governmental instrument for establishing and supervising the QIS. There is a need to ensure fine-tuning and compliance, as well as establish a competent QIS coordinating body which should serve as a technical secretariat to formulate and support the implementation of the NQP.*

Recommended action: Support the fine-tuning, compliance and coordination related to the National Quality Policy.

QIS gap: *There is limited awareness among F & V operators on the role and importance of QI institutions. Lack of trust in local service providers such as laboratories (as also mentioned below) is partially caused by a lack of awareness about the role of QI institutions, such as GDA. The involvement of sector stakeholders is limited or non-existent. For example, GDS Technical committees do not include stakeholders/experts from the F & V sector. Moreover, GDM has a limited scope of services relevant to the F & V sector, and its legal base is only partially aligned with EU regulations.*

Recommended Action: Increase awareness among *F & V* sector stakeholders about QI institutions. Assist GDS in increasing the engagement of stakeholders from the F &V sector within the technical committees, so as to enable F & V operators to actively participate in the process of drafting, approving and adopting Albanian standards where relevant; provide support to both GDS and GDM in capacity building related to legislative alignment, implementation of the existing legislation, internationalization, accreditation and better catering to the needs of the F & V sector (translating standards, preparing guidelines, and creating manuals on legal requirements and measures).

QIS gap: *There is a limited use of services rendered by local laboratories among value chain stakeholders and a lack of trust in some local laboratories, which can be partially attributed to capacity deficiencies and also the accreditation process. On the other hand, there is a lack of locally accredited certification bodies for some types of certifications (most notably GlobalGAP). The lack of locally accredited operators increases the cost/prices of services and reduces monitoring.*

Recommended action: GDA capacity building, focused on laboratory testing service providers and TIC/ certification bodies.

QIS gap: *Testing capacities in Albania fall short of the needs, due to the inadequate number and accessibility of certified laboratories, a limited range of accredited tests/analyses, high service costs and a poor reputation. Another issue arises from inadequate sampling for the analyses. Not all major stakeholders in the value chain possess in-house (mini)laboratories, and among those who do, there are deficiencies in terms of equipment and human resource capacities. In addition to the support through capacity building for the GDA (as highlighted above), direct support to laboratory operators to enhance their capacities is crucial.*

Recommended Action: Support the increase and improvement of laboratory testing services. Strong cooperation with FSVI, leading private laboratories and Albanian certification bodies/TIC.

QIS gap: *Local consumers lack awareness about safety and quality standards. Moreover, most farmers lack awareness about GACP / food safety and plant health standards. On the other hand, weak value chain coordination leads to a lack of traceability, while there is an increasing demand (both mandatory and voluntary) in export markets.*

Recommended Action: Improve culture of quality along the entire value chain and among consumers. Promote and foster GAP application; draft and implement new protocols to address evolving production difficulties.

The main QI-related actions that can foster a more proactive approach among value chain operators towards improved environmental (with focus on climate change) and social (gender sensitive) responsibility are:

» Promote gender-wise awareness and training (A&T) programmes to rural women to introduce new and more sustainable agriculture practices. Rural women are more open to change than their male counterparts, who may prefer traditional practices. There are very few standards that focus specifically on gender indicators. Nevertheless, a deeper understanding of the connection between gender empowerment and QI is necessary.

» Adaptation measures for climate change and global warming. ***Climate change is having a detrimental impact on production, affecting both the volumes and the quality/standards.*** The challenges identified underscore the necessity for a coordinated approach to climate change adaptation and capacity-building to raise awareness among experts on the issue. Extension programming components and A&T programmes to introduce climate change adaptation or mitigation practices, in preparation for relevant certification. There are several natural resource-related standards and additional standards for environmentally sustainable practices. Conducting studies on the implications of climate change is essential, encompassing an examination of current vulnerabilities, weaknesses, and risks. This includes assessing the awareness and existing capacities of value chain actors regarding sustainability considerations and climate impact (with a specific focus on quality and standards).

Additional support can be channelled towards enhancing progress in these domains through a collaborative effort involving stakeholders and donors. This support can encompass technical assistance, awareness-raising, communication, and training activities specifically related to QI, which, among other benefits, can facilitate the identification of available resources for its implementation among the existing national and international financial facilities.

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The preparation of the Value Chain Analysis for the Fruits and Vegetable (F&V) sector in Albania has been supported by the Global Quality and Standards Programme (GQSP) funded by the Swiss State Secretariat for Economic Affairs (SECO) and implemented by the United Nations Industrial Development Organization (UNIDO) in coordination with the Ministry of Agriculture and Rural Development (MoARD) and the Ministry of Finance and Economy (MoFE) of Albania. The development of this Analysis has benefitted greatly from the valuable views, inputs and constructive comments received in interviews, meetings and workshops from various public and private stakeholders involved in the F&V sector in Quality Infrastructure (QI) development in Albania, particularly the General Directorate of Standardization (GDS), the General Directorate of Metrology and the General Directorate of Accreditation.

The Value Chain Analysis has been prepared with the overarching guidance of the UNIDO project team and has built on on the work of the Development Solutions Associates (DSA). The report was drafted by Luciano Leonetti, Edvin Zhllima and Drini Imami. Special

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Disclaimer

1 INTRODUCTION

Albania is currently in the process of European Union (EU) integration and has actively participated in trade liberalization agreements with other countries in the region, as well as with the EU. While trade liberalization expands market access, technical barriers to trade and sanitary and phytosanitary measures have become increasingly significant in regulating trade activities. These barriers can pose significant challenges, especially for developing or emerging economies like Albania, as exporters must prove compliance with market entry requirements, such as standards and technical regulations related to Quality Infrastructure (QI), Fruits and Vegetables (F&V) production and trade is a strategic sector for Albanian agricultural and rural development, in terms of contribution to agri-food production, employment and particularly exports. Albania has a consolidated tradition in F&V production, organised in clusters. After a dramatic disruption of the supply chain and reduction of the production base following the collapse of the planned economy in 1990s, some of the old clusters are being reconstructed and new ones (such as the strawberry cluster) have emerged, upturning two decades of international trade deficits in vegetables into a growing trade surplus and gradually reducing the deficit in fruit international trade.

Fruits and vegetables sector is now one of the main sectors in terms of the number of rural households involved and the income that it generates. It is also by far the leading sector in terms of international trade, with the combined export of fruits and vegetables exceeding USD 100 million, accounting for nearly 1/3 of all agrifood exports (HS1 - HS24). More specifically, vegetables contribute to 23% of total agrifood exports (ca 81.4 million USD) and fruits to 8% (ca 26.6 million USD) as of 2020 (UNSTAT, 2022).

All indicators show a positive trend in the last decade, in terms of output growth, trade balance (imports decline or export increase) and a significant flow of investments, primarily contributing to: i) Reducing losses and maintaining quality levels along the supply chain (e.g., post-harvest facilities) and ii. Strengthening and consolidating the production base in protected crops and developing export-oriented clusters, such as strawberries.

The fresh produce segment in the F&V sector witnessed a positive development with increasing output, better quality, increasing number of qualified stakeholders along the supply chain and good rewards in terms of import substitution and export increase. Investments have been focused on greenhouse establishment and expansion of storage capacities. However, there have been relatively few investments in F&V processing, conditioned by gaps in quality control management and various difficulties encountered in introducing contract farming on a large scale.

Despite the progress achieved in the agrifood sector in Albania, compliance with food safety and quality standards remains a challenge in terms of both EU approximation and export market requirements. The slow process of consolidation and improvement of the Quality Infrastructure (QI) has also played a role in impeding the growth of F&V sector, fuelled in part by the mutual distrust between public institutions, independent service providers and leading value chain operators.

There have been repeated cases of Albanian F&V product export rejections, due to non-compliance with safety standards, resulting in serious financial losses for the traders and frequent losses for primary producers (i.e., farmers) as well. On the other hand, consumers in both export markets and the domestic market are becoming increasingly aware of the importance of ensuring high food safety and quality standards. These concerns are evident in the increasing adoption of voluntary standards. Products intended for foreign markets must comply not only with regulations on health and safety, but also with the increasing number of additional requirements from international buyers, which in many instances translates into the necessity to apply voluntary standards.

To avoid the above-mentioned gaps and to integrate into global markets, Albanian exporters need to ensure compliance with legal and additional requirements, including adoption of standards. Therefore, quality infrastructure services (inspection, compliance, and certification) must be available and have sufficient capacity to support every stage of the value chain.

The lack of reliable and affordable market information services has had a more significant impact than inadequate QI in generating risks for all agri-food sectors, including F&V. SMEs that proved profitable in the short term, are facing factors and market-related challenges in the long-term.

Based on the above, the Global Quality and Standards Programme (GQSP)[1], an initiative led by the United Nations Industrial Development Organization (UNIDO), has conducted a "Value chain analysis of the fruit and vegetable sector in Albania, focusing on quality, environmental, social, sustainability standards and regulations (market requirements, in particular the EU market requirements) and in particular the capacity to comply".

A quality-related diagnosis of the selected value chains was performed to identify and design project interventions that tackle the quality infrastructure bottlenecks and constraints that prevent the value chain from increasing exports and competitiveness. The methodological approach is based on the Quality Along the Value Chain Methodology (QI4VC). A detailed description of the methodology is provided in **chapter 2** below.

This report is organised into **seven** chapters: the first two chapters are Introduction and Methodology, which are followed by a chapter on value chain analysis, including production trends and market trends. The fourth chapter consists of legal requirements for the export of fresh F&V products in EU countries, followed by the analysis of the Quality Infrastructure system in Albania, highlighting features, performance and gaps, and including a culture for quality overview, with specificities for each main segment of the supply chain. The sixth chapter focuses on past and ongoing initiatives and supporting schemes, while the last one consists of conclusions and recommendations.

[1]The Global Quality and Standards Programme (GQSP), supported by Switzerland through its State Secretariat for Economic Affairs (SECO), is a global initiative aiming to assist more than 12 countries worldwide to boost their competitiveness in 16 specific sectors. The objective of the country project in Albania is to sustainably increase market access in the Medicinal and Aromatic Plants (MAPs) and Fruit and Vegetable (F&V) value chains by strengthening the capacities for compliance with quality and standards, with a focus on fostering stronger international trade relations, particularly with EU markets.

2

METHODOLOGY

2.1 METHODOLOGICAL APPROACH

This study is based on the UNIDO Quality Along the Value Chain (QI4VC) approach (UNIDO, 2023). The analysis of selected value chain with a focus on quality infrastructure systems constitutes the conceptual base of this approach.

The value chain (VC) approach is increasingly employed by policy-makers and donors/development agencies to identify suitable entry points to enable the upgrade of the value chain (FAO, 2014). Within the meaning of this study, a value chain is a set of businesses, activities and relationships engaged in creating a final product or service (FAO, 2006). The value chain analysis describes how producers, processors, buyers, sellers, and consumers gradually add value to products as they pass from one link in the chain to the next (UNIDO, 2011).

The dynamics and complexity of a value chain could also represent a challenge for national quality institutions. Thus, it is crucial to highlight the importance of having a fit-for-purpose Quality Infrastructure (QI) in place to address the needs of a specific value chain. Having the proper QI in place is a crucial element for the development of a sector and for increasing exports and competitiveness. Moreover, developing countries with a robust quality system are more likely to gain the trust of importers and investors. By strengthening the institutions, structures and relationships within the QI and value chain stakeholders, an intervention could improve the quality of the products and processes and thereby contribute to the competitiveness of the value chain (UNIDO, 2023).

However, there is no ready-made Quality Infrastructure System (QIS) model that will suit all countries and value chains. For this purpose, a tailored-made approach is necessary. Identifying the bottlenecks and gaps at each of the stages of the value chain is crucial to create interventions that tackle the main issues and strengthen not only the institutions, but also the private sector.

The overall objective of this methodology is to perform a quality related diagnosis of the selected value chain to gain a full understanding of the status and functioning of the sector and to better identify and design project interventions that tackle the quality infrastructure bottlenecks that prevent the value chain from increasing exports and competitiveness.

The Quality Along the Value Chain Methodology (QI4VC) is a reliable way to ensure that support to Quality Infrastructure is precisely tailored according to the needs of each value chain, and thereby, interventions can become more effective (UNIDO, 2023). It also ensures stakeholders' participation in developing a shared vision that identifies how the chain should perform and the improvements needed. The outcome of this exercise is the identification, prioritization, and attainability of the QI deficiencies of the selected value chain. QI4VC also serves as a tool for policy development as it provides governments, donors, and development agencies with an assessment of the quality-related gaps and investment opportunities that need to be addressed to increase exports and competitiveness (UNIDO, 2022).

2.2 TYPOLOGY OF DATA

Secondary data

To ensure comparability between global and Albanian trends, secondary data were retrieved mainly from international databases such as UNSTAT COMTRADE (for international trade), FAOSTAT and EUROSTAT (e.g., international trade). For some indicators, data from the Albanian Institute of Statistics (INSTAT) or the Ministry of Agriculture and Rural Development (MARD) were used. In addition, a thorough review of other relevant studies and reports was carried out.

The focus of the analyses was on priority products, selected on the basis of a prioritisation matrix, as described in **subchapter 2.3** below.

Primary data

The primary data collection consisted of semi-structured in-depth interviews carried out with key informants. More than 45 value chain stakeholders (mainly processors/exporters) and experts, were interviewed using two different types of questionnaires, i.e. one for experts and representatives of QI institutions and one for value chain stakeholders. The semi-structured survey questionnaire which targeted exporters was based on the QI4VC approach.

A SWOT analysis and a PESTEL analysis (focused on quality infrastructure) were carried out, using a participatory approach. The relevant outcomes are respectively presented in **chapter 5** and **chapter 7**.

Data analysis

Secondary statistical data and structured questions from the survey have been subjected to a standard descriptive analysis, including tables and graphs depicting statistics and historical trends. The information/notes from the interviews were analysed using a content-summarizing approach and qualitative content analysis techniques, with the aim of condensing the most relevant and interesting topics that surfaced during the interviews.

The methodology used for the data analysis related to SWOT and PESTEL, is described in detail in **subchapter 2.4** below.

2.3 PRODUCT PRIORITIZATION

A product prioritization process was conducted, which consists of a ranking system based on the cumulative ranking of the performance criteria selected by experts, using a simple formula where each criterion (indicator) is assigned a specific weight. The result is a Product Prioritisation Matrix (PPM) which is generated based on a multi-indicator ranking index. This index combines the scored ranking of several criteria.

Data collected during the inception period and a review of guiding methodologies from UNIDO were used to define and calculate the criteria including QI4VC, which is an innovative assessment tool developed by UNIDO (UNIDO, 2023). The QI4VC typically employs a range of performance criteria for selecting or prioritising specific value chains. We used this approach for selecting the products. The groups of criteria used in QI4VC are categorised into outward performance criteria (export potential and competitiveness, international trade environment) and inward performance criteria (economic, social and environmental) as well as externalities such as the orientation toward high-value markets, choice of experts and value addition. For each criterion, indicators were selected based on a review of the literature, secondary statistics and semi-structured interviews carried out with experts. Other criteria suggested by QI4VC are impossible to apply due to a lack of availability of data according to the type of products.

A weight is assigned to each criterion. A weight of 60% is assigned to the performance of the international trade environment, export trends, and competitiveness. Within this group of indicators, exports as a proportion of the total value of F&V exports serve as a key indicator. The regional concentration and environmental impact are assigned a weight of 15%. The pragmatic component is assigned a weight of 25%. Table 2.1 below provides the main types of indicators.

TABLE 2.1: CRITERIA AND INDICATORS USED FOR THE SELECTION OF PRODUCTS IN THE FRUITS AND VEGETABLES VALUE CHAIN

Type	Criteria	Indicators	Resources
Pragmatic	Value addition	Value addition (capacity to be integrated into the processing stage)	AGT & DSA (2021) and updated statistics
	Relevance to QI	Share of exports values toward quality-demanding markets (EU, 28).	UNCOMTRADE
	Experts' consultation	Spillover effect and contribution to labor (number of workers)	Discussions with UNDO
Export potential & competitiveness	Production growth	Average increase of production in % in the last 3 years (2017-2020)	Secondary statistics
	Export contribution trend	Increase of export value (% change in the last 3 years) on average (2017-2020)	UNCOMTRADE
		Average share of export value in relation to total exports (%) (2017-2020)	UNCOMTRADE
	Self sufficiency	Self-sufficiency (share of production in relation to overall supply) for 2020	UNCOMTRADE
Environmental impact	Impact of the VC Environment	Presence of protected area production (proxy for environmental harm) for 2020	Secondary statistics
	Regional concentration	Cluster/Regional concentration in 2020	Secondary statistics

Source: Own elaboration based on QI4VC tool.

Each criterion selected was ranked to prepare the ranking table. The score's cumulative value defines the crop position in the PPM. Based on the prioritisation matrix, the priority products selected for in-depth analysis are ranked as follows: tomatoes, peppers, strawberries, watermelon, cucumbers, and gherkins.

2.4 PESTEL AND QI PERFORMANCE ASSESSMENT

In order to examine the macro-environmental (external environment) and the relevant factors influencing the quality infrastructure (QI) a PESTEL (Political, Economic, Social, Technological, Environmental and Legal) analysis was used. The outcomes of this exercise are provided in **chapter 5** below.

The analysis enables the identification, tracking and assessment of the key factors that might influence in the QI and the extent of such influence. The assumption is that changes in PESTEL components can substantially affect the direction and prospects of industry efforts to benefit from a better Quality Infrastructure. The analysis is conducted in two steps: i) Selection of the relevant PESTEL components from a list determined through expert assessment and literature. ii) The relevant components are further broken down into sub-factors, forming the metrics used to assess the QI.

The use of highly qualified expertise in compiling the PESTEL analysis is crucial for ensuring the right assessment of the scale of effect for each factor. PESTEL templates were distributed to participants in the Workshop held in the framework of the presentation of the preliminary results[2]. Participants were introduced to the methodology and were provided with guidance on how to evaluate each PESTEL component, assigning a score on a scale from 0 to 6, where "1" indicated minimal influence and "6" signified maximum influence. During the workshop, 31 templates were filled and entered into the Excel database form. Each component underwent descriptive analyses, with the aim of calculating the average scores and the standard deviation. The template used for the PESTEL analyses is provided in table 2.2 below.

[2] Workshop "UNIDO PROJECT ID 200309 Global Quality and Standards Programme Albania: Strengthening quality and standards compliance capacity for selected value chains" performed on February 17th, 2023 in Tirana

TABLE 2.2: ASSESSMENT OF THE ELEMENTS OF PESTEL (ABOUT QI) WITH A FOCUS ON THE SELECTED VALUE CHAIN

Political - The regulatory role of the government in relation to business, labor legislation, commercial legislation, consumer protection legislation, environmental protection legislation, etc.	0	1	2	3	4	5	6
Is the government's regulatory role positively influencing the Quality Infrastructure (QI) of fruits and vegetables?	No influence	£	£	£	£	£	Maximum influence
Is the trade legislation influencing the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is the agricultural support policy influencing the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is the implementation of consumer protection legislation driving the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is the implementation of taxation policies promoting the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Economic - Economic situation (macro indicators), market openness, ownership, competition, etc.	0	1	2	3	4	5	6
Is the overall economic development positively influencing the demand for better QI?	No influence	£	£	£	£	£	Maximum influence
Is trade openness positively influencing the demand for better QI?	No influence	£	£	£	£	£	Maximum influence
Is the international market structure driving the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is the land ownership structure motivating the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is the competitive environment among exporters conducive to the development of QI?	No influence	£	£	£	£	£	Maximum influence
Socio-demographic trend, education, culture for QI, etc.	0	1	2	3	4	5	6
Do demographic trends encourage/cause the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Does immigration encourage/cause the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is the local educational level sufficient to encourage/cause the improvement of quality standards?	No influence	£	£	£	£	£	Maximum influence
Does the development of society's consumption culture encourage/cause the improvement of quality standards?	No influence	£	£	£	£	£	Maximum influence
Does the behavior of foreign consumers affect the improvement of quality standards?	No influence	£	£	£	£	£	Maximum influence
Technological - Innovation and technology transfer, intellectual property rights, availability and access to the services of research institutes.	0	1	2	3	4	5	6
Do the capacities of national laboratories suffice to enhance quality standards?	No influence	£	£	£	£	£	Maximum influence
Has product certification brought about the fulfilment of quality standards?	No influence	£	£	£	£	£	Maximum influence
Is innovation in farm production protocols promoting QI?	No influence	£	£	£	£	£	Maximum influence
Have advisory services (extension) contributed to the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Does the level of applied scientific research at universities contribute to the development of the QI?	No influence	£	£	£	£	£	Maximum influence

Environmental technological solutions and policies, particularly related to climate change, with the goal of preserving the potential of natural resources	0	1	2	3	4	5	6
Are climate change adaptation interventions influencing the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Is environmental legislation enforcement driving the improvement of the QI?	No influence	£	£	£	£	£	Maximum influence
Do policies and regulations for sustainable land and water use promote better QI?	No influence	£	£	£	£	£	Maximum influence
Does the level of infrastructure (electricity, roads, telephone, internet, logistics) influence the development of the QI?	N o influence	£	£	£	£	£	Maximum influence
Do developments in renewable energy drive the improvement of the QI?	N o influence	£	£	£	£	£	Maximum influence
Legal - European, national, sectoral legislation forming an institutional framework for fostering development within the business environment	0	1	2	3	4	5	6
Is legal alignment with the EU sufficient to promote the improvement of the QI?	N o influence	£	£	£	£	£	Maximum influence
Is political attention to quality institutions sufficient to promote the development of the QI?	N o influence	£	£	£	£	£	Maximum influence
Is sector-level legislation useful for promoting the development of the QI?	N o influence	£	£	£	£	£	Maximum influence
Are Albanian institutions promoting quality and safety contributing to the development of the QI?	N o influence	£	£	£	£	£	Maximum influence
Are Albanian inspection institutions for food safety and quality standards helping the development of the QI?	N o influence	£	£	£	£	£	Maximum influence

Source: Author's adaptation from Marmol et al. (2015)

2.5 CULTURE FOR QUALITY AND SWOT ANALYSIS

It is crucial to assess culture for quality in the context of the selected sector/value chain, by emphasizing the relevant important aspects such as food safety and quality awareness and how they are addressed. Culture for quality, as aligned with ISO 9000:2015, encompasses customer focus, leadership, people engagement, process approach, improvement, evidence-based decision-making and relationship management.

We have drafted a subsection (5.8) which addresses the key elements of culture for quality in the context of the stakeholders of the F&V value chain. After providing an overview of the consumer / customer perceptions and expectations, we delve into leadership, guided by the relevant literature, with a specific focus on forms of value chain governance, such as contract farming (see 5.8.3). Forms of value chain governance / leadership are crucial to improve value chain performance, including standards compliance. In this context, we also highlight the nature of relations between stakeholders of the value chain. The following subsection (see 5.8.3), focuses on the process approach, evidence-based decision making and improvement., there is a special emphasis on the use of laboratory analysis as a basis for making decisions (evidence-based decision making) and improving performance / compliance with standards.

The outcomes of this exercise are provided in Chapter 7. The primary emphasis was placed on weaknesses and threats within the policy, regulatory and institutional efforts aimed at achieving quality standards and identifying lucrative markets for the priority F&V products. The SWOT template was distributed to participants in the Workshop held in the framework of the presentation of the preliminary results. Participants were introduced to the SWOT components and discussions were held with participants on the main strengths, weaknesses, opportunities and threats related to quality infrastructure in the selected value chains. Participants were provided with guidance on how to rank the 5 most important weaknesses and 5 most important threats and were encouraged to describe any additional significant weaknesses or threats influencing the advancement of quality in the targeted value chains, which have not been identified in the template. During the appraisal, a total of 31 templates were completed and subsequently entered into a spreadsheet form. The main components were selected based on a descriptive analysis estimating the frequency of chosen options for each weakness and threat according to the indicated level of importance.

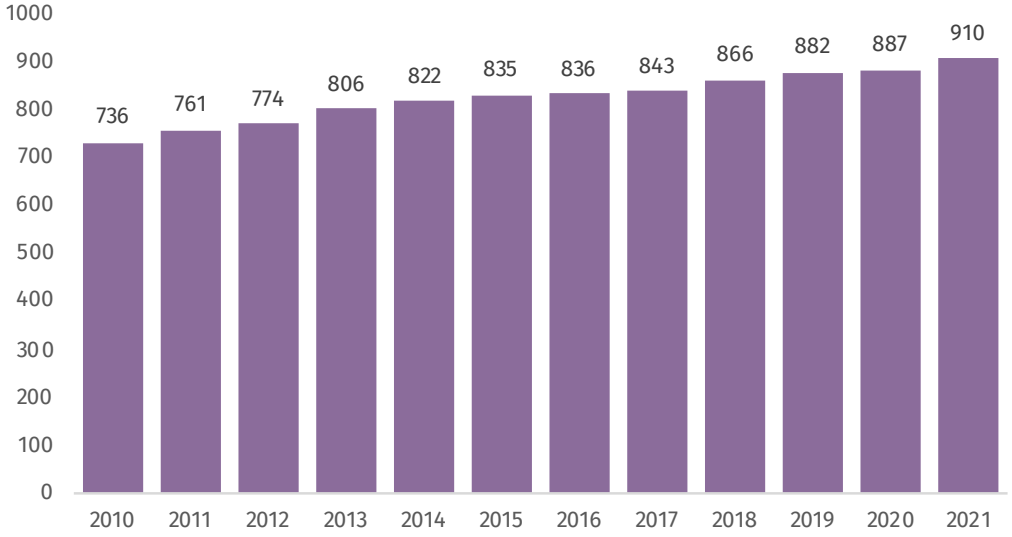
3 VALUE CHAIN TRENDS

3.1 GLOBAL TRENDS

The global production of fruits and vegetables has increased significantly during the past decades. Production growth has been fuelled by increasing trade and demand, and on the other hand enabled by higher productivity (yields) and expansion of cultivated area.

FIGURE 3.1: GLOBAL FRUIT PRODUCTION (MILLION TONS)

Global fruit production has increased by more than 20% since 2010, reaching 907 million tons in 2021. A similar trend is observed also in Europe, but with a lower growth rate.

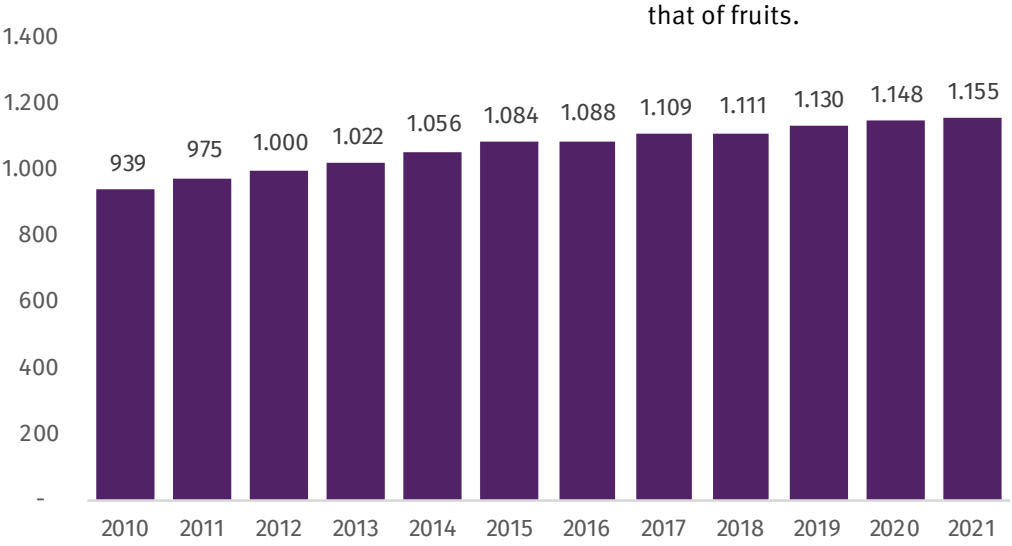


Source: FAOSTAT (2023)

Around 28% of the global fruit supply is produced in China and 11% in India. Other major producers of fruits are Brazil (4.5%), Turkey (2.7%), Mexico (2.7%) and USA (2.7%). Within the top 10 global producers, there are also European countries such as Spain and Italy (FAOSTAT, 2023).

FIGURE 3.2: GLOBAL VEGETABLE PRODUCTION

Global production of vegetables reached around 1,155 million tons in 2021, following a growth trend similar to that of fruits.



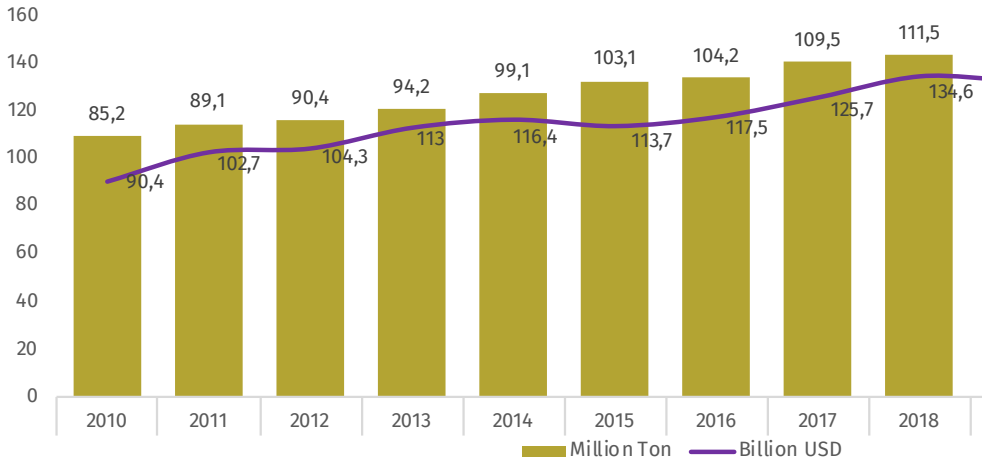
Source: FAOSTAT (2023)

Half of the global production takes place in China. The second leading producing country is India. Both China and India are also the largest markets.

The global fruit trade has been characterized by increasing trends both in volume and value. Europe accounts for nearly half of the global fruit imports.

FIGURE 3.3: GLOBAL FRUIT IMPORT TRENDS (QUANTITY AND VALUE)

Global trade (imports) has increased by 35% in volume and 54% in monetary terms since 2010. The significant increase in trade value also reflects increasing prices in addition to increased volumes.

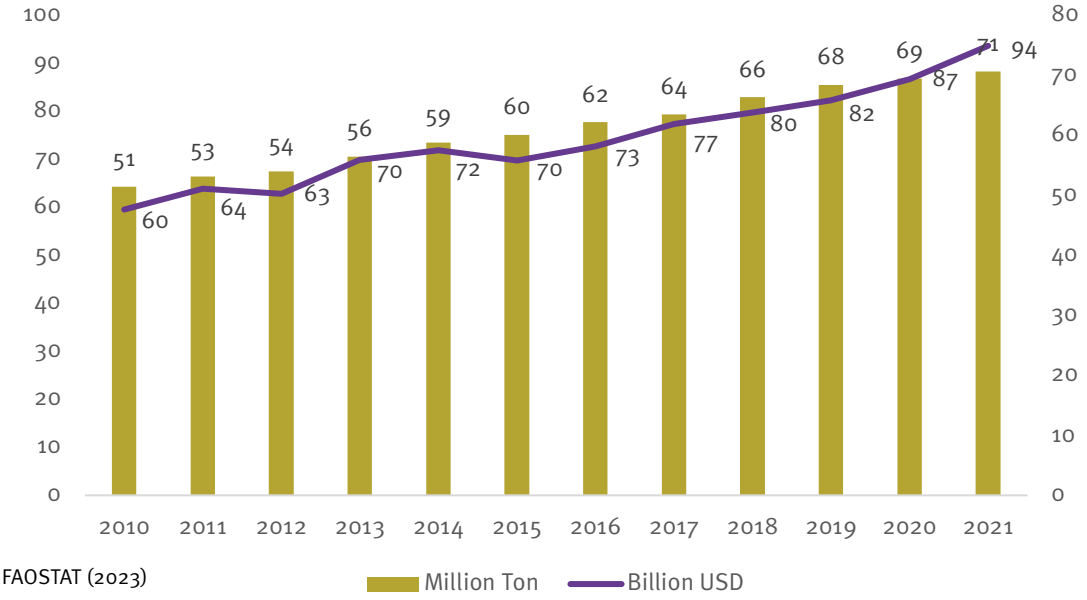


Source: FAOSTAT (2023)

FIGURE 3.4: GLOBAL VEGETABLE IMPORT TRENDS (MILLION TONS)

Similar to fruits, there has also been a noticeable upward trend in global vegetable trade, with an increase of over 50% in value since 2010.

Almost 70 million tons of vegetables are globally imported and slightly less than half is imported by European countries, which are the main markets for Albanian fruits and vegetables.



Source: FAOSTAT (2023)

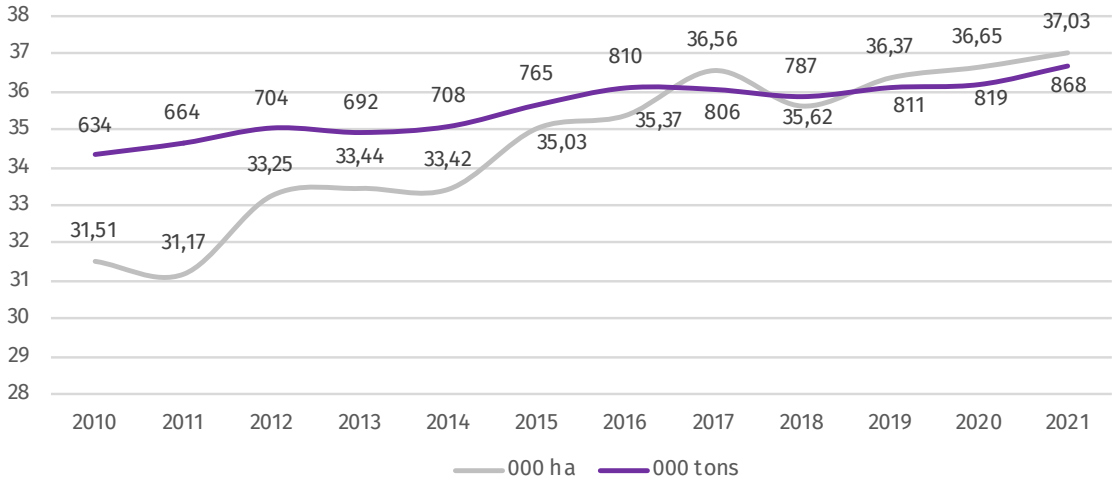
Imports of fruits and vegetables in Europe and especially in the EU (which is also the main targeted market for Albanian F&V products) have increased during the past decade. By 2031, the EU consumption of fresh fruit is expected to further increase, driven by an increased consumer awareness of the benefits of adopting a diet rich in F&V, as well as public initiatives to promote their consumption. However, there are significant differences across sectors and between the EU countries. There is a maturity of the market for 'traditional' products which makes them less attractive to consumers, as well as health concerns related to the high sugar content of certain products such as juices (EC, 2021). As such, fresh F&V have the potential to target the EU market, while for processed fruits it would be challenging.

3.2 ALBANIAN PRODUCTION TRENDS

Production of fruits (in terms of quantity) has increased by almost 1/3, reaching 868 thousand tons in 2021.

FIGURE 3.5: FRUIT PRODUCTION TRENDS IN ALBANIA

The rise in production levels can be attributed to expanded cultivation areas and improved yields, with a time lag between changes in cultivated area and production.

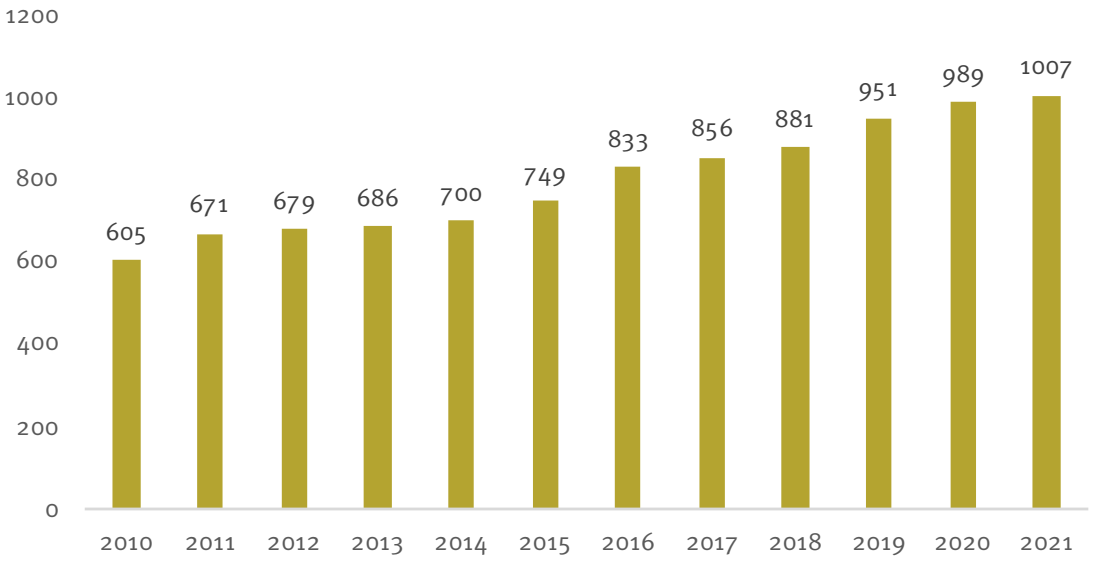


Source: FAOSTAT (2023)

Similar to fruit, the growth of vegetable production has been mainly driven by an increase in the number of greenhouses/protected areas.

FIGURE 3.6: VEGETABLE PRODUCTION TREND IN ALBANIA

The production of vegetables has increased by almost 60% since 2010, exceeding 1 million tons in 2021.



Source: FAOSTAT (2023)

Tomatoes are among the main vegetables produced and consumed in Albania, as well as the leading export food item. Production of tomatoes in Albania in the last decade (2010-2021) has increased significantly. Official data show that from around 200 thousand tonnes in 2010, production reached 314 thousand tonnes in 2021 (+58%). Tomatoes are primarily intended for fresh consumption. The other two important greenhouse vegetable products in Albania are cucumbers and peppers, which also witnessed a substantial production growth in the decade 2010-2021 (+71% for cucumbers and +52% for peppers). The largest share of production of tomatoes, cucumbers and peppers takes place in greenhouses.

Strawberry production emerged during the past decade and kept increasing in the recent years. The production of strawberries takes place mainly in the cluster of Kafaraj (described further in this subchapter).

Production of watermelon has increased by 21% between 2010 and 2021, while production of melon has decreased by almost 22% over the same period. Production of watermelon and melon takes place both in greenhouses (or low tunnels) and open fields.

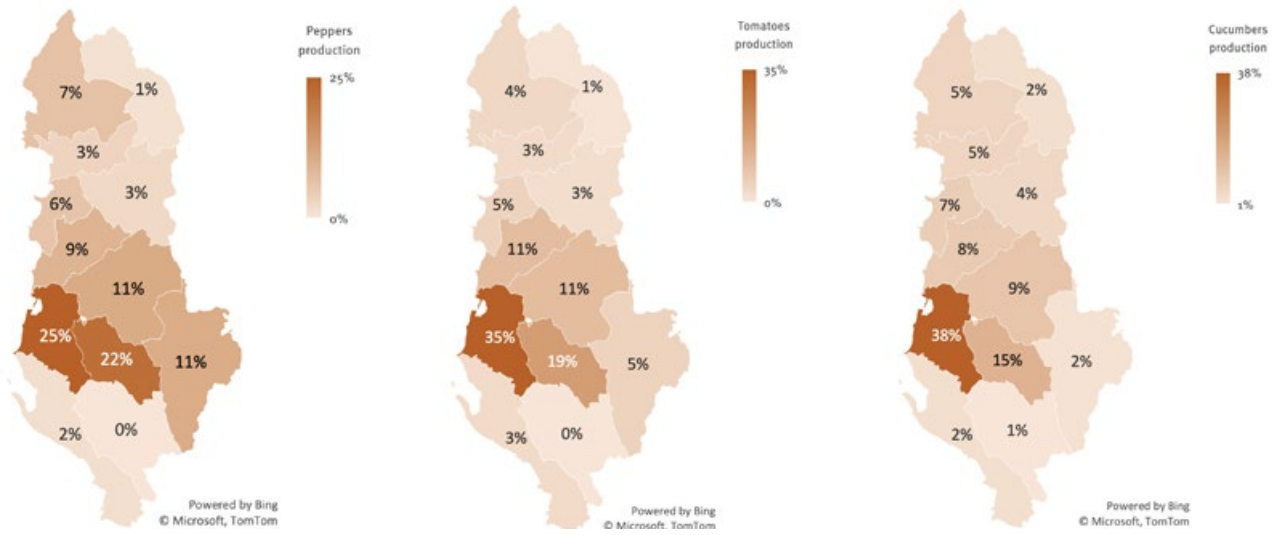
TABLE 3.1: PRODUCTION TRENDS OF THE SELECTED PRODUCTS (TONS)

Year	Tomatoes	Cucumber	Pepper	Strawberries	Watermelon	Melon
2010	199,283	68,959	65,475	---	199,364	64,622
2015	256,518	83,049	75,598	---	235,630	45,815
2016	284,552	94,279	76,810	---	240,993	42,462
2017	286,811	110,210	75,211	5,089	252,017	43,654
2018	288,626	120,351	81,317	4,393	239,533	41,764
2019	299,669	126,632	85,061	5,273	259,697	40,713
2020	313,109	113,685	103,056	5,446	248,724	50,164
2021	314,470	118,171	99,334	5,723	270,944	50,669

Source: FAOSTAT (2023)

Fier is the main region for vegetable production in Albania; production concentration is even higher for the three main vegetables, i.e., tomato, cucumber and pepper. In 2020, Fier region (which also comprises Lushnja and Divjaka) accounted for 35% of tomato production, 38% of cucumber production and 25% of pepper production. The other main production area is Berat, accounting respectively for 19%, 15% and 22% of tomato, cucumber and pepper production.

FIGURE 3.7: REGIONAL PRODUCTION PATTERNS FOR TOMATOES, CUCUMBERS AND PEPPERS (2020)



Source: INSTAT (2020)

BOX 1: THE STRAWBERRY CLUSTER OF KAFARAJ

A strawberry cluster has emerged in Kafaraj, with strong export orientation. It is also the main source of domestic supply. More than 100 ha of greenhouses are used to produce strawberries. Many farms are operated by migrants returning from Greece, who used to work in the same sector and came back to Albania with know-how and capital, making Kafaraj a leading production cluster for strawberries. In Kafaraj, there are specialized collection points that are export-oriented, though other exporters and traders are also supplied from Kafaraj. Several input suppliers operate in the area as well. The product is exported to multiple markets, including Italy, where meeting the standards demands the use of high-quality (and often costly) inputs as well as skilled farmers.

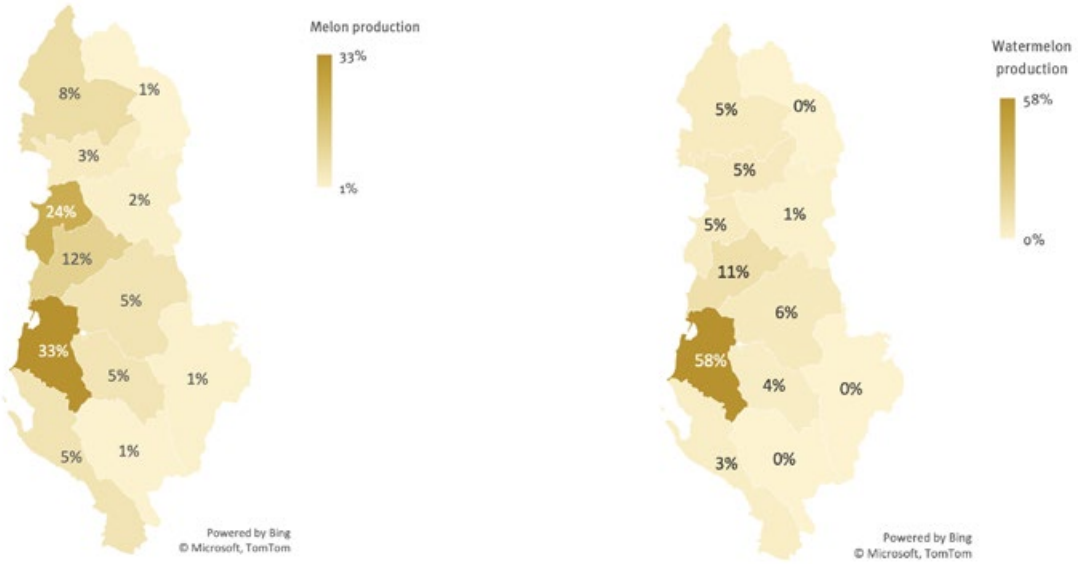
There is a lack of support and cooperation with research institutions for strawberry production. At the average farm level, the use of laboratory analyses is limited. On the other hand, there is no domestic mass production of certified propagation material for strawberries. Some farmers produce propagation material to save money. However, this may adversely impact the quality.

There is a potential to develop organic production processing capacities to reduce losses and price volatility and thereby target new high value markets.

Source: Authors based on interviews and Skreli and Imami (2019), Zhllima et al. (2021)

Watermelon and melon production takes place in three main regions, specifically in Fier, Durrës and Tirana. There is a high concentration of the production of melon and watermelon in Divjaka cluster (see the following box).

FIGURE 3.8: PRODUCTION OF MELON AND WATERMELON IN ALBANIA BY REGION (2020)



Source: INSTAT (2020)

BOX 2: THE CLUSTER OF DIVJAKA

Divjaka (situated in the region of Fier) is the most productive area for vegetables in Albania and remains a leading region in the production of export-oriented watermelon and melon, as well as several vegetables. The prominent role of Divjaka in the national production of watermelon and melon, as well as early vegetables in general, is due to the region's know-how and tradition in such productions (the area was specialised in vegetable production also during the planned economy). The geographic position and suitable microclimatic conditions are also important factors.

Divjaka's success as a production cluster has been driven also by its close proximity to major urban areas and the early availability of good roads, as well as the return of many former emigrants with capital and know-how. In addition, a strong incentive for the further development of this cluster has been the construction of the first high-technology greenhouse nursery (a Dutch model implemented by Bruka Seedlings), which brought about a rapid change in the quality of the seedling and the technology of cultivation. In addition, several other major input suppliers are present in the area, and there is also a vibrant wholesale market.

In Divjaka there is also a local laboratory, Urban-Lab, owned by the municipality of Divjaka, managed by a non-profit organisation and supported by various donors, where farmers can benefit from various analyses related to agriculture (e.g., soil/water) (for more details see the chapter on Quality Infrastructure System).

Source: Authors based on interviews and on Skreli and Imami (2019), Zhllima et al. (2021) and Canali et al. (1998)

3.3 ALBANIAN INTERNATIONAL TRADE TRENDS

The export of fruits has almost doubled in volume and has increased by more than 5 folds in value, implying a significant increase in value/prices too. Trade balance has been improving in the last decade; however, there is still a significant trade deficit.

TABLE 3.2: ALBANIAN INTERNATIONAL TRADE OF FRUITS (QUANTITY AND VALUE)

	Quantity (000 tons)		Value (Million USD)		
Year	**Export**	**Import**	**Export**	**Import**	**Exp/Imp**
2010	22.6	92.2	3.8	20.5	19%
2015	52.3	70.9	15.7	61.8	25%
2016	42.7	78.6	21.9	46.4	47%
2017	53.9	60.9	22.2	54.3	41%
2018	31.7	67.5	19.4	52.0	37%
2019	32.2	92.6	23.8	64.8	37%
2020	36.5	76.9	26.6	62.6	42%
2021	44.7	102.8	20.9	57.7	36%

Source: FAOSTAT (2023)

Watermelon, tangerines, strawberries and chestnuts make up more than half of the total exports; melons & watermelons, strawberries and tangerines are the most exported fruit crops; strawberries show faster growth in production and exports as compared to tangerines.

TABLE 3.3: STRUCTURE OF ALBANIAN EXPORTS OF FRUITS (MAIN FRUITS)[3]

Year	Fruit Mill USD	Watermelon		Apple		Tangerines-80521		Strawberries - 81010		Chestnuts - 80241	
		Mill USD	Share	Mill USD	Share	Mill USD	Share	Mill USD	Share	Mill USD	Share
2017	22.2	5.6	25%	1.5	7%	2.5	11%	1.1	5%	2.7	5%
2018	19.4	3.5	18%	1.0	5%	1.9	10%	1.7	9%	1.2	9%
2019	23.8	5.6	23%	1.9	8%	3.6	15%	2.0	8%	1.5	8%
2020	26.6	7.5	28%	0.9	4%	2.7	10%	2.7	10%	1.1	10%

Source: UNSTAT Comtrade (2022)

The vegetable sector is a success story. The export of vegetables has increased nearly 18-fold since 2010, and a trade surplus has been consistently maintained since 2015.

TABLE 3.4: ALBANIAN INTERNATIONAL TRADE OF VEGETABLES (QUANTITY AND VALUE)

	Quantity (ooo tons)		Value (Million USD)		
Year	**Export**	**Import**	**Export**	**Import**	**Exp/Imp**
2010	14.9	23.4	4.4	26.4	17%
2015	85.5	26.0	32.7	16.0	204%
2016	100.4	24.6	43.4	18.8	231%
2017	119.4	23.1	58.9	18.8	313%
2018	111.0	18.9	68.9	22.9	301%
2019	105.7	32.9	71.2	23.6	302%
2020	119.1	30.4	81.4	20.5	396%
2021	114.0	34.2	80.3	51.8	155%

Source: UNSTAT FAOSTAT (2023)

As highlighted earlier, tomato is a key vegetable in terms of production and trade – it makes up about half of the total exports of vegetables. Together with pepper and cucumber, which are all mainly produced in greenhouses, they make up about 80% of the total export values.

TABLE 3.5: STRUCTURE OF ALBANIAN EXPORTS OF VEGETABLES (MAIN VEGETABLES)

Year	Vegetable	Tomatoes		Cucumber		Pepper	
	Mill USD	Mill USD	Share	Mill USD	Share	Mill USD	Share
2010	4.4	1.9	44%	0.3	8%	0.1	2%
2015	32.7	22.3	68%	4.1	12%	1.6	5%
2016	43.4	26.4	61%	6.8	16%	3.4	8%
2017	58.9	34.0	58%	9.6	16%	5.9	10%
2018	68.9	37.8	55%	10.2	15%	7.4	11%
2019	71.2	34.5	48%	10.8	15%	10.7	15%
2020	81.4	37.5	46%	11.8	14%	16.6	20%

Source: UNSTAT Comtrade (2022)

[3] Note: Watermelon and melon are classified as fruits under the HS (trade) classification. However, from a technological viewpoint, they are considered closer to field or greenhouse vegetables.

3.4 ALBANIAN FRUIT AND VEGETABLE VALUE CHAIN STRUCTURE AND STAKEHOLDERS

3.4.1 Input suppliers

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. Some input suppliers experiment on behalf of international seed/seedling companies in selected farms (in the case of vegetables). There are 412 retail units providing plant protection products and 646 retail units selling fertilizer products in Albania. The total number of Albanian companies that import fertilizer and PPP products is 57 (AGT-DSA, 2021).

There are various challenges related to the supply of inputs. The role of input suppliers is potentially subject to conflicts of interest. Frequently, advice is driven by the goal of maximizing profits rather than offering farmers the most beneficial guidance (e.g., linked to the sale of inputs). Some input suppliers lack professional competencies, while the greatest concern is the scarcity of young agronomists/professionals - the backbone of the input suppliers and overall professionals still consists of old specialists who are in their 50ies or 60ies.

In the case of greenhouse vegetables, seeds are typically imported (e.g., from the Netherlands), while most seedling production takes place in Albania, where several seedling producers are active. However, in the case of indigenous (local) varieties, for which a growing interest has been observed among agritourism operators, ATTC Lushnje is engaged in preserving and producing propagation material (e.g. seeds/ seedlings).

Regarding melons & watermelons, there are three large watermelon seedling suppliers in Albania: Agroblend, Bruka Seedling, and AgroKoni. Apart from these three, there are also a few minor players. There are also cases of seedling producers who are also fresh produce exporters – in these cases, they develop closer relations with farmers by providing seedlings and buying their products, taking an important coordinating role.

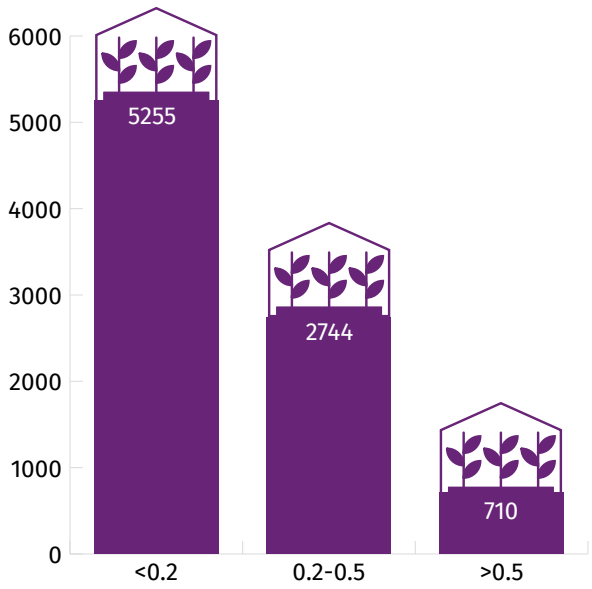
In the case of strawberries (which are cultivated in greenhouses), seedlings are imported from Greece or other countries (no seedling production takes place in Albania), but some (typically smaller) farms produce their own seedlings (as highlighted earlier in this chapter).

Overall, input suppliers are the main source of information and advice related to technology, especially for small farms.

3.4.2 Farmers

The production of fruits and vegetables is based on a fragmented production structure dominated by small family farms. According to interviews, the majority of farms that cultivate greenhouse vegetables, watermelons, and strawberries have less than 0.5 hectares of greenhouse space. Furthermore, these farms are predominantly managed by farmers with a basic level of education and a relatively high average age. The farm operational work primarily relies on family labour.

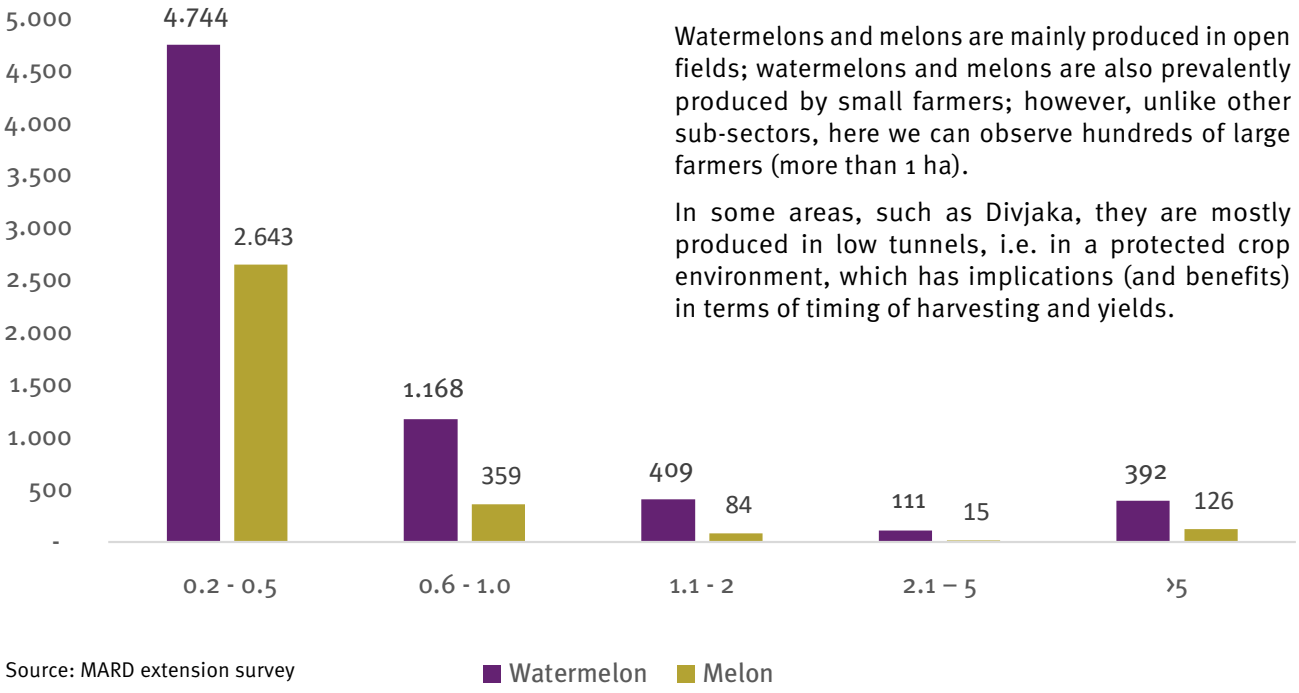
FIGURE 3.9: GREENHOUSE VEGETABLE COMMERCIAL FARMS DISTRIBUTION ACCORDING TO THE GREENHOUSE SIZE (IN HA)



Source: MARD extension survey

Most of the tomato, cucumber and pepper production intended for export is produced in protected environment, i.e., greenhouses and tunnels. The number of **greenhouse vegetable farmers** in Albania has increased substantially during the last two decades, with estimates showing around eight to ten thousand farmers engaged in this activity. Most farmers are small (less than 0.5 Ha), however a consolidation trend has been observed (an increase in the number of larger farmers).

FIGURE 3.10: WATERMELON AND MELON FARMS (2020) ACCORDING TO SIZE (IN HA)

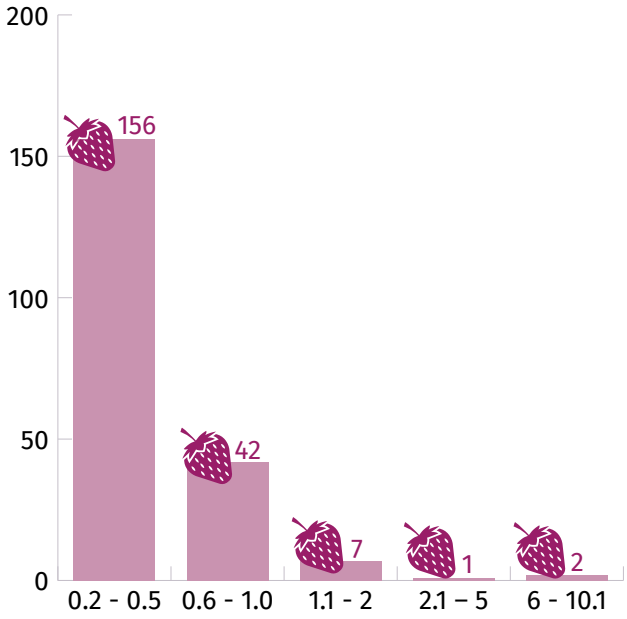


Source: MARD extension survey

Watermelons and melons are mainly produced in open fields; watermelons and melons are also prevalently produced by small farmers; however, unlike other sub-sectors, here we can observe hundreds of large farmers (more than 1 ha).

In some areas, such as Divjaka, they are mostly produced in low tunnels, i.e. in a protected crop environment, which has implications (and benefits) in terms of timing of harvesting and yields.

FIGURE 3.11: TUNNEL STRAWBERRY FARMS (2020) ACCORDING TO SIZE (IN HA)



Source: MARD extension survey

There are about 200 farmers producing strawberries, mainly in greenhouses.

While most producers are small (less than 1 Ha), there are also cases of larger investments / greenhouses, with a stronger export orientation. Many of these are part of the Kafaraj cluster.

3.4.3 Trading value chain stakeholders and infrastructures

3.4.3.1 Value chain stakeholders

Aggregators

Based on the observations and interviews with key stakeholders in the value chain, it is estimated that there are more than thirty aggregators operating in the greenhouse vegetables production cluster areas, namely in the municipalities of Berat, Kuçove, Ura Vajgurore, Lushnje, Divjake and Fier; there are also aggregators in the cluster of Kafaraj, specialised for strawberries. These operators are mainly located in the production area and are export-oriented; however, some are also supplying the domestic market via wholesalers. Most aggregators provide some basic value-added functions such as warehousing and transportation. However, most lack more advanced facilities such as cold storage and specialised sorting, cleaning, and packaging lines.

Large Wholesalers/Exporters

Large wholesalers/exporters (such as Doni Fruits) are becoming key players in the value chain. Interviews with key exporters, coupled with an analysis of international trade data, indicate that these operators export a wide range of fresh produce, but their primary focus lies in greenhouse vegetables. While most exporters sell to wholesalers abroad, there are emerging cases of exporters who are supplying supermarket chains or restaurant chains abroad and in Albania. This creates the conditions for engaging in contract farming with supplying farmers.

Retailers

In Albania, supermarket chains still play a limited role in the sale of fresh green products; supermarket chains play a greater role for processed F&V.

Most fresh F&V are sold in specialised green markets and convenience shops. In some cases, green markets are owned or licensed by local government authorities. Convenience shops are located in every neighbourhood, selling a wide range of food items, including fresh fruits and vegetables.

E-commerce or online sales have not been a common method for purchasing fresh fruits and vegetables. However, during the COVID-19 pandemic, this sector has experienced rapid growth, with reported instances of successful emerging entrepreneurs. Those operators position themselves in the high-end segment of the market (high quality and/or organic production). This represents a new market segment that requires further exploration to assess its sustainability in the horticultural sector beyond the current emergency.

An interesting outlet for the selected crops is the emergence of fast-food, such as KFC and Burger King, which are supplied by leading processors/traders in Albania – these market segments require high standards but also offer very attractive prices, and incentivize the application of contract farming.

3.4.4 Wholesale and retail infrastructures

Wholesale markets

The structure of wholesale and retail trade and the commercial agreements for the supply of supermarket chains assign a major role to wholesale markets, which therefore play a key role in F&V QI.

As in all countries, there are two types of wholesale markets:

» *Production level wholesale markets*, whose core mission is to collect raw products in main production areas and condition them (cleaning, sorting, grading, packaging, storing) for shipment in domestic and international markets. The most important wholesale market of this category is the one in Lushnje, which plays a major role in collecting the production of the core vegetable production area.

» *Consumption level wholesale markets*, also called platforms, are wholesale markets situated in close proximity to major cities. Their primary role is to cater to the needs of city retailers and eating establishments. A secondary function is to integrate green markets in funnelling to urban markets the local production. In Albania, the Tirana wholesale market is by far the most important facility of this category. This structure is private. A second, larger, wholesale market was recently built by Tirana Municipality.

In addition to offering trading space for rent and post-harvest services, most wholesale markets also provide other important services, such as: i) collection and dissemination of information on product prices and flows, ii) facilities for cleaning, recycling and repairing bulk packaging materials, such as boxes for F&V handling, and iii) in few cases spaces for cold storage.

The role of production-level wholesale markets, especially the one in Lushnje for F&V QI, cannot be underestimated, as they could and should play a key role in the traceability of products and application of good post-harvest practices. Small laboratories can be introduced in wholesale markets.

Green markets

Green markets are small infrastructures, usually owned by municipalities, where local small farmers can sell their products directly to end consumers.

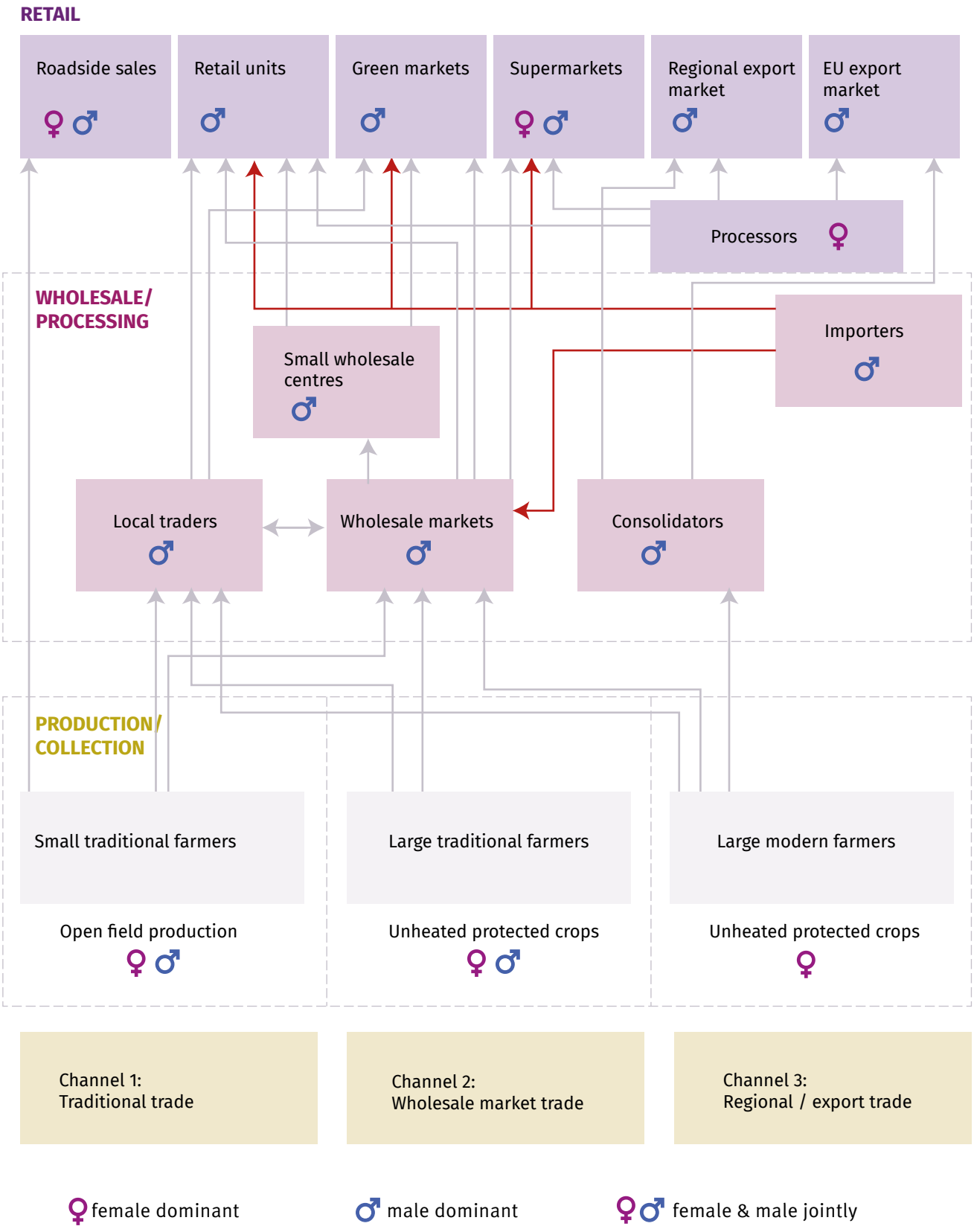
In Albania, they usually provide a more structured alternative to the unregulated roadside sale of products. However, they still have a long way to go in terms of offering services and implementing controls for traceability, food safety, and product quality. They represent an effective tool for the shortest supply chain possible, yet concurrently, they are also the least regulated. Introducing more QI services in green markets may increase costs and is likely to increase roadside trade, which further marginalises small farmers. However, a gradual improvement of quality-related services in green markets, along with an increased awareness of farmers and consumers regarding food quality and safety concerns, is a necessary step for the qualification of the F&V supply chain.

3.5. WOMEN AND YOUTH INVOLVEMENT IN THE VALUE CHAIN

Figure 3.12 shows the value chain map and the prevalent role of genders in value chain segments.

The gender division of labour in fruit and greenhouse production is clearly unequal, with a very low presence of women in the upper part of the VC and a very significant presence in the bottom part.

FIGURE 3.12: FRUIT AND VEGETABLES VALUE CHAIN STRUCTURE AND PREVALENT GENDER ROLES



Gender division of labour largely depends on processes. Women employed as hired labour usually work in labour-intensive and low paid activities, such as most of the agronomic practices in protected crops (planting, tying, thinning, harvesting) or selection and grading in post-harvest facilities.

The role of women in protected crops harvesting and in post-harvesting activities is particularly important, so they should be a key target of culture for quality efforts, as they represent the backbone of the workforce responsible for a crucial aspect of food safety (ensuring compliance with microbiological contamination and foreign matters content provisions) and quality (sorting, grading, cleaning).

Most of the women in fruits and vegetable sector had no previous education in agriculture. Working with their husband is crucial for learning on production process. Participation in training activities offered by public extension services or other institutions is limited for women. A previous study of GIZ (2021) shows that 71% of the respondents state that men are entitled to participate in the training or other informative meetings. Moreover, 36% of the respondents indicate that, according to prevailing village opinions, women's participation in these meetings is deemed inappropriate. Trainings in villages are not common and these rare events predominantly attract male participants. Lack of direct contact of women with input suppliers reduces access to information and know-how, diminishing their influence in production-related decision-making.

Regarding youth, the greatest challenge is the relative lack of interest to engage in the agriculture sector and live in rural areas, while there would be a demand for their participation in the workforce. Depopulation of rural areas, especially the more remote ones, is now common, a phenomenon which is being particularly driven by the movement of young people. However, in the case of greenhouse vegetables and strawberries, where income is relatively higher, a much higher participation of younger farmers is observed.

3.6. CLIMATE CHANGE EFFECTS ON FRUITS AND VEGETABLES

Based on previous studies (Imami et al, 2019; Zhllima et al, 2022) and in-depth interviews, climate changes have been observed/manifested through various phenomena, such as: spring (or even summer) frost; hails; floods; prolonged droughts; sand; unequal distribution of precipitations. The most evident climate change impacts on protected crops, which represent the core of the Albanian F&V exports and the most profitable primary production segment, can be summarized as follows:

» *Increased prevalence of extreme weather conditions,* increasing the risks of damage to production infrastructures and crop failure, with an overall increase of production costs due to increased investments (weather resistant greenhouses, weather hazard protections, e.g., nets in fruit orchards), and running costs (e.g. agricultural insurance);

» *Increased and/or modified prevalence of pests and diseases,* with a consequent need to adopt more flexible, ris- based agronomic practices. This sometimes conflicts with increasingly strict legal requirements in the use of PPP limits, leading to the need for introduction of completely new agronomic practices or to the replacement of permanent crops with yearly crops[4];

» Changes in factors affecting international competitiveness. The rising temperatures in certain Western Balkan (WB) countries, like Northern Macedonia, present expanded opportunities for regions endowed by a relative abundance of water resources. However, this trend poses a threat to the trade competitiveness of certain early vegetable crops in Albania. At the same time, some core production areas for early vegetables, such as Saranda and Lushnje, are increasingly affected by drought and salinization;

Increasing temperatures will lengthen the production season in non-heated greenhouses, which constitute the majority of greenhouses in Albania. This extended season opens up opportunities for cultivating more profitable crops, such as winter tomatoes.

Export-oriented value chains are more exposed to the effects of climate change in terms of yields, quality and timing, considering that the export markets are more demanding and competitive than the local markets.

Based on the survey conducted by Imami et al. (2019), many agronomists feel incompetent to provide the right advice to farmers in the context of changing climate conditions.

Although there is a general perception that climate changes have only negative impacts, some positive effects have also been observed. For example, some F&V production activities can be anticipated or protected crops need less or no heating in periods of the year that used to be colder, implying new market opportunities, especially for crops for which international competition is particularly stiff, such as greenhouse tomatoes.

In two recent surveys (Zhllima et al. 2022; Imami et al, 2019) a panel of experts was consulted on the expected climate change impact on vegetables in

[4] For instance, the rising incidence of pests and simultaneous stricter MRL regulations resulted in a significant decrease in the size of pear orchards in Emilia-Romagna, a region that was previously one of the primary European clusters for pear production.

protected crops and melons and watermelons production (obtained both in protected crops and open field). The main outcomes of the surveys are summarized in table 3.6 below.

TABLE 3.6: EXPECTED IMPACT OF CLIMATE CHANGE ON PROTECTED CROPS AND MELON & WATERMELON PRODUCTION

Share of respondents

Expected Impact Product category	High	Medium	Low
Greenhouse vegetables	10%	64%	27%
Melons and watermelons	10%	74%	23%

Source: Own elaboration on Imami et al (2019) and Zhllima et al. (2022)

Among those anticipating a climate change impact on greenhouse vegetables, 16% believe the impact will be positive, while 28% of respondents expect a negative effect.

Most of the potential impacts are based on forecasts made in the last two decades. To identify micro-regional vulnerability and adaptation patterns, more data is required, including observations of climate shock occurrences and their impact on both production and socio-economic conditions.

4

MAIN MARKET REQUIREMENTS

As described in the QI4VC methodology (UNIDO, 2022), market operators and exporters must ensure the highest product quality to comply with market requirements (mandatory and voluntary standards) to avoid potential rejections and better integrate into global markets. In order to achieve this, the availability and accessibility of QI services for the private sector are of primary importance. This chapter outlines the mandatory legal requirements and the voluntary requirements (standards and certification programmes) related to quality and provides recommendations for the Albanian QI system with relevance to the selected value chain.

4.1. GENERAL ASPECTS AND DEFINITIONS

General aspects

The first distinction to be made is between; i) ***requirements***, which are related to mandatory legal provisions and, ii) ***voluntary standards and certification programmes***, which are related to quality requirements or schemes introduced by the trading counterparts.

Main relevant marketing and product ***requirements*** broadly refer to two categories:

1. Documentation-related quality, which includes all requirements related to:

1.1 Consumer safety along the supply chain, including handling, transport and storage;

1.2 Marketing and market access;

1.3 Labelling and provision of information to consumers or users

1.4 Items in contact with the product, including packaging;

1.5 Phytosanitary controls (for plant products).

2. Administrative documentation not related to QI, mostly consisting of rules related to fiscal issues and trade fiscal barriers.

The categories of requirements related and not related to QI are the same across all markets; however, the specific requirements can significantly vary based on the destination market. Even within the EU market, Member States may establish additional and stricter requirements. Such additional requirements cannot be less stringent that the already established ones. Other countries with legislation aligned to the EU ***acquis,*** like Switzerland, have specific and EU-harmonized requirements, yet operate under an independent legal framework.

Voluntary standards are intended to adopt stricter or additional features as compared to legal requirements.

Certification programmes can be used to certify the compliance of a given product with a set of requirements and/or with voluntary standards. Certification programmes involve a protocol which is usually based on control points and accredited/licensed auditors that regularly verify the compliance of certification subjects with the protocol.

Categories of QI-related requirements

1. *Consumer safety* covers various aspects of food and non-food products. In the case of F&V, only rules for food products are applicable.
2. *Traceability* includes the tools to trace a product along the entire supply chain, based on the "one step back – one step forward" recording approach; it includes the TRACES platform to facilitate trading while standardizing and sharing documents and information.
3. *Marketing requirements* refer to the quality attributes of a product that must be met to ensure compliance with market access criteria[5].
4. *Labelling, including elements for traceability*; these regulations are relevant to the information to be provided to the buyer.
5. *Items and materials in contact with the product, including packaging*, refer to the characteristics of materials and items used along food supply chains, such as transport containers, processing machinery and packaging materials. Those items and materials or the contact between those materials and the product stored, handled or processed must not cause harm to consumers and minimise impact on the environment.
6. *Phytosanitary or veterinary controls*, for live plants and animals and food products, are aimed at managing pathogens that affect plants and animals; pathogens associated with food-borne diseases are regulated as part of food safety.

When dealing with food products, the most important distinction is between food safety and food quality requirements.

[5] In the case of fruits and vegetables: size, articulated in classes; shape; ripeness; skin damage and other defects in colour; points of rotting; tolerance.

BOX 3: DEFINITION OF FOOD SAFETY AND QUALITY

Food safety and food quality are the key terms used in this chapter. FAO and WHO (2003) define them as follows: "Food safety refers to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer. It is not negotiable. [Food] Quality includes all other attributes that influence a product's value to the consumer. This includes negative attributes such as spoilage, contamination with filth, discoloration, off-odours and positive attributes such as the origin, colour, flavour, texture and processing method of the food. Factors that contribute to potential hazards in food include improper agricultural practices; poor hygiene along all stages of the food chain; lack of preventive controls in food processing and preparation operations; misuse of chemicals; contaminated raw materials, ingredients and water; inadequate or improper storage, etc. Specific concerns about food hazards have been usually focused on: microbiological hazards, pesticide residues, misuse of food additives, chemical contaminants, including biological toxins and adulteration. The list has been further extended to cover genetically modified organisms, allergens, veterinary drug residues and growth-promoting hormones used in the production of animal products."

Source: FAO and WHO (2003)

Only the first three components are pertinent to QI. Even though certain documents such as the proof of origin (certificate of origin) have the primary function of satisfying administrative requirements, they also contribute to the functionality of the traceability system.

In addition to regulations, which are translated into mandatory requirements to be complied with, almost all buyers top up the legal requirements with additional requirements, which can be translated into formalized standards or contractual agreements.

An increasing number of producers are also voluntarily adopting different standards related to the adoption of good practices associated with the value chain (e.g. GlobalGAP IFA), production regimes (e.g. BioSuisse) or good practices related to a specific topic (e.g.VeganOk).

Compliance with the requirements related to QI is only partially associated with the mandatory documentation; in the EU, the Swiss Confederation and the US, only the phytosanitary requirements are associated with mandatory certification. Although most requirements, especially those dealing with food safety, must be complied with, there is no need for documentary evidence.

4.2 REQUIREMENTS FOR EXPORT TO EU COUNTRIES

4.2.1 Key features and trends

The analysis of key requirements is focused on the products selected in the prioritisation matrix. Considering that the main markets are the EU and Switzerland, a more detailed description of the requirements is provided for these two markets. This analysis is divided in three parts: i) an introductory part, outlining the key issues of the legal and additional requirements to export food products in EU countries and the trends in the evolution of legal and additional requirements and voluntary certifications; ii) an overview of the legal requirements for export in the EU countries common to fresh F&V, divided by category of requirement (food safety, phytosanitary, labelling, marketing etc.), iii) provisions and requirements for organic production and most common voluntary certifications utilised by Albanian fresh F&V producers and exporters.

A wider presentation of the most common standards and certifications utilised in the fresh F&V sectors in Western Balkan countries is provided in Annex 3.1

With regard to this chapter, two final disclaimers should be also taken into account:

1. It is crucial to review and update the information regularly, as regulations may become stricter based on new insights and periodic re-evaluations. The information presented in this document reflects the situation as of the beginning of 2023.
2. This report mainly covers the EU requirements at the Community level. For many aspects, there are differences depending on the country of destination.

EU legal requirements and additional requirements from buyers as an international benchmark

EU requirements are considered a benchmark: full compliance with these requirements generally allows export to most other markets. Legal requirements for contaminants and residuals are particularly strict and, in many cases, buyers demand even stricter parameters[6].

In other cases, practices that are legally permitted, such as irradiation, are not preferred by consumers, so buyers do not accept products manufactured by using such practices.

Generally speaking, for the exporters, the most difficult requirements to comply with are those established by the actual buyer, which are frequently stricter than the legal standards. In some cases, certain certifications, though inherently voluntary, have gained such widespread acceptance that they are practically becoming obligatory for assuring buyers.

The EU has established a complex QI and several tools to control the enforcement of legal requirements. Repeated non-compliance with the European food legislation by a particular country may lead to stricter import conditions or even suspension of imports from that country. These stricter conditions usually include a requirement for a health certificate and an analytical test report for a certain share of shipments from specific countries. Products originating from countries that have shown repeated non-compliance are enlisted on a list included in the Regulation on the increased level of official controls on imports.

Nevertheless, only a small number of the products imported and marketed in Europe are subject to official (physical) controls, as the primary responsibility for their safety lies with commercial operators (e.g. importers). *Therefore, importers conduct most of the checks required to ensure that the products are safe, and they may also demand certification and other proof of quality and safety (CBI, 2023).*

In addition to border inspections, official food controls include regular inspections that can be carried out at all stages, from import to retail sales. In case of non-compliance with the European food legislation, individual cases are reported through the Rapid Alert System for Food and Feeds RASFF (see below).

Evolution and trends in EU legal requirements and voluntary standards for the import of fruits and vegetables.

The legal requirements for the import of all food products into the EU are frequently modified and are becoming increasingly strict, in line with EU policies on food safety. In particular, the rules on contaminants (mainly metals) and residues (mainly PPP) are expected to become more stringent as a result of the application of the "*Farm to Fork*" component of the *EU Green Deal* policy.

The *Farm to Fork* principles set a clear and restrictive trend for the evolution of the legal requirements to access the EU markets.

Exporters to the EU are not obliged to immediately adopt the farm-to-fork principles; however, the adoption of this approach will help in the approximation to the EU market in the near future.

The EC Code of Conduct and the voluntary introduction of environmentally and socially sustainable practices. The European Commission has drafted a Code of Conduct to encourage environmentally and socially sustainable practices among food manufacturers and retailers. It comes as one of the first deliverables of the Farm to Fork Strategy which aims to improve the overall sustainability of the European food system.

[6] For example, a major German supermarket chain requires its F&V suppliers not to exceed 33% of legal requirements for residuals.

BOX 4: OBJECTIVE OF THE EU CODE OF CONDUCT

The EU Code of Conduct consists of 7 aspirational objectives, aiming for more sustainable and healthier food choices:

1. Healthy, balanced and sustainable diets for all European consumers, contributing to reversing malnutrition and diet-related non-communicable diseases (NCDs) and reducing the environmental footprint of food consumption by 2030
2. Prevention and reduction of food loss and waste by supporting improved food management at household level (e.g., promoting more mindful buying) or minimising waste and reducing losses in operations and across the value chain
3. A climate-neutral food chain in Europe by 2050 by reducing energy use and applying sustainable bioeconomy-based solutions while contributing to a circular economy
4. An optimised circular and resource-efficient food chain in Europe by improving resource efficiency within own operations (e.g., water management practices, waste water quality and water recovery and reuse) and enhancing the sustainability of food and drink packaging
5. Sustained, inclusive and sustainable economic growth, employment, and decent work for all by improving resilience and competitiveness (e.g., increasing research and innovation in food sustainability), supporting a skilled workforce, and providing safe and inclusive workplaces for all
6. Sustainable value creation in the European food supply chain through partnership by fostering partnerships that enhance the resilience and competitiveness of the supply chain (e.g., engaging in joint pre-competitive research and innovation like co-innovation of products/processes/technology) and stimulating sustainable production
7. Sustainable sourcing in food supply chains by transforming commodity supply chains (e.g., encouraging the uptake of scientifically robust sustainability certification schemes for food) and improving social performance in food supply chains

Source: Authors' own elaboration

Every company (regardless of its size) involved in food activities or related to food processes can adhere to the EU Code of Conduct. Stakeholders wishing to endorse the Code are required to make a long-term commitment to it (at least until 2025) and to provide an annual report in April. Endorsement information will be made available to the public and each stakeholder will present their progress at least once a year on a specific and dedicated platform.

Increasing number of voluntary standards and supermarkets' private standards.

A trend that has been growing since the end of the last century, in parallel with the growth of supermarket chains in the market, is the request of these latter outlets for additional requirements included in their quality standards, which are used in addition to other international certifications. Whilst several of these standards are for internal use only in the trading relations between the supermarket chains and the suppliers, others, such as Tesco Nurture, are released for certification and included in existing international certification schemes.

These standards have evolved in line with the evolution of the concept of sustainability, thus increasing their scope from the production side (GAP/IPM, GMP, HACCP) to a wider set of rules covering environmental and social issues. The main aim of these schemes is to provide a guarantee to customers that the food products from the supermarket chain suppliers are grown in an environmentally responsible way. For this purpose, these schemes are often based on the implementation of more restrictive requirements than those established in the relevant legislation, i.e. regarding the use of plant protection products and the upper residue limits of plant protection products in food products (i.e., fresh produce). For example, these protocols may establish a maximum percentage of MRL with reference to those stipulated by the law, and may also define a maximum count of pesticide residues, although within the MRL, as it is common among German supermarket chains (for instance: maximum five residues).

As an example, suppliers of fresh produce for Tesco (a UK supermarket chain with international operations) may be required to submit a list of the PPPs that are proposed for use on crops that will be grown for the supermarket chain. This list is reviewed to make sure that all proposed PPPs comply with legal and Tesco requirements, including the private scheme of the supermarket. Where hazardous PPPs are declared, suppliers and their growers may be provided with

supermarket-specific requirements and restrictions, alongside access to guidance on how the risks can be mitigated. Consequently, the supermarket chain may establish effective monitoring and recording of PPPs, checking where PPPs are proposed for use within the supermarket supply chains.

The most common voluntary standards and supermarket private standards applicable to the fruits and vegetables subject to this study are presented in **subchapter 4.3.5** and **Annex 3.1**.

4.2.2 Legal requirements for F&V

4.2.2.1 Overall

Table 4.1 below provides a synopsis of the topics related to requirements for export to the EU of fresh fruits and vegetables, the relevant key issues and the reference legal provisions.

TABLE 4.1: F&V EXPORT TO THE EU: REQUIREMENT CATEGORIES, KEY ISSUES AND LEGISLATION

Requirement category	Key issues	Reference norms
Traceability	» *one-step back one-step forward* principle, » Labelling with an indication of origin and production lot » Proof of origin for non-EU producers	Reg. EC/178/2002 [7] Commission Implementing Reg. (EU) 931/2011
Food safety		
Food Hygiene	HACCP application	Reg. (EC) 852/2004 (EC, 2004)
Contaminants	» Metals » Chemicals » Toxins	Reg. (EC) 1881/2006 (EC, 2006)
Residuals	PPP, other chemicals	Reg. (EC) 396/2005 (EC, 2005)
Microbiological	» Selected microbiological contaminations dangerous for human health	Reg. (EC) 2073/2005
Foreign bodies	» Soil, insects, dirt	No specific regulations, buyers' standards apply.
Labelling	» Information about product, origin, traceability, marketing standard.	Reg. EU 1169/2011 (EC, 2011)
Phytosanitary	» Certificate* » Additional documentation for specific products and origin.	Reg. (EU) 2019/2072 (EC, 2019) Additional regulations for specific contingencies.
Marketing	» Application of EU and/or UNECE quality standards.	Reg. (EU) 543/2011
Other aspects	1. Irradiated food: "Irradiated food" indication on the label. 2. Novel food: applicable to products not commonly in commerce before 1997 3. Products contaminated by radioactivity	Directives 1999/2/CE and 1999/3/CE Reg. (EU) 2015/2283

Source: Own elaboration

[7] Specific and additional rules are foreseen for products of animal origin, animal feed and live plants

4.2.2.2 Traceability [8]

Reference Legislation

Base regulation	Regulation (EC) No 178/2002 – General Law on Food.
Application	Commission Regulation (EU) 931/2011 on the traceability requirements set by Regulation (EC) No 178/2002.

Description

"Under EU law, "traceability" means the ability to track any food, feed, food-producing animal or substance that will be used for consumption, through all stages of production, processing and distribution. Traceability is a way of responding to potential risks that can arise in food and feed, to ensure that all food products in the EU are safe for European citizens to eat" (EC, 2023a). The Commission Implementing Reg. (EU) 931/2011 details how traceability is implemented.

[8] Additional information provided at the General Food Law factsheet on traceability. In https://food.ec.europa.eu/system/files/2016-10/gfl_req_factsheet_traceability_2007_en.pdf

BOX 5: APPROACHES TO GUARANTEE TRACEABILITY

Traceability is very important for the protection of consumers, especially when food is found to be faulty. To ensure traceability:

- Food businesses need a comprehensive system of traceability so that information can be easily accessed and targeted withdrawals can happen, if needed, without wider disruption of the system
- Food businesses, including importers, must be able to identify at least the immediate supplier of a product or lot of products and the immediate subsequent consignee (one step back - one step forward principle). Records must be kept showing the correspondence between the exported lot and the sources of the supply (companies or individuals) of the products included in that lot
- Traceability is also embedded in labels, which must provide adequate traceability information, including the lot and origin
- As part of the administrative documentation required for imported products, a "proof of origin" (a certificate released by the Chamber of Commerce) must be provided. This document serves the purpose of custom and rules of origin implementation, and it also contributes to traceability

Source: Authors' own elaboration

The EU has published guidelines that require business operators to document the names and addresses of the supplier and customer in each case, as well as the nature of the product and date of delivery. Operators are also encouraged to record information on the volume or quantity of a product, its batch number, if any, and a more detailed description of the product, such as whether it is raw or processed.

Nowadays, the majority of traceability information, transformed into optical codes (such as barcodes or QR codes), *is provided on the packaging of the product. This is not a legal requirement, but a common business practice.*

In addition to the general requirements, there are specific provisions for certain categories of food products, so that consumers can identify their origin and authenticity. Special traceability rules are also provided for Genetically Modified Organisms (GMO).

With reference to traceability, it is crucial to clarify the relation between QI stakeholders, their relevant responsibilities and the actions to be taken when a risk is identified.

TABLE 4.2: STAKEHOLDERS, RESPONSIBILITIES AND ACTIONS FOR TRACEABILITY IMPLEMENTATION IN THE EU LEGAL FRAMEWORK

Stakeholder	Overall responsibilities	Actions when a risk is identified
Food and feed businesses	Identify and document information on products "one step forward and one step back" in the food chain	» Immediately withdraw the affected products from the market and, if necessary, recall them from consumers » Destroy any batch, lot or consignment of feed that does not satisfy food safety requirements » Inform the competent authorities of the risk and of the actions it has taken
Member State authorities	» Monitor production, processing and distribution of food and feed products to ensure that operators have traceability systems in place » Fix and enforce appropriate penalties for operators that do not meet EU requirements on traceability	» Ensure that operators are fulfilling their obligations » Take appropriate measures to secure food safety » Trace the risk both upstream and downstream along the food chain. Notify the Rapid Alert System for Food and Feed (see box)
The EU	» Establish sector-specific legislation on traceability, as appropriate » The Food and Veterinary Office of the European Commission carries out regular inspections to ensure that food and feed operators are meeting food safety standards – including the implementation of traceability systems	» The European Commission alerts members of the Rapid Alert System for Food and Feed of the risk » Requests information from operators to enable traceability and coordinates the intervention of national authorities » May impose import/export restrictions

Source: EC – Traceability factsheet

For a practical implementation of traceability in relation also to food safety functions, two important tools were established: i) the TRACES platform, described herein below, which serves for enhancing traceability and facilitating international trade and ii) the RASFF alert system, which utilises traceability when food safety hazards are identified. The RASFF alert system, as part of food safety tools, is described in **subchapter 4.2.2.3** below.

The TRACES platform (EC, 2023a)

TRACES – Trade Control and Expert System – is the European Commission's online platform for sanitary and phytosanitary certification required for the import of animals, animal products, food and feed of non-animal origin and plants into the European Union, and the intra-EU trade and EU exports of animals and certain animal products. The platform is a tool to ensure:

» Traceability (monitoring movements of consignments, both within the EU and from non-EU countries);

» Information exchange (enabling trade partners and competent authorities to easily exchange information on the movements of their consignments and significantly speeding up administrative procedures);

» Risk management (rapidly responding to health threats by tracing the movements of consignments and facilitating the risk management of rejected consignments);

When products are imported into the EU or traded within the EU single market, TRACES supports the issuance of official certificates, records official controls, and manages route planning swiftly and efficiently through an online platform. The complete digitalisation of the TRACE platform rendered the traditional phytosanitary certificate obsolete: the electronic certification capability of TRACES NT enables both EU and non-EU authorities to digitally stamp official documents and certificates. National competent authorities and economic operators use TRACES to complete official certificates online, while control authorities at the EU border or at the final destination check the consignments and their accompanying documents to permit their entry into and/or transit through the EU. In this way, the control authorities at the EU border at the destination are pre-notified of the arrival of a consignment and can plan their controls accordingly.

Registration on the TRACES platform is obligatory for EU

entities involved in handling relevant food products, whereas it is optional for non-EU entities. However, registration on the platform provides continuous access to the most up-to-date formats of phytosanitary certificates and other export documents and greatly facilitates the process of border inspections.

4.2.2.3 Food safety

Overall aspects

Food safety issues are the most complex and articulated component of the legal requirements for food exports in the EU. They include prescriptions, controls and information tools related to the following aspects: i) Food hygiene, ii) contaminants, iii) residuals, iv) microbiological factors and, v) control of foreign bodies, which also falls under quality and phytosanitary control.

A complex QI and quality control architecture is established for the implementation of controls related to food safety. The main QI at the EU level is EFSA, the European Food Safety Agency. To fulfil its mission, EFSA has developed, inter alia, two significant tools that will be addressed throughout this chapter: i) *The coordinated EU multi-annual control programme*. for controlling, in all member states, the various food safety parameters along the entire supply chain and, ii) *the Rapid Alert System for Food and Feed – RASFF* for taking prompt action in case of detection of any food safety hazards or breach of EU food safety rules.

Rapid Alert System for Food and Feed (RASFF) (EC, 2023c)

To make use of traceability and as part of the food safety tools, **the Rapid Alert System for Food and Feed** (RASFF) was established to ensure the exchange of information between member states, enabling rapid responses by food safety authorities in the event of public health risks arising from the food chain.

RASFF was established to enable food safety authorities to rapidly exchange information on health risks arising from food or feed so that they can take immediate action. Information exchanged through RASFF can lead to products being promptly recalled from the market. While access to RASFF is restricted solely to the authorities of member states and the European Commission, summarized information is made available to the general public through the RASFF Window, an interactive and searchable online database.

Food Hygiene

Reference Legislation

Base regulation	Regulation (EC) No 178/2002 – General Law on Food
Implementation	Regulation (EC) 852/2004 on the hygiene of foodstuff

Description

Regulation (EC) No 852/2004 defines food hygiene as "the measures and conditions necessary to control hazards and to ensure fitness for human consumption of a foodstuff, considering its intended use". This regulation applies across the entire food chain (from farm to fork) and assigns the main responsibility for compliance to food business operators.

The leading concept is that, to avoid food contamination from unwanted substances, it is necessary to maintain excellent hygiene practices along the entire supply chain. The regulation is structured around six key topics:

1. *General obligations of food business operators*, including 1.1) general and specific hygiene requirements, 1.2) *Hazard Analysis and Critical Control Point (HACCP)* implementation for primary producers and processors, 1.3) *Food business registration and approval.*
2. *Guide to good practices*, including personal hygiene and training.

All imports must comply with the provisions related to the general obligations. The most relevant aspect for exporters is the implementation of HACCP principles; this provision, which is also in line with the Albanian Law on Food, is a pre-requisite for exporters and can be verified through a range of controls such as analyses for microbiological contamination, presence of foreign bodies in the product, etc.

Both the EU regulation and the Albanian law set the implementation of HACCP as a requirement to be complied with, *but do not require a compliance certification, which is voluntary.*

Part A of Annex I of the above regulation lists the general hygiene provisions for primary production (and associated operations) which – in terms of plant production – include the maximum avoidance of contamination by means of clean facilities and equipment, hygienic production, clean water, healthy and trained staff, prevention of contamination by animals and pests, appropriate storage and handling of waste and hazardous substances, correct use of plant protection products and biocide and consideration of the analyses performed on plants or other samples with importance to human health.

Primary producers have to keep records, particularly on the use of plant protection products and biocide, the occurrence of pests and diseases that may affect food safety, and the results of any relevant analyses carried out.

Annex II lists the general hygiene requirements for all food business operators.

Contaminants[9]

Reference Legislation

Base regulation	Regulation (EC) No 178/2002 – General Law on Food Council Regulation 315/93 EEC
Application	Commission Regulation (EC) 1881/06 setting maximum levels for certain contaminants in foodstuffs [10], as amended.

Description

The basic principles of the EU legislation on contaminants in food are laid down in Council Regulation 315/93/EEC and specified in Reg. EC 1881/06

Contaminant levels should be kept as low as can reasonably be achieved, applying good practices for primary production and manufacturing (GAP and GMP).

Maximum levels are established for certain contaminants (EC, 2006). These limits vary among different fresh fruits and vegetables. The legal requirements for contaminants *relevant to fresh F&V included in this study are the following*:

TABLE 4.3: CONTAMINANTS LIMITS IN SELECTED F&V: METALS AND CHEMICALS

Contaminant / Product	Metals		Chemicals
	Lead mg/kg	Cadmium mg/kg	Perchlorate mg/kg
Fruits and Vegetables			
Tomatoes	0.05	0.05	0.05
Sweet peppers	0.05	0.05	0.05
Cucumbers	0.05	0.05	0.05
Melons	0.10	0.05	0.05
Strawberries	0.20 (*)	0.03	0.05

Source: Reg. (EC) 1881/06; consolidated text 01/01/2023 (EC, 2006)

Note: Strawberries are not specifically indicated in Reg (EC) 1881/06; if classified in EU regulation as vegetables, the limit is 0.05 mg/kg; if classified as berries, is 0.20. CBI (2021) indicates lead limits of 0.20 mg/kg

The permitted maximum levels are frequently updated; moreover, buyers often require lower levels of both contaminants and PPP residues as compared to legal requirements.

There is no maximum level of contaminants established for nitrates in the products under consideration; however, a limit has been set for lettuce and various other leafy vegetables.

There is no maximum level of contaminants established for mycotoxins in the products under consideration; however, such a limit is set for dried fruits.

Residuals

Reference Legislation

Base regulation	Regulation (EC) No 178/2002 – General Law on Food Regulation (EC) 825/2004
Application	Regulation (EC) 396/2005 on maximum residue levels of pesticides in food and feed of plant and animal origin

Description

Level of residuals higher than MRL is a matter of major concern for Albanian F&V export in the EU.

Regulation (EC) 396/2005, also known as "MRL regulation", sets the Maximum Residue Levels – MRL in food products for some chemicals which are harmful to human health. For this purpose, the European Food Safety Authority (EFSA) assesses the safety for consumers based on pesticide toxicity, the maximum levels anticipated in food and the diverse diets of Europeans.

The regulation harmonizes and rationalizes the previous rules set at EU and national level.

MRLs apply to 315 fresh products and also to these same products after processing, with adjustments made to account for dilution or concentration that may occur during the process. The legislation covers pesticides currently or formerly used in agriculture in or outside the EU (around 1,100) and other kinds of chemicals used for other purposes, e.g. in food product sterilization.

A general default **MRL of 0.01 mg/kg** is applicable in cases where a specific pesticide is not explicitly mentioned. However, there are many substances for which MRLs are established.

Due to the very large number of MRLs applied to any category of products (in the order of tens of thousands), an *EU pesticide database* was established.

[9] A full list of contaminants included in Reg. EC 1881/06 is provided in https://food.ec.europa.eu/safety/chemical-safety/contaminants/legislation_en

[10] Text with EEA relevance

BOX 6: THE EU PESTICIDE DATABASE

The database is available online (EC, 2023d) and is open to the public. It allows users to search for information on active substances used in plant protection products, Maximum Residue Levels (MRLs) in food products, and emergency authorisations of plant protection products in Member States. Searches can be made in accordance with the following categories:

1. *Active substances*. The database contains information on active substances (including those that are low-risk or candidates for substitution) and basic substances, whether approved or not approved in the EU. Additionally, the database incorporates certain safeners and synergists that have not yet undergone assessment at the EU level.
2. *Food products*. Users can search for a particular food product (e.g. tomatoes) and retrieve the MRLs for all pesticide residues that apply to that product.
3. *Pesticide residues and the MRLs that apply to such residues* in food products. Users can select a particular pesticide residue in specific food products and find the current or historical MRLs that legally apply. Users can also download data on MRLs.
4. *PPP Emergency Authorisations in EU Member States*. Member States are fully responsible for granting emergency authorizations, so the database only includes information provided by the Member States.

Source: Authors own elaboration

Farmers, traders and importers are responsible for food safety, which includes compliance with MRLs. Member State authorities are responsible for the control and enforcement of the MRLs. To ensure that this is done adequately and uniformly, the Commission has three instruments in place:

1. *The coordinated EU multi-annual control programme* sets out for each Member State the main pesticide-crop combinations to be monitored and the minimum number of samples to be taken. Member States are obliged to report the results, which are published in an annual report.
2. *EU Reference Laboratories* provide coordination, staff training, development of analytical methods and preparation of tests to evaluate the skills of various national control laboratories.
3. *The Food and Veterinary Office of the Commission* carries out inspections in the Member States to assess and audit their control activities.

If pesticide residues are found at a level of concern for consumers, the Rapid Alert System for Food and Feed (RASFF) disseminates this information and measures are taken to protect the consumer.

Microbiological

Reference Legislation

Base regulation	Regulation (EC) No 178/2002 – General Law on Food Regulation (EC) No 825/2004
Application	Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs

Source: Authors' own elaboration

Description

The regulation sets out two types of microbiological criteria that food businesses should comply with, as listed in its Annex I, namely: i) food safety criteria, and ii) process hygiene criteria.

As part of their procedures based on the HACCP principles and using good hygiene practices, food businesses at each stage of food production, processing and distribution, including retail, should ensure that:

» the supply, handling and processing of raw materials and foodstuffs under their control is carried out in compliance with the process hygiene criteria;

» the food safety criteria that apply throughout the entire shelf-life of the products should be attainable under reasonably foreseeable conditions of distribution, storage and use.

For each food category, the regulation and its annex specify the test details:

» Types of micro-organisms that should be tested;

» Sampling plan (the number of units to be tested, frequency, etc.);

» Limits for each sample unit;

» Analytical reference method to be used;

» The stage in the manufacturing process at which the criterion applies, (e.g. at the conclusion of the manufacturing process or at the point in the process when the count of a particular microorganism is expected to be at its highest);

» Actions to be taken in case of unsatisfactory results.

All fresh fruits and Vegetables are at risk of microbiological contamination, particularly in the post-harvesting and transportation segments of the supply chain. These risks are controlled through appropriate post-harvest practices. Certain practices, such as fumigation, are permitted for exports in the USA, but not in the EU.

No particular issues related to microbiological contamination have been reported with reference to exported Albanian fresh F&V. Pre-cut F&V and products packaged for final consumption *represent the segment for which the risks related to microbiological aspects of food safety are higher*, as several hazardous pathogens can emerge in the process of collection, preparation, processing (cutting, selecting, drying), handling, storage and transport. Also, proliferation of micro-organisms can generate residuals in the product.

In order to deal with these risks, specific treatments and relevant equipment should be used. Most commonly, ozone treatment or washing with chlorine oxide are used for fresh F&VS; however, the use of chlorine oxide is not allowed in some countries such as Germany, Denmark and Belgium.

Although irradiation is legally allowed under the EU legislation, it is generally not favoured by buyers and consumers due to the requirement that the product label must indicate if the product has been irradiated.

Fumigation with methyl bromide and ethylene oxides is banned (since 1991) and fumigation with propylene oxide is allowed, but its use is not a preferred pasteurization practice.

The use of ethylene oxide is considered particularly dangerous, to the extent that it is included among the substances for which Regulation (EC) 396/2005 establishes a Maximum Level of Residues (MLR).

4.3.2.4 Foreign bodies and matters

Foreign matter is defined as any kind of external contaminant introduced to a food product at any stage of its production or distribution. It includes dead and live pests and larvae (e.g. flies, mice etc.), soil, excreta, stones, hair, fingernails, bandaids, bits of cleaning cloth, fragments of plastic or metal, cardboard, glass, metal shards, etc.

The presence of foreign matter in fruits and vegetables can pose risks to human health and phytosanitary concerns (e.g. the presence of certain live pests). Even in situations where there are no hazards to consumers, the presence of foreign bodies can impact the quality to such an extent that the product cannot be traded or, if traded, can be rejected.

No major issues are reported with regard to the presence of foreign bodies in exported Albanian F&V.

In order to prevent contamination with insects, non-EU suppliers should implement preventive measures, such as heat treatment or fumigation, using only those fumigants approved in the destination market. Using optical, metal and similar detectors is also recommended to prevent contamination with foreign bodies. However, physical sorting and manual inspection are always recommended, even if detectors are installed.

4.2.2.4 Phytosanitary

Reference Legislation

General rules:	Reg. (EU) 2016/2031 on protective measures against pests in plants
Implementation:	Implementing Reg. (EU) 2019/2072 (EC, 2019); Reg. (EU) 2016/2031 (EC, 2016).

Source: Authors' own elaboration

Description

The legislation is continuously updated and new versions of the regulation are released every three to six months[11].

Phytosanitary certification[12] is required for the import of all plants, with few exceptions[13]. Specific provisions are outlined for propagation material, wood and seeds.

The regulation also contains a list of all plants/foods of plant origin that are banned in the EU (Annex VI) and specifies those plants or parts of plants for which additional indications in the phytosanitary certificate (Annex VII) are required. At present (Feb 2023), no fruits or vegetables from Albania are banned. *Tomatoes are among those products that require additional indications*.

Phytosanitary certificates should provide indications that the product is: i) properly inspected, ii) free from pests[14] and iii) in line with the provisions included in Reg. (EU) 2019/72

Additional declarations to be indicated in the phytosanitary certificates for exports to the European Union are required by Article 71.2 of the Plant Health Regulation (EU) 2016/2031.

[11] The last version of Reg. (EU) 2019/2072 is dated 14 July 2022
[12] The reference legislation for phytosanitary certificates is based on Article 72(1) of Reg. (EU) 2016/2031. **A certificate template is provided in Annex V to the Regulation.**
[13] Those listed in Part C of Annex XI to Reg. (EU) 2019/2072
14 Including all quarantine and non-quarantine regulated pests. In practice, the certificate must indicate that the product is free from all pests

4.2.2.5 Marketing requirements

Reference Legislation

General rules:	Reg. (EU) 1308/2013 (EC, 2013).
Implementation:	Implementing Reg. (EU) 543/2011 (EC, 2011).

Source: Author's own elaboration

Description

Marketing standards are those that refer to the appearance and quality of fruits and vegetables: ripeness, shape, size, cleanliness, uniformity of colour, absence of skin damage, etc.

The European Union has a long tradition in the adoption of marketing standards for fresh fruits and vegetables. The matter is regulated by the Commission Implementing Regulation (EU) No 543/2011 of 7 June 2011 laying down detailed rules for the application of Council Regulation (EC) 1234/2007 in respect of fruits and vegetables and processed fruit and vegetables sectors. The marketing standards (art. 3 Reg. 543/2011) are divided into two categories:

1. Part A General marketing standards.
2. Part B Specific marketing standards.

General marketing standards apply to melon and watermelon, cucumbers and gherkins. Specific marketing standards apply to tomatoes, peppers and strawberries.

In practice, melon and watermelon, cucumbers and gherkins should satisfy only the minimum requirements and the identification of the country of origin of the crop, whilst tomatoes, peppers and strawberries should additionally satisfy the full set of requirements, including those related to quality class (Extra, Class I and Class II) and size.

Whenever general or specific standards are not set by the implementing regulation (Reg. (EC) 543/2011), the UNECE standards apply[15].

Sample conformity checks are made at the border, before the products enter the customs territory of the EU. However, "In certain third countries which provide satisfactory guarantees of conformity, pre-export checks may be carried out by the inspection bodies of those third countries. Where this option is applied, Member States should regularly verify the effectiveness and quality of the pre-export checks carried out by third-country inspection bodies (EC, 2011). *At present, conformity checks for fruits and vegetables imported from Albania are performed by the importing country and cannot be performed in Albania.*

The preferred sizes sometimes vary between different European markets, but the quality is generally "Extra Class" or Class I. It is possible to find a market for Class II products in some low-cost market segments, for the processing industry or less formal segments.

Operators exporting to the EU are obliged to adopt the EU marketing standards: That is, the specific marketing standards for the ten crops (in our case, tomato, sweet pepper and strawberry) and the general marketing standards for the other crops. In these latter cases, the operators are free to choose whether to work with the EU or UNECE standard. In case of the latter, they should provide evidence of the fulfilment of the specific UNECE standard.

For visual examples and interpretation of marketing standards for various fruits and vegetables, it is possible to find online references produced by the EU Member States' sector association or refer to the OECD Fruits and Vegetables Scheme.

Conformity checks are carried out selectively by control bodies to ensure compliance with the marketing standards. These checks are based on risk analysis and concentrate on traders who are more likely to have goods that do not meet the standards. Controlled fruits and vegetables are accompanied with a certificate of conformity.

4.2.2.6 Labelling

Reference Legislation

General rules:	Regulation (EC) No 178/2002 – General Law on Food Directive 2000/13/EC
Implementation:	Implementing Reg. (EU) 1169/2011(EC, 2019) Reg. (EU) 543/2011

Source: Authors own elaboration

Description

In fresh fruit and vegetable labelling, a major distinction should be made between: i) products packaged for wholesale trading, also defined as botanical raw materials bulk shipment and, ii) products pre-packaged in sealed retail packaging[16]. Products pre-packaged in sealed retail packaging must fully comply with Reg. (EU) 1179/2011, as any other food product, while products packaged for wholesale trading are subject to different and less complex labelling rules.

However, many products have their own labelling specifications.. For this purpose, the EU has established a database on labelling requirements, detailing the relevant requirements for each product or category of products (EC, 2023e).

[15] Article 15 of Reg. (EU) 543/2011 stipulates "should be those as set out in the standards adopted by the United Nations Economic Commission for Europe (UNECE). Where no specific marketing standard has been adopted at Union level, products should be considered as conforming to the general marketing standard where the holder is able to show that the products are in conformity with any applicable UNECE standard"

[16] These products are intended for direct sale in retail outlets and cannot be touched or consumed without breaking the sealed packaging. For instance, strawberries sold in trays and enclosed in sealed plastic wrapping are pre-packaged for retail sale, while strawberries in the same trays, but not sealed (allowing them to be touched and for the contents of each tray to be altered) are considered as packaged for wholesale trade.

Fresh fruits and vegetables for food use in bulk packaging

Trade packages and cartons of *fresh fruits or vegetables* should contain the following information:

» Name and address of the packer or dispatcher;

» Name and variety (only if applicable)[17] of the product;

» Country of origin;

» Class and size (referring to the specific marketing standards);

» Official control mark to replace the name and address of the packer (optional);

» Certain post-harvest treatments, such as the use of anti-moulding agents in the post-harvesting treatment of citrus fruits, should be disclosed on the product's packaging. However, for the selected products, there are no authorized PH treatments that need to be indicated on the label.

For tomatoes, peppers, strawberries, and in general for the 10 products regulated by Reg. 543/2011 packed in open boxes, the following information, related to marketing standards, should be provided:

» Name and address of the packer or dispatcher;

» Country of origin;

» Quality class (Extra, Class I and Class II);

» Size (for Extra and I Class tomato and sweet pepper).

If applicable, information on voluntary certification should be provided in addition to the certification logo, such as the name of the inspection body and the certification number for organic certification or GGN if the product is certified under GLOBALG.A.P. standards.

Fresh fruits and vegetables pre-packed in sealed retail packaging

If the product is provided pre-packaged in sealed packaging for final consumption, more complete information should be provided in accordance with Reg.1169/2011; moreover, the information should be provided in the official language of the country where the product is sold or in a language that is understood by the customer. The following information should be provided:

» Common name of the product;

» Full name of the country of origin;

» Name and address of the producer, packager, importer, brand owner or seller (retailer) in the EU who places the product on the market, and the wording "Packed for:", if applicable;

» Net content in weight;

» Minimum durability – a best-before date;

» Lot number;

» Declaration of nutritional value (when mixed with other foodstuffs);

» The indication "Packed in protective atmosphere", if applicable;

» Additional information about the size, variety or commercial type and post-harvest treatment can be provided on the product labelling for products with specific marketing standards (CBI 2022a). The regulation specifies some specific post-harvesting treatments that should be indicated on the label; however, for the products subject to this study, there are no admitted post-harvest treatments that, if applied, should be indicated in the label.

Processed products (including dried fruits) should provide the following information:

» The name of the food;

» The list of ingredients;

» An indication of the ingredients that can cause allergies or intolerances;

» The quantity of certain ingredients or categories of ingredients, if made evident in the commercial denomination or claims on the label (QUID);

» The net quantity;

» The minimum durability indicated by the 'best before' or 'use by' date;

» Any special storage conditions and/or conditions of use;

» The name or business name and address of the responsible food business operator;

» The country of origin or place of provenance;

» Instructions for use;

» The nutrition declaration;

» Lot indication.

[17] Name pf product in case of closed boxes, where the content is not visible. Name of variety, only for specific produce: none of the six selected kinds of produce subject to this study fall into this specific category.

4.3 EU PROVISIONS FOR ORGANIC PRODUCTIONS AND MOST REQUIRED STANDARDS

4.3.1 Organic production

Demand for organic productions represents a significant and growing share of the total demand for fruits and vegetables in EEA countries[18]. The market share varies from around 1% to 6% in most eastern and southern European countries, and from 11% to 27% in Denmark, Switzerland, Sweden and Austria. In terms of total value, Germany and France are the largest markets for organic F&V (CBI, 2022b).

Organic production in most countries is regulated by law, i.e. a product should comply with the relevant legal requirements to be considered as organic; consequently, the choice to produce under an organic regime is voluntary, but production is subject to legal requirements. A product that does not comply with organic production legal requirements can still be exported to EEA countries, provided that it complies with the requirements for non-organic productions as detailed above.

The legal ground for organic produce in the EU is Reg. (EU) 2018/848, which came into force in January 2022. Several other delegated and implementing regulations are regulating the trade of organic products.

Third country producers should comply with the same set of rules as those applied in the European Union, in order to be allowed to export organic produce to EU countries. Main provisions include:

» Before a product can be certified as organic, producers are required to have used these production methods for at least 2 years throughout a conversion period;

» Producers should maintain soil fertility and water retention, avoid cross-contamination and use organic inputs and organic propagation materials (i.e. seeds and seedlings);

» In order to be certified as an organic farmer or exporter, it is necessary to be registered and certified through a *recognised control body* or an *accredited certifier*, for verifying compliance with the organic rules. Annual inspections and checks are carried out to verify continuous compliance with the legal requirements of the organic production regime;

After being audited by an accredited certifier, the producer or the exporter can use the EU organic logo (see Figure 4.1 below) on its products, along with the logo of the standard holder.

For many years, the challenge of having accredited certifiers has hindered the growth of Albanian organic production for export. The solution that was adopted involved establishing branches of recognized control bodies in EU countries, which conducted the processes of auditing, control, and certification.

FIGURE 4.1: THE OFFICIAL ORGANIC LABEL FOR ORGANIC PRODUCTS IN EUROPE

All organic products imported into the EU should have the appropriate electronic certificate of inspection (e-COI). These certificates are managed through TRACES (see **subchapter 4.3.2.1** above). Without an electronic certificate of inspection, products will not be released from their port of arrival in the European Union.

4.3.2 Standards and certifications most required in EEA fresh F&V markets

4.3.2.1 Categories of standards and certifications

Main standard categorization criteria relevant to this study are related to: i) scope and, ii) developer/ property. The table below shows a simplified structure of the main relevant standards presently in use, according to those two categories.

[18] EEA – European Economic Area is composed of EU Member States, plus Switzerland, Norway and Iceland

TABLE 4.4. SYNOPTIC TABLE OF THE MAIN RELEVANT ISO AND PRIVATE STANDARDS BY SCOPE AND DEVELOPER

Developer/property Scope	ISO	Private entities
Management	ISO 9000 family (5 st.), quality management system.	
Food safety	ISO 22000 family (4 st.).	Main ones: FSSC 22000
Overall supply chain		
Supply chain segments		*Main ones*: » GlobalG.A.P. family and adds-on (production and post-harvest) » LCG-BRCGS (processed food) » GFSI-IFS (food processing)
Companies and value chains functions	» ISO 27001 (Information security management system) » ISO 28001 (Security management system) » ISO 37001 (anti-bribery management system) » ISO 10002 (customer satisfaction) » ISO 22301 (business continuity, resilience)	
Sustainability	» ISO 45001 (Occupational Health & Safety) » ISO 14001 (Environmental management system) » ISO 50001 (Energy management)	Over 300 VSS; main ones: SMETA, Fairtrade, Rainforest, SA 8000, some Global G.A.P. adds-on, fair for Life, BSCI
Cultural values		» Halal (different by country and TIC) » Kosher (different by TIC)

Source: Own elaboration

The adoption of a standard by a company follows a complex process, which includes auditing, inspection and certification by an accredited independent and specialised subject, collectively known as TIC (Testing, Inspection, Certification) bodies. TIC bodies also issue certifications for compliance with legal requirements, such as the mandatory implementation of HACCP in most countries, but not certificates of compliance.

In some cases, private standards are developed by interest groups, such as GFSI (Global Food Safety Alliance), sometimes having the status of NGO (as Rainforest).

In other cases, large buyers, such as supermarket chains or retailers groups or associations have formalised their requirements into proprietary standards, typically developed in collaboration with the TICs.

In many cases, the TICs themselves have also developed proprietary standards.

A relatively recent trend is related to the proliferation of proprietary sustainability standards, i.e. standards aimed at the accomplishment of indicators related to UN Sustainable Development Goals, such as workers' safety, fair treatment of workers and suppliers, sustainable use of environmental values, and gender issues. These proprietary standards are collectively known as Voluntary Sustainability Standards. According to UNCTAD's definition, "*Voluntary Sustainability Standards (VSS) are private standards that require products to meet specific economic, social and environmental sustainability metrics. The requirements can refer to product quality or attributes, but also to production and processing methods, as well as transportation*".

VVS usually include several sustainability indicators related to different SDGs (e.g. Fairtrade). Over time, their development has aligned with the creation of ISO sustainability standards, usually focused on the management of a single sustainability aspect (e.g. ISO 450001 on occupational health and safety or ISO 50001 on energy management).

4.3.2.2 Demand for standards introduction and TIC services

Outcomes of field survey

The outcomes of the field survey proved that, even if international buyers of Albanian F&V often request additional or stringent parameters (e.g. MRL) as compared to legal requirements, there is a relatively small demand for certified implementation of proprietary standards.

However, there is good demand for organic products, so 28% of the sampled entrepreneurs are certified as organic producers (EU-Bio, BioSuisse, USDA Organic).

Finally, there is a significant demand for TIC services for HACCP certification, with 20% of the sampled companies holding this certification.[19]

Standards and certifications related to quality management and food safety management systems

The most known and adopted standards for quality management and food safety management systems are ISO 9001:2015 and ISO 22000:2018, respectively. However, since ISO 22000:2018 is not recognized by GFSI, many enterprises and buyers prefer the private FSSC 22000 standard, which is GFSI recognized and embeds ISO 22000:18, plus some of the technical standards (TS) of the ISO 22000 family and additional features specific to FSSC 22000.

Among the sampled enterprises, HACCP certification is rather common (20% of total). HACCP is not a standard, but a food safety management system which finds mandatory application in most food legal frameworks (including those in Albania and all countries targeted for export worldwide), but for which certification for compliance is not mandatory. HACCP principles and steps are embedded in ISO 22000:2018, along with several other features and components.

No enterprises among those included in the sample hold ISO 22000:2018 certification. However, 6% of the sampled enterprises hold FSSC 22000 certification, which is a private standard integrating ISO 22000:2018 as described below. The advantage of FSSC 22000 over ISO 22000:2018 is that FSSC 22000 is recognized by GFSI, while ISO 22000:2018 is not.

Another relatively popular private standard for food safety *and* quality is BRCGS: 10% of the sampled enterprises hold BRCGS certification

A short description of the above-mentioned four standards (ISO 9001 family, ISO 22000 family, FSSC 22000 and BRCGS) is provided in **Annex 3**.

VSS categories and overall EU buyer's demand for VSS

The Voluntary Sustainability Standards – VSS are standards linked to the Sustainable Development Goals; these VSS are commonly divided into nine subcategories, namely: i) Due diligence, ii) Credibility, iii) Traceability, iv) Food safety, v) Quality, vi) Sustainable business, vii) Human and Labour rights viii) Environment and climate change and, ix) Gender. Each VSS can be included in one or more categories, depending on its scope.

Some ISO standards, such as ISO 45001 (Occupational health & Safety), ISO 14001 (Environmental management system) and ISO 50001 (Energy management) are also linked to SDG, but cannot be classified as VVS according to the UNCTAD definition.

There is a large number of VSS. The ITC *Standards Map database* (Standard Map, 2022) considers over 300 VSS[20], many of which are part of VSS families, such as GlobalG.A.P., which is made of core standards, production-oriented specific modules (which generate a separate standard) and add-on modules. Some large buyers, such as supermarket chains, collaborate with auditing firms to develop their own standards (e.g. Tesco with GlobalG.A.P., with the Nurture 11.4 add-on module) Most VSS include modules for F&V [21]; however, few of them are commonly required in Western Balkans, the most common being summarized in **Annex 3**.

Multiple certificates may be required, each relevant to a specific stage of the supply chain. For example, it is possible that Global G.A.P is required for general agriculture practices (Global G.A.P. *IFA v6*) and, in addition, *IFS* for food safety, even if the same level of certification could be obtained with a Global G.A.P. add-on module, such as *Produce Safety Assurance* and/or *Product Handling Assurance - PHA*

More broadly, buyers are increasingly demanding the adoption of voluntary standards. In many cases, specific requirements that are not associated with a formalised standard are requested.

[19]HACCP is a management system that is integrated into most food legislation worldwide. Its implementation is mandatory in the EU, US and Albanian legislations. However, certification for compliance is not mandatory.

[20]The database covers all countries worldwide, but has a specific focus on a limited number of agricultural commodities, excluding fruits and vegetables and MAPs. The database provides information on the following topics: i) a review of over 300 sustainability standards, ii) a tool for multi-criteria comparison of different standards, iii) a tool for self-assessment vs. a specific standard and, iv) monitoring trends of certification schemes (area, number of producers, variation in last year). Among different monitoring features, the database provides: iv.1) an overview of the most common standards adopted for different crop categories and countries, iv.2) trends and figures regarding the use of different standards (surface, number of certified enterprises, growth over time).

[21] For example, RA – Rainforest Alliance has specific sub-modules for sage, oregano, thyme, lavender and Helichrysum. However, there is no known demand for RA MAP from Western Balkans producers.

Certifications such as Global G.A.P. and Smeta emerged as very important factors to be considered as serious and reliable counterparts in the European market.

Standards related to cultural and religious values

The most common standards of this category are those products classified as “Halal” and “Kosher”. In Albania, there is a full supply chain specialized in “Halal” products, but not F&V exporters.

On the contrary, in the Albanian domestic market, it is quite rare to find “Kosher” certified products, while *10% of the enterprises considered in the study are certified as “Kosher”*.

The main features pertaining to Kosher and Halal certification are described in **Annex 3**.

5

THE ALBANIAN QUALITY INFRASTRUCTURE SYSTEM

5.1 BACKGROUND

The Quality Infrastructure System (QIS) is a combination of initiatives, institutions, organizations, activities and people contributing to a myriad of policy priorities, including agriculture development, trade competitiveness, efficient use of natural and human resources, food safety, health, the environment and climate change (UNIDO, 2016). It includes a national quality policy and institutions to implement it, a regulatory framework, quality service providers, enterprises, customers and consumers (with citizens considered as "consumers" of government services).

There are various levels of stakeholders involved in ensuring the functioning of the quality infrastructure in Albania, including: i) institutions responsible for the preparation of the regulatory framework and quality policy at central and local level government bodies, ii) quality infrastructure institutions, iii) bodies responsible for monitoring the quality infrastructure services, iv) specific stakeholder categories, including farmers, processors and importers of food products, v) consumers, vi) quality promotion stakeholders, including central state agencies, media, donors, academia and civil society (Table 5.1).

TABLE 5.1: THE COMPONENTS OF THE QUALITY INFRASTRUCTURE IN ALBANIA

LEVEL	COMPONENT	STAKEHOLDERS
Regulatory Framework and quality policy	Key government institutions.	Parliament, Council of Ministers, MARD (including agencies, divisions, technical committees and commissions) and MFE.
Quality infrastructure institutions	Metrology, Calibration, Accreditation.	GDM, GDS, GDA.
Quality infrastructure services	Inspection.	NFA, NAVMP, SIMS.
	Testing.	ISUV, NFA laboratories, AUT laboratory, private laboratories.
	Certification and control.	Certification bodies.
Quality promotion	Educational institutions.	AUT, UFN, vocational schools.
	Quality awareness.	AIDA and ANES.
	Associations.	Associations related to F&V value chain (3).
	Donors.	SDC projects, EU, GIZ, WB, FAO.
VC Actors	From input to foreign market.	Input providers, farmers, processors/ exporters.
Consumers	State and private initiative.	Consumer Associations and National Committee for CP.

Source: Author's own elaboration based on interviews

5.2 THE REGULATORS AND THE GOVERNMENT

5.2.1 Role and Responsibilities of Government bodies and regulators

The Quality Assurance System (QIS), which fulfils public health and safety obligations and functions as a vehicle for policy implementation in numerous fields, is supported by governments and regulators. By defining standards and conformity assessment procedures, QIS supports regulations by ensuring that values of the public interest, such as public health and the environment, are upheld. Conformity evaluation is frequently required, and these standards are frequently transformed into contractually enforceable obligations.

The governance of quality in Albania is structured on different levels. At the central level, the main institutions are the Parliament, the Council of Ministers, and the line ministries.

The Parliament: In the Albanian Parliament, several Parliamentary Commissions are dedicated to activities related to QI, with the most notable being: i) the Parliamentary Commission for Production Activities, ii) the Parliamentary Commission for Trade and Environment, which plays an important role in drafting and amending relevant legislation and proposals for reforms in trade, agriculture, environmental protection etc.

The Council of Ministers and the Line Ministries. The Council of Ministers approves various by-laws (e.g. legislation, regulations) and policies in all areas. The main line ministries which are related to QI in the agrifood sector (including Fruits and Vegetables) are the Ministry of Agriculture and Rural Development (MARD); the Ministry of Finance and Economy (MFE) and the Ministry of Environment and Tourism (MET) .

The Ministry of Finance and Economy (MFE) is the responsible institution at the top policy level for coordinating the following quality infrastructure institutions: i) General Directorate of Metrology (GDM); ii) General Directorate of Standardization (GDS); iii) General Directorate of Accreditation (GDA), iv) General Directorate of Industrial Property[22], and v) Albanian Investments Development Agency (AIDA). Key QI institutions are discussed in more detail in **subchapter 5.3**. An inspection body subordinate to the MFE is the State Inspectorate of Market Surveillance (SIMS)[23].

The Ministry of Agriculture and Rural Development (MARD): MARD's mission is to develop and implement policies on agriculture, rural development, food safety, consumer protection, fisheries and aquaculture and the sustainable use of water resources. It drafts by-laws (e.g. ministerial orders). There are various divisions within MARD that are responsible for strengthening the quality infrastructure. The food safety, veterinary and phytosanitary policy is separately organized through various structures. Under the MARD, the General Directorate of Food Safety, Veterinary, Plant Protection and Fishery and the Directorate of Policies on Plant Health, Seed, Seedling and Fertilizers (DPPHSSF) deal with the drafting of policies related to food safety, animal and plant health (see **subchapter 5.4.1**. for a more detailed description of their role in controlling agriculture inputs and products quality).

The food safety and quality assurance functions are implemented through the National Food Authority (NFA), the National Authority of Veterinary and Plant Protection (NAVPP) and the Food Safety and Veterinary Institute (FSVI). In particular:

- The National Food Authority is the Competent Authority to coordinate, plan and carry out the official control of food, feed, and live animals along the entire chain of their transport, storage, and trading, including import and export;
- The National Authority of Veterinary and Plant Protection (NAVPP) and the Albanian National Extension Services (ANES) are responsible for the sustainable use of inputs/PPP in the Albanian territory;
- The Food Safety and Veterinary Institute (FSVI) is the National Reference Laboratory, responsible for conducting analyses related to food, veterinary and plant protection.

Both NFA and NAVPP have inspection responsibilities. Their function is described more in detail later in this chapter.

Under the MARD, the General Directorate of Food Safety, Veterinary, Plant Protection and Fishery, and the Directorate of Policies on Plant Health, Seed, Seedling and Fertilizers (DPPHSSF) deal with the drafting of policies related to food safety, animal and plant health.

The Ministry of Environment and Tourism (MET) serves as the high-level policy-making body responsible for overseeing the sustainable use of natural resources.

Municipalities are responsible for market vigilance, including wholesale markets. Municipalities can require market operators to report data as part of their contract with the companies managing the markets. They are responsible for the administration

[22]The General Directorate of Industrial Property is a government institution tasked with overseeing all the procedures related to industrial property rights. It is responsible for ensuring reliable examination and registration related to: patents, trademarks, industrial design and geographical indications.

23 It was established by DCM no. 36, dated 20/01/2016 "On the establishment, organization and functioning of the State Market Surveillance Inspectorate".

of green markets. In addition, they should support the agricultural sector as an important economic activity[24]. Limited resources reduce the capacity of the Municipalities to actively participate in supporting agriculture.

Main policy gaps

The National Quality Policy (NQP) serves as the fundamental governmental instrument for establishing and supervising the Quality Improvement Systems (QIS) in most countries. It defines roles and responsibilities for Quality Infrastructure Institutions, Inspection and Testing entities, and other subjects involved in policy implementation. The NQP should harmonize standards, quality, and technical regulation in industrial development, export trade, environmental control, food safety, and science and technology development. In Albania, some components of a NQP are included in the draft of the "Intersectoral Strategy for Consumer Protection and Market Supervision (ISCPMS) 2023 – 2030"[25].

The main areas covered by this strategy are:

» Safety of food and non-food products; drugs for human use; cosmetics; quality infrastructure; market surveillance etc.;

» Consumer protection beyond safety aspects, including: i) consumer protection in terms of commercial practices; ii) enforcement of consumer rights; iii) alternative and online dispute resolution; protection of consumer interests in the fields of environment, tourism, digitization etc.;

» Consumers' awareness and information, as well as inter-institutional cooperation with other stakeholders such as consumer organizations, civil society, businesses etc.

The ISCPMS 2023-2030 is a strategic document tackling quality issues. Considering the current situation, there is a need to address various other weaknesses which go beyond the issue of safety, consumer protection and consumer awareness.

5.2.2 Legal framework gaps

Policy stakeholders and market operators have identified parts of the legislation that are not aligned with the EU legal frameworks that require harmonization within a NQP framework.

1. The accreditation of conformity assessment bodies.
2. Good Laboratory Practice (GLP).
3. Marketing standards as part of a common market organization (CMO).
4. Albania's legislation on accreditation and market surveillance.
5. The norms that are still based on the 'old approach' (GT Engineering, 2023) [26] such as those for food pre-packaging[27].
6. The relationship between (voluntary) standards and (mandatory) technical regulations[28].

Recent regulations, such as EU 2018/2948, require Albanian legislation to align with specific QI components. However, weak evidence-based policies and limited stakeholder involvement contribute to alignment gaps in legal harmonization. *The role of the National Standards Body in bridging the gap in meeting the legal requirements set forth in the EU's "New Legislative Framework"*

The "New Legislative Framework" adopted by the EU in July 2008 introduced a more flexible approach both to the adaptation and modification of standards in EU member states and to the process of legal

[24] Few municipalities organise fairs for the promotion of local products. Municipalities can also take part in the establishment and functioning of the Local Action Groups (LAGs). There are few examples of measures or programmes for the support of agriculture from municipalities. For instance, the Municipality of Divjakë is providing soil analyses through the Urban Lab.

[25] The strategy was finalized under the coordination of a steering Committee led by the Ministry of Finance and Economy (MFE) in the first quarter of 2023. The Steering Committee could potentially become a de-facto governing body for Albania's National Quality Infrastructure System.

[26] The old approach represented the conventional method by which national authorities formulated technical legislation, delving into extensive details, typically driven by a lack of trust in the diligence of economic operators concerning matters related to public health and safety. In certain sectors (e.g. legal metrology), this even led public authorities to issue certificates of conformity themselves. "Historically, EU legislation for goods has progressed through four main phases:

1. The traditional approach or 'old approach' with detailed texts containing all the necessary technical and administrative requirements,
2. The 'new approach' developed in 1985, which restricted the content of legislation to 'essential requirements', leaving the technical details to European harmonised standards. This, in turn, led to the development of the European standardisation policy to support this legislation,
3. The development of conformity assessment instruments became necessary for the implementation of various Union harmonisation acts, encompassing both the new approach and the old approach,
4. The 'New Legislative Framework' adopted in July 2008, which built on the New Approach and completed the overall legislative framework with all the necessary elements for an effective conformity assessment, accreditation and market surveillance, including the control of products from outside the Union."

Ref: GT Engineering in: https://www.gt-engineering.it/en/insights/machinery-directive/the-old-and-the-new-approach-of-eu-legislation/

[27] Food pre-packaging refers to packaging that is done either at the production site (e.g. boxes used for collecting vegetables in the field) or before sale

[28] It is important for the government to ensure that the country implements standards and technical regulations consistently with world trade rules. These rules are established by the World Trade Organization (WTO). Due to the mandatory nature of technical regulations, they have the potential to become technical barriers to trade (TBT) that prevent or hinder the flow of goods and services between countries. Although standards are generally voluntary, they become mandatory when referenced in regulations.

harmonization in pre-accession countries, such as Albania. The "New Legislative Approach" reduces the reliance on primary legislation (i.e., laws), which now serves as a framework legal tool, and shifts the responsibility for designing and adapting specific provisions (i.e., standards) to more flexible tools such as national standard bodies. These groups of standards developed within the framework legislation retain legal binding force and become legal requirements.

5.2.3 Synopsis of institutional challenges and suggested improvement actions

The table below provides a summary of the main gaps and the proposed intervention.

TABLE 5.2. THE MAIN GAPS AND POSSIBLE INTERVENTIONS FOR IMPROVING QUALITY INFRASTRUCTURE FOR THE POLICY-MAKING FRAMEWORK

PROFILE	**CHALLENGES**
The Parliament and parliamentary commissions (e.g. the Commission for Production Activities, Trade and Environment). The Council of Ministers MARD Agencies (NFA, NAVPP, FSVI) MFE: (GDA, GDM and GDS) Municipalities: Market infrastructure, forest and pasture planning.	Albanian legislation partly aligned with the EU legal framework on: » Accreditation of conformity assessment bodies » Good Laboratory Practice (GLP) » Market standards as part of Common Market Organization (CMO) » Legislation on accreditation and market surveillance » The 'old approach' product legislation, especially pre-packaging, bottle measurement Furthermore, weak capacities for evidence-based policies and stakeholder inclusion
	RECOMMENDATIONS » Fine-tune the NQP framework based on best practices and define the roles and responsibilities of each stakeholder in the QI system through the preparation of a national regulatory framework on quality » Support the coordinating body in charge of implementing the NQP for supporting the quality infrastructure and harmonising technical regulation activities » Define the roles and responsibilities of each actor in the QI system through the preparation of a national regulatory framework on quality » Increase budgetary support to strengthen capacities in QI institutions (e.g. standards, metrology and accreditation) and other components of the QI system (quality promotion, inspection, testing, certification, calibration & verification); distribute resources according to the revised assignment of roles and responsibilities » Support the expansion of the legal alignment in the field of QI with a focus on adopting and implementing legislation in the area of 'new and global approach' product legislation in Albania

Source: Own elaboration

5.3 QUALITY INFRASTRUCTURE INSTITUTIONS

Within a QIS, the main quality institutions are those responsible for accreditation, metrology and standards. As highlighted above, these institutions operate under the authority of the MFE. The following subchapters describe these institutions in more detail.

General Directorate of Accreditation (GDA)

According to the ISO Council Committee on Conformity Assessment (CASCO), accreditation is the process through which an authoritative body formally recognizes that a specific body or individual is competent to perform specific tasks (UNIDO, 2016).

The national accreditation body in Albania is the General Directorate of Accreditation (GDA), which has the authority to provide formal recognition to organisations providing certification, testing, inspection and calibration services[29] in accordance

[29] The GDA is subordinate to the Ministry of Finance and Economy and operates under Law No.116/2014, dated 11/09/2014 "On the accreditation of conformity assessment bodies in the Republic of Albania", DCM No. 667, dated 29/07/2015, "On the organization and functioning of the General Directorate of Accreditation" and the requirements of standard S SH ISO / IEC 17011 "General requirements for accreditation bodies performing the accreditation of conformity assessment bodies".

with the SSH EN 45011 standard. GDA is a member with full rights of the European Accreditation Body (EA) General Assembly30 and a signatory of the European Cooperation for Accreditation Multi-Lateral Agreement (EA MLA) in the fields of Inspection and Management Systems Certification. Based on agreements with the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC), GDA certifies management systems based on ISO 17021-1. GDA operates a management system that aligns with the requirements of SSH ISO/IEC 17011.

So far GDA has acquired the capacity to accredit TIC for process standards, but not yet for product standards (e.g. Global G.A.P. standards). There is a need to enhance the accreditation for product standards in the F&V sector and to increase the engagement of sector stakeholders in the GDA technical groups.

The table below shows the main gaps and recommendations for improving accreditation, with a focus on the F&V sector.

[30] Membership is contingent on establishing an agreement with the EA to become a signatory of the mutual recognition agreements in the field of testing laboratories. This would enable the recognition of testing conducted by GDA-accredited laboratories at the European level.

TABLE 5.3. THE MAIN GAPS, CHALLENGES, NEEDS AND POSSIBLE INTERVENTIONS FOR IMPROVING ACCREDITATION, WITH FOCUS ON THE F&V SECTOR

PROFILE	**CHALLENGES**
GDA is the single national accreditation body that assesses, in accordance with international standards, organizations that provide certification, testing, inspection and calibration services. GDA also provides accreditation to certification bodies and laboratories in the agrifood sector (e.g. soil analysis, food safety etc.). Tasks and responsibilities Pursuant to Law No. 116/14, dated 11/09/2014 and DCM No. 667, dated 29/07/2015, the GDA tasks are to: 1. Cooperate with GDS, GDM, relevant ministries and interested associations on accreditation issues. 2. Undertake activities in the field of inter-laboratory comparisons and proficiency tests. 3. Receive data from accreditation bodies of other countries for accredited organizations that perform activities in Albania. 4. Impose fines on non-accredited subjects. 5. Handle appeals for accreditation submitted with the General Directorate of Accreditation. GDA has 4 technical working groups (TWG) which consist of the TWG for Testing and Calibration Laboratories, TWG for Medical Labs, TWG for Certifying Bodies and TWG for Inspection Bodies.	» No accrediting TIC bodies in place for agriculture product standards (e.g. GlobalG.A.P)Need to increase trust/reputation, especially among foreign operators » A limited number of technical assessors operate with relevance for VCs (testing, calibration, certification and inspection) » Poor engagement of the F&V sector representatives in the technical working groups (TWG) **RECOMMENDATIONS** » Increase awareness of GDA on the targeted VC and support capacity-building in VC-specific areas » Provide support to GDA to develop: i. ISO/IEC 17065-based accreditation for product certification schemes (e.g. GlobalGAP) ii. ISO 22003-1-based accreditation of Food Safety Management System Certification Bodies under the FS 22000 Scheme iii. ISO/IEC 17025-based accreditation of testing laboratories for VC-specific activities (focus on humidity, pesticide and bacteria testing) » Support the adoption of rules, processes and competence criteria for the accreditation by EA MLA and facilitate the participation of GDA lead assessors and technical assessors as observers in assessments performed by an EA MLA accreditation body for accreditation schemes in the F&V sector » Train a pool of technical assessors with relevant experience to service the F&V sector (testing, calibration, certification and inspection), and mentoring to the point of being declared competent » Increase monitoring of GDA lead assessors and technical assessors in order to increase trust from market operators

Source: Own elaboration

General Directorate of Standardization (GDS)

Standards are "*documented agreements that translate desired characteristics into dimensions, tolerances, weights, processes, systems, best practices and other specifics, so that products and services that conform to their requirements provide confidence to buyers and users*" (UNIDO, 2016).

Within a QIS, standardization is usually the responsibility of a National Standards Body (NSB) that may represent the country's interests within organizations such as ISO (the International Organization for Standardization).

The General Directorate of Standardization (GDS)[31] in Albania is responsible for transposing and publishing European and international standards. It is an associate member of the International Electrotechnical Commission (IEC), a full member of the European Telecommunication Standards Institute (ETSI), a member of the European Committee for Standardization (CEN), and a member of the European Committee for Electrotechnical Standardization (CENELEC). By 2017, all harmonised European standards had been approved as Albanian standards by GDS. There are 40,400 standards and standardization papers in the GDS collection as of May 2021, 95% of which are European or worldwide. National standards are adopted in accordance with European standards like CEN, CENELEC, and ETSI.

GDS is responsible for developing, adopting, approving, implementing, and publishing Albanian standards in all fields.

GDS has adopted several standards for plants regarding chemical determinations, analyses, and test methods, working in collaboration with the relevant Technical Committee. The institution is in the process of revising the old Albanian standards to abolish and replace them with equivalent European and international standards.

Based on the interviews, it was identified that GDS technical Committees do not include stakeholders/ experts from the F&V sector. In addition, there is limited awareness among market operators on the scale and importance of GDS services. The rules governing GDS are not yet aligned with EU regulatory framework. In addition, the capacity to enforce the already adopted EU regulations is diminishing the GDS authority in regulating the standards in the Albanian markets.

Table 5.4 shows the main gaps and recommendations for improving standardisation with focus on the F&V sector.

[31] The work rules and procedures for national standardization activities have been drawn up by the General Directorate of Standardization (DPS) pursuant to Law No. 9870, dated 04/02/2008 "On Standardization", as amended.

TABLE 5.4. THE MAIN GAPS, CHALLENGES, NEEDS AND POSSIBLE INTERVENTIONS FOR IMPROVING STANDARDIZATION, WITH A FOCUS ON THE F&V SECTOR

PROFILE	CHALLENGES
GDS is the National Body of Standardization in Albania. GDS is certified according to ISO 9001 and ISO 9001:2015, accredited by GDA under the IAF Multilateral Recognition Arrangement (MLA). Based on Law 9870 "On Standardization" and other by-laws, GDS is the WTO/TBT National Notification Authority and Enquiry Point for technical standards. **Tasks and responsibilities** 1. Align and coordinate all activities for a modern standardization system at the national level. 2. Facilitate the transfer and accessibility of the latest European and International standards to the local economy and interested parties, while actively pursuing their adoption as Albanian Standards (SSH). 3. Raise public awareness of the importance of adopting European and International standards and European conformity assessment procedures for trade and the consumer. 4. Provide transparency, inclusion and the attainment of consensus among all interested parties throughout the entire process of drafting and adopting standards.	» Limited involvement of F&V stakeholders or experts in relevant technical bodies and technical committees » Limited awareness among stakeholders about GDS role/services and limited information on proposed technical regulations » Rules governing GDS need further legislation alignment with the EU framework » Limited enforcement capacity for legislation that has already been adopted (EU Regulation 1025/2012 "On European Standardization" / Decision of the Council of Ministers 382/2018 "On the approval of the Regulation on Standardization Activities", as amended)
	RECOMMENDATIONS
	» Provide capacity building to GDS staff and MFE staff to increase expertise and speed up the legislation alignment » Strengthen active participation of stakeholders from the F&V sector in the Technical Committees dedicated to this sector, in order to increase their contribution to the drafting, approval and adoption of standards pertaining to this sector » Provide support for capacity building on Good Standardisation Practices to: i) GDS staff and ii) Technical Committees, with a focus on the F&V sector » Assist GDS in establishing a network of contacts among market operators who benefit from the notification procedure, in order to ensure the establishment of a rapid alert system or its equivalent » Support GDS in developing guidelines, manuals, infographics, etc. to raise awareness about standards among relevant regulators and value chain operators » Identify the need for F&V specific Albanian Standards that could be used to improve the quality of local products and potentially serve as a foundation for regional or international standards in the future » Translate the most relevant CEN, ISO and other standards relevant to the targeted sectors into Albanian language (using digitalization processes, e.g. machine-readable standards) and promotion through platforms and dissemination materials » Involve interested parties from the targeted value chains in the drafting, approval and adoption of Albanian standards and their voluntary implementation as stipulated in the Law on Standardization No. 9870 » Provide training to the GDS staff with a focus on aligning legislation and implementing legislation that has already been adopted (EU Regulation 1025/2012 "On European Standardization" / Decision of Council of Ministers 382/2018 "On the approval of the Regulation of Standardization Activities", as amended)

Source: Own elaboration

General Directorate of Metrology (GDM)

Ensuring rigorous measurement contributes to promoting fair production and trade.

Legal metrology regulates measurement and addresses fair trading, food safety, health and environmental standards (UNIDO, 2021). In Albania, the primary national conformity assessment body is the General Directorate of Metrology (GDM)[32]. GDM develops the

[32] The General Directorate of Metrology is a public legal entity specialized in metrology, based in Tirana and organized into 4 service sectors, subordinate to the Minister of Finance and Economy. It exercises its activity based on Law No. 126, dated 15.10.2020 "On metrology", and on the by-laws issued in implementation thereof.

national metrology system in line with European standards and harmonizes technical procedures for conformity of measurements in order to avoid technical barriers to trade.

GDM activities include three basic and overlapping activities:

1. ***Scientific metrology,*** which is concerned with the establishment of units of measurement, the development of new measurement methods, the realisation of measurement standards, and the transfer of traceability from these standards to users in society.
2. ***Industrial,*** applied or technical metrology, which is concerned with the application of measurements to manufacturing and other processes and their use in society, ensuring the suitability of measurement instruments, their calibration and quality control.
3. ***Legal metrology***, which concerns measurements, units of measurement, measuring instruments and methods of measurement, performed by competent bodies and related to statutory requirements regarding public interest matters (e.g. public health, fiscal rules, consumer protection, etc.)

AlbaniaN Law No. 10489 allows private entities to act as conformity assessment bodies for the certification, inspection, and testing of non-alimentary products. The law aims to align the Albanian legislation with EU regulations, including EU Regulation 765/2008. Accreditation by bodies outside the EU is required for certificates, tests, and inspection reports. However, GDM has a limited scope of services relevant to the food and beverage sector, and its legal base is not aligned with EU regulations. Additionally, GDM lacks accreditation according to ISO/IEC 17025 for laboratory competencies related to F&V sector services. It also has to uphold compliance with the requirements of ISO/IEC 17025 concerning laboratory competencies, particularly in electrical, temperature, humidity, length and chemistry laboratories. **Table 5.5** below highlights the main gaps and recommendations for improving metrology, with a focus on the F&V sector.

TABLE 5.5. THE MAIN GAPS AND RECOMMENDATIONS FOR IMPROVING METROLOGY, WITH A FOCUS ON THE F&V SECTOR

PROFILE	CHALLENGES
GDM is the primary national conformity assessment body. The national metrology system includes national standards laboratories, calibration laboratories, testing laboratories, and certification entities authorized to perform legal metrology activities. GDM has four regional centers/offices: Tirana, Fier, Lezha and Korça. **Tasks and responsibilities** 1. Maintain and use national standards for units of measurement; 2. Protect consumers through the control of measuring instruments in the field of official and commercial transactions, health protection, environment and technical safety, as well as perform quantitative assessment of pre-packaged goods; 3. Provide calibration services to manufacturers and users of measuring instruments.	» Limited scope for calibration services (mainly thermometers, volume and density) not fully meeting operator needs » The law "On metrology" is not aligned with Directive 2009/34/EC and other directives on pre-packaged goods » No accreditation according to ISO/IEC 17025 concerning laboratory competencies, particularly in electrical, temperature, humidity, length and chemistry laboratories
	RECOMMENDATIONS
	» Fully align the Albanian Law No. 126/2020 "On metrology" with the EU legislation. According to the notes in Law No. 126/2020, the law is only partially aligned with Directive 2009/34/EC » Update the DM strategic plan (scope of calibration for the VCs) » Support GDM (e.g. test methods) to become ISO/IEC 17025 accreditation-ready, with a focus on chemical and humidity laboratories, which are important for the F&V value chain » Conduct simulated EA MLA Peer Assessment with a focus on F&V » Determine the legal metrology and pre-packaging requirements for F&V » Provide reference materials for the measurement of product humidity, pesticide residues, bacteria and metal (lead) contamination » Support cooperation with other National Metrology Institutions to support initiatives for F&V

Source: Own elaboration

5.4 QUALITY INFRASTRUCTURE SERVICES

5.4.1 Agricultural inputs registration and control

The main agricultural inputs are: i) propagation material (PM), ii) Plant Protection Products (PPP) and iii) fertilizers.

The system of registration, inspection **and** testing of **agricultural inputs** and their use is quite complex and involves several units within the MARD and Agencies which depend on MARD. **Registration and certification of agricultural inputs**

» *Propagation material:* The ***State Entity for Seeds and Seedlings (SESS)*** is the body responsible for authorizing the production and import of certified propagation materials (PM). (Law no. 10416, dated 07/04/2011). According to the law, only certified PM can be traded; for own needs, farmers are allowed to use propagation materials sourced by their own crops. Albania recognizes the internationally accepted PM certifications (e.g. certified saplings or seeds); as for domestic production, only SESS authorised nurseries can produce and sell certified propagation materials.

» *Plant Protection Products (PPPs)*: The responsible body for PPP registration is the ***PPP Registration Commission.*** The Commission is a collegial technical body, consisting of representatives from MARD, NFA and FSVI. All PPPs that are traded or used in Albania should be registered and included in the Register of Plant Protection Products (RPPS)[33]. Only PPPs that are registered in one of the EU Member States can be included in RPPS. Currently all PPPs are imported.

» *Fertiliser Products:* The responsible body for fertilisers is the ***Fertiliser Products Registration Commission (FPRC)*** in MARD; FPRC is a collegial, technical, permanent and decision-making body.

[33] Law No. 105 / 2016, "On Plant Protection"

Agricultural inputs inspection and testing

Inspections of agricultural inputs, including border post inspections. The *National Food Authority-NFA* is responsible for this task. NFA controls the import, trade and storage of agricultural inputs, whether they are imported or domestically produced, through documentary inspections. However, NFA also has the authority to collect samples and request testing from national reference laboratories which, depending on the input, are ISUV (PPP, fertilizers) or the AUT, as well as NFA phytosanitary laboratory of Durrës (phytosanitary hazards related to propagation materials);

5.4.2 Inspection bodies for food products, food producers, agricultural inputs and input dealers

Inspection bodies and reference laboratories play an essential role in cross-border trade. They act on behalf of governments and business partners (importers and exporters) by inspecting imported goods and materials. The overall aim is to reduce risks to the buyer, owner, user or consumer of the item being inspected (UNIDO, 2016). Below, we provide an overview of the main inspection bodies relevant to the F&V sector.

National Authority of Veterinary and Plant Protection – NAVPP[34]

For the purpose of ensuring the welfare of people, animals, plants, and the environment, NAVPP is in charge of on-farm inspections and controls, including the use of agricultural inputs. Additionally, it implements short-, medium-, and long-term action plans, as well as phytosanitary monitoring. The NAVPP is in charge of overseeing high-risk PPP use, granting certificates, and regulating imports, trading, and storage away from farms. PPP contaminants and residuals in food items are under NFA's jurisdiction. The implementation of DCM No. 317, which ensures the sustainable use of PPP on Albanian territory, is the responsibility of NAVPP, NAVP, and ANES.

34 See Law No 71/2020 "On some changes and amendments to Law No. 10465/2011" and DCM No 683/2020 "On the establishment, organization and functioning of the National Authority of Veterinary and Plant Protection".

BOX 7: OBJECT OF NAVPP INSPECTIONS

The object of NAVPP inspections is as follows:

» **Contaminants:** controls are carried out based on annual planning. The sample is collected randomly. It does not require supporting documents. No certificate is issued

» **PPP residues:** controls are carried out based on annual planning. The sample is collected randomly before entering or in collection centres. It does not require supporting documents. No certificate is issued

» **Phytosanitary**: Controls are based on information, inspections, sampling and testing performed and/or official information on the status of pests in the country of production, zone, or place of origin, and/or the plant passport. For products to be exported, the phytosanitary certificate is issued by the Sanitary Certification and PPP monitoring sector at the regional directories of NAVPP

» **Labelling**: Inspections are conducted at various stages of the trading chain, particularly when their function involves providing information to consumers. It does not require supporting documents

Source: Own elaboration

An assessment of NAVP gaps, challenges and needs is shown in **table 5.6** below.

National Food Authority – NFA[35]

NFA is responsible for the inspection of food processing establishments and all food products from farm gate to market are controlled by, which is the responsible authority for inspection and enforcement of Food law. NFA is structured with its General Directorate in Tirana and 12 Regional Directorates in each region, as well as 13 Border Inspection Posts - BIPs, which are responsible for the control of imported products of animal and non-animal origin, live animals, plants and plant products and agricultural inputs.

The NFA Regional Directorates of the National Food Authority carry out the technical-technological, hygienic and phytosanitary controls for compliance of food products and PPPs. The BIPs primarily perform documentary checks of imported food products, agricultural inputs, live plants and animals.

The NFA inspection system is risk-based and it is structured based on annual and multi-annual plans. A more detailed description of the system is provided in **box 8** below, which also indicates the point of interaction between NFA and other agencies and bodies dealing with the inspection of food products, agricultural inputs, live animals and plants.

[35] The Authority was established by Law No. 9863, dated 28/01/2008 "On food", as amended. The organization and functioning of the institution are outlined in DCM No. 1081, dated 21/10/2009, as amended. The institution commenced its operation on 20/05/2010.

BOX 8: NFA INSPECTION PLANNING AND IMPLEMENTATION

Every year, NFA conducts a risk assessment-based inspection and testing plan for food and animal feed products; based on the assessed level of risk.

The actual inspections are based on the annual plan, but retain flexibility, considering changes in the level of risk, denunciations, citizen complaints, media alerts, alerts from the RASFF system and specific orders. A scoring system is used considering these risks factors.

The matrix of non-complying cases is submitted with the Regional Agricultural Extension Agency RAEA (AREB), which will cooperate in ensuring the product's withdrawal from the market, tracing back the non-compliant product or input.

Inspections performed in raw agricultural products collection centres and food processing units are related to the fulfilment of legal requirements in terms of hygiene, storage, packaging and transport conditions, traceability and application of legal provisions on labelling.

The enforcement activity of NFA includes FBO inspection and control of imports in BIPs.

BIPs primarily conduct documentary inspections and visual checks and take samples only in cases of suspected non-compliance.

When suspected or confirmed instances of non-compliance are identified (following inspections conducted in FBOs, BIPs, input dealers and markets), various courses of action are employed, depending on the specifics of the case:

» If suspected or actual non-compliance is detected at BIPs, samples are sent to FSVI or a phytosanitary laboratory for testing

» If suspected or actual non-compliance is identified at FBO level, samples are sent to FSVI. The responses are then communicated to the Regional Directorate of MARD. In case of non-compliant farms, measures are implemented by NFA or are jointly undertaken by NFA and NAVPP;

» When assessing market risks, NAVPP conducts inspections in cooperation with AREB

» If risks are observed at the farm level and are specifically related to phytosanitary concerns, the Directorate of Plant Protection within the Regional Directorate of NAVPP is the authority responsible for leading the procedure

» If a non-compliance information / alert is sent by EU RASFF, inspections are conducted by the competent NFA Regional Directorate, in some cases in cooperation with SIMS

Source: Own elaboration on MARD, 2022

State Inspectorate of Market Surveillance (SIMS)

SIMS is responsible for inspecting non-food consumer products and intellectual property, as well as metrological inspection and energy consumption. However, national coverage is limited due to a lack of legal framework and poor human and logistic capacities. More cooperation is needed to control pre-packaged and packaged materials in the food processing industry.

5.4.3 Assessment of key QI institutions for agricultural inputs and food inspection

The two largest QI institutions for agricultural inputs and food certification, registration, inspection and testing are NFA and NAVPP. An assessment of the gaps, challenges and needs of these two QIS bodies is provided in **table 5.6** and **table 5.7** below.

TABLE 5.6: MAIN GAPS, CHALLENGES AND NEEDS AND POSSIBLE INTERVENTIONS FOR IMPROVING INSPECTION

PROFILE

NFA is the agency responsible for the implementation of legal provisions related to food safety, with inspection and control powers over stakeholders within the food chain, spanning from agricultural input suppliers to those involved in food trade, but excluding farms and nurseries;

NFA inspects a network of laboratories at the regional level with limited testing capacities

RESPONSIBILITIES:

- Coordinates the food safety risk assessment process
- Coordinates and carries out controls related to food safety and licensing compliance in terms of food and agricultural inputs production, through a planning process based on risk assessment
- Permanently or temporarily suspends the activity of stakeholders within the food chain when non-compliance with legal requirements is found

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CHALLENGES

- Fragmented responsibilities for inspection along the food chain between NFA, NAVPP, AREB, SIMS
- Limited resources and capacities to inspect agricultural input traders and food processors and limited categories of plants subject to control
- Limited capacities at BIP
- Control of agricultural inputs and input mainly based on the documentation
- Ineffective traceability system in place for agricultural inputs

RECOMMENDATIONS

- Implement online inventory control to enhance the management system for food safety and the traceability of agricultural inputs and food items; Capacity building for BIP staff, NFA laboratory staff and inspectors to enhance their capacity
- Change the risk assessment process used to arrange yearly inspections from product-based to being FBO-based

Source: Own elaboration

The main challenges of the NAVPP, as well as the required interventions, are listed in the following table.

TABLE 5.7: MAIN CHALLENGES AND NEEDS FOR THE NAVPP IN ALBANIA

PROFILE	CHALLENGES
NAVPP's mission is to implement policies and strategies for the protection of human, animal, plant and environmental health at the farm level. The Agency also has the overall responsibility for the implementation of phytosanitary control at the national level. NAVPP facilities include a central office in Tirana and the Regional Directorates of Veterinary and Plant Protection (RDVVP) located in Tirana, Shkodër, Elbasan and Vlora.	» No clear MRL specifications by products type in the Albanian legislation; » Insufficient knowledge and updates on the MRL and contaminant limits set by EU provisions for products intended for the EU market; » Lack of laboratory-based control at the farm level for the horticulture sector (including F&V) (controls are rare and only visual); » Inadequate pharmacovigilance practices that result in limited oversight of the utilization of Plant Protection Products (PPPs); » Improper institutional division of competencies – input retailers are controlled by NFA, despite its close connection to farmers; control through NAVPP could be more effective; » Lack of protocols for the use of PPPs based on the type of plant;
	RECOMMENDATIONS » Clearly define and disseminate MRL (maximum residue levels) by type of product etc.; » Further align legislation with the EU acquis on contaminants; » Specify duties, accountability, and competencies in relation to input retail control; Update monitoring plans at the farm and input retailers' level; » Disseminate the protocols for the control of contaminants, pesticide residues, plant health in each segment of the VC chain in order to increase trust and awareness; » Invest in Phytosanitary Information Systems (PIS) for plant health and plant protection.

Source: Own elaboration

5.5 CONFORMITY ASSESSMENT AND TESTING

Conformity assessment is related to the processes and procedures that are used to demonstrate that a product or a service, management system, organization or personnel meets the specified requirements. These requirements are usually stated in international standards developed by organizations such as ISO (International Organization for Standardization) (UNIDO, 2016).

Agreements between nations or regions on the mutual acceptability of requirements, assessment methods, inspection or test results, etc., can all help to reduce or remove technical barriers to trade. Testing is the most common form of conformity assessment. Testing also provides the basis for other types of conformity assessment, such as inspection and product certification.

The estimated value of the overall market size for food testing in Albania is EUR 3 mln. The main clients are exporters, whose specific demands depend on the buyers' requirements, the scale of processing and the specifics of the destination markets.

In Albania, the testing infrastructure includes the National Reference Laboratory (FSVI), the NFA

laboratories and private laboratories, whether accredited or not accredited. In addition, research institutes laboratories provide services mainly in the framework of their research missions and scope. The main stakeholders in the testing system are described in the chapter below.

5.5.1 Public laboratories

The Food Safety and Veterinary Institute (FSVI)

The FSVI is the National Reference Laboratory for Public Health and for Food Safety; it has a wide range of testing and conformity assessment responsibilities relevant to food products. FSVI also monitors the epizootic situation in the country. The main FSVI regular testing activity is the provision of laboratory analyses in the application of the National Residue Monitoring Plan (PPPs, heavy metal and mycotoxins contaminants). FSVI is aligned and compliant with all EU requirements for fresh F&V products, for more than 600 matrix-Reference Materials (RMs). The plan is expanding on an annual basis, in parallel with the increase of FSVI capacities[36]. The range of accredited and non-accredited testing services is also expanding.

FSVI human resources are relatively numerous and qualified. The main challenge is to guarantee a laboratory reference system to support the F&V sector. There is also a need to expand the range of accredited F&V analyses. For this purpose, there is a need for further effort in terms of capacity building (in terms of human resources and equipment, such as the LC/MS/MS) and larger budget assignments to cover the costs of increasing the number and range of testing activities.

NFA regional laboratories

The regional food laboratories: NFA manages 7 regional laboratories subordinated to the Risk Assessment Directorate at the General Directorate. While all laboratories provide analyses[37] for food safety, only 3 of them are structured to cover plant protection (Durres, Korce and Shkoder). The NFA regional laboratory in Durrës specializes in providing plant protection analyses. Ultimately, the NFA regional laboratory in Durres has been supported by SAFIAL project[38].

The NFA laboratory provides physiochemical, microbiological and phytosanitary tests, but is not accredited yet. It can transfer samples for further analysis to other laboratories, such as ISUV, AUT plant protection, State Entity for Seeds and Seedlings, and ATTC Fushë-Krujë. The laboratory activity is based on risk-based monitoring and emergency plans, considering current capacities. It is part of the official control and involves self-checks by Food Business Operators. The documentation used by the laboratory sectors is based on Order No. 24, 30.01.2013. The main challenge is staff technical capacities and coordination among laboratories, particularly in regions with higher F&V production. The Laboratory Information Management Systems (LIMS) are not functional, according to the NFA annual report 2021.

Laboratory for Scientific Research on Plant Protection (AUT)

The Laboratory for Scientific Research on Plant Protection is a public laboratory established in 2015 at the Agricultural University of Tirana (AUT). The laboratory is accredited by GDA for performing tests in accordance with ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration Laboratories".

The laboratory currently has 8 staff members and modern equipment. It offers limited analyses, 6 of which are accredited by the GDA. Improvement requires renovations, training of human resources and funding for accrediting new virologic and bacterial test methods. Additionally, two persons can be trained for monitoring quarantine pests and interlaboratory tests.

Laboratory of Agro-Environment and Ecology (LAME)

This is another laboratory under the umbrella of AUT. It was established in 2010 and accredited by the GDA to perform laboratory analyses in accordance with SSH ISO/IEC 17025: 2017. The laboratory staff consists of 9 members, the vast majority of whom are women under the age of 40 and with a PhD. The laboratory performs 22 tests accredited on the following matrix-Reference Materials: determination of the content of various elements in soil). In LAME, during 2022 there were carried 4000 analyses of soil, water and plant matrices.

The main needs include: support with accreditation costs (extending accreditation for already implemented analyses, accrediting tests that are still unaccredited, and covering procurement costs), purchase of equipment (laboratory equipment for organic waste,

[36] In 2022, the laboratory has conducted over 130,000 analyses for various indicators. The staff consists of 99 people, out of whom 74 are women and 28 have scientific degrees. The main equipment has a value exceeding EUR 6 million.

[37] The types of analyses performed in each laboratory are as follows: i. The Chemical-Physical Laboratory conducts analyses related to the quality indicators of both animal and non-animal food products, labelling indicators, as well as some analytical indicators related to food safety. ii The Microbiological Laboratory conducts analyses related to safety criteria for food products and those pertaining to hygiene processes. Iii. The Laboratory of Animal Health and Welfare performs analyses for the diagnosis of various diseases and parasites in animals, and iv. The Laboratory of Plant Protection conducts analyses for the diagnosis of pests and parasites in plants and plant products.

[38] SAFIAL aims to improve the food quality in compliance with hygiene and health standards by strengthening the ability of the competent bodies to perform controls and inspections on plant material and to operate in the veterinary sector. It is funded by the Italian Ministry of Foreign Affairs and International Cooperation/ Italian Agency for Development Cooperation.

reagents related to these tests) and capacity building (qualifying external personnel, training for organic waste test procedures, and fostering collaboration).

ATTC Fushe Kruje Laboratory

The laboratory, established in 2006, is certified in accordance with ISO 9001:2015 and performs 2000 analyses per year for 10,000 indicators. It mainly consists of women under 40. Priorities for improvement include human resources capacity building, accreditation of new tests for soil, plant, and water monitoring and sampling, and purchase of equipment. The laboratory's development and functioning require support in human resources capacity building, accreditation of new tests, and purchase of equipment. on5.5.2. Private laboratories

Some accredited laboratories are private. The list of private laboratories which carry out soil or food analysis that are accredited by GDA is made available by GDA (GDA, 2023) – four of these laboratories provide specific analyses for the horticulture sector.

Some of the largest laboratories are the following:

» ECCAT sh.p.k;

» Tenuis LABORATORIES (Noval); this laboratory is reported to be the largest private laboratory in terms of capacities and services;

» Alpha Studio sh.p.k;

» BIO-V sh.p.k;

» VITROS LAB sh.p.k

BOX 9: NOVAL (TENUIS) LABORATORY

Noval (Tenuis LABORATORIES) was established in 2018. It holds ISO: 17025. The staff consists of 13 professionals (3 males, 10 females). Three members have a PhD and 9 have a MsC diploma in related sciences. Most staff members are young (12 of 13 are less than 40 years old). The equipment is worth EUR 1 mln. The laboratory performs 50,000 analyses annually and is able to cover more than 2,000 parameters and 600 pesticide elements (with relevant matrix-Reference Materials). At present, approximately 30% of the operators using Albanian laboratories are oriented towards the use of these laboratory services. While the range of elements that are analysed is expanding, it still fails to cover all the needs of the export market.

Source: Semi-structured interviews

Laboratory "Urban-Lab" Divjake

Urban-Lab is a non-public laboratory established in 2010 in Divjake, as part of the Multifunctional Center "Urban Lab" of the Municipality of Divjake, and managed by Vento di Terra Albania. The laboratory collaborates with the Italian network of SILPA laboratories. The staff consists of 1 full-time person and 2 other temporary staff members working on an as-needed basis. The laboratory is not accredited and does not possess certificates for Quality Management. The laboratory performs about 500 analyses per year, consisting mainly of soil analyses (physical, chemical - macro and micro-elements, heavy metals (partly) and water analysis (microbiological).

The main needs for the laboratory are the increase of capacities (staff training for development of new methods), support for the accreditation process and purchase of equipment (for sampling and plant fertilization programs).

Laboratory infrastructure gaps

There are various challenges hampering the further development of the laboratories.

» High average fixed costs (unit costs): The majority of costs are fixed (in the range of 80% of the total). Considering the present demand, unit costs are high. A rising demand for laboratory services could lead to reduced unit costs which can be reflected in lower prices applied to the clients. In fact, recent interventions to enforce specific aspects of the regulatory framework (e.g. water analyses, label analyses) have already reduced average unit costs for those analyses;

» Lack of trust by the market operators: Based on the survey conducted in the framework of this study with market operators, approximately 25% of the interviewees expressed scepticism about the results obtained from laboratory analyses for residuals (PPP) and contamination (e.g. heavy metals).

» Low trust in accreditation: According to interviews with laboratory operators, trust is undermined due to the questionable accreditation received by some smaller laboratories.

» Partial information: There is no publicly available information on the yearly assessment of the laboratories or a documented yearly plan for the monitoring of the laboratories' offers and capacities. An inventory of the laboratories' capacities is not available to the public.

TABLE 5.8: MAIN CHALLENGES AND NEEDS FOR THE LABORATORY NETWORK IN ALBANIA, WITH A FOCUS ON F&V SECTOR

PROFILE	CHALLENGES	RECOMMENDATIONS
FSVI: is the National Reference Laboratory. FSVI is developing testing capacities and consolidating its role as a National Reference Laboratory NFA: There are 7 laboratories at the regional NFA Directories (3 of which are focused on plant protection) AUT: plant protection and soil laboratories Private laboratories	» High laboratory services average fixed costs per unit » Poor capacities to provide services for the F&V sector » Poor trust of VC operators in the service quality of Albanian laboratories » Few accredited laboratories and limited testing services » Poor logistical capacities in the NFA laboratories » Lack of Laboratory Information Management Systems (LIMS) » Lack of accessible information on the capacities of private laboratories	» Assist FSVI in enhancing its capabilities, solidifying its status as a reference laboratory, and meeting the demands of the F&V sector actors » Encourage laboratories to improve so that new tests may be accredited (as required by certification authorities, inspection bodies, or traders), etc » Provide incentives for the strengthening of a reputable laboratory (in the phytosanitary field) which is monitored and supported by FSVI. A feasibility study is required to determine the costs and select the targeted laboratories » Raise awareness of laboratory managers on exporters' needs and the requirements of foreign markets » Increase knowledge about laboratories by referring to databases produced for laboratories in other nations » Using qualified intermediates to complete the sample procedure will increase confidence in the laboratory's services » Execute large-scale testing pilot projects with organizations and laboratories » Promote the LabNet database to users and engage more laboratories to contribute information on their capacities, the type of analyses they provide and their geographic location » Encourage NFA to launch the LIMS

Source: Own elaboration

5.6 CERTIFICATION BODIES

Certification (by a certification body) assures operators that a product, service, process, personnel, organization or management system conforms to specific requirements. Product certification consists of the initial testing of a product (based on initial testing, surveillance and type of testing, e.g. testing-based or sampling-based) combined with an assessment of its supplier's quality management system (UNIDO, 2018).

The "TIC (Testing, Inspection, Certification) bodies" are those organizations that provide auditing to businesses seeking certification or assistance with the certification process, conduct inspections to release or update certificates, and possess licenses or accreditations to award certifications.

Each certification body in Albania is required by law to be accredited by GDA if it is certified in accordance with ISO/IEC 17065 or European Standard EN 45022, or if it fully complies with these requirements. The findings of the regular and on-demand checks conducted by the certifying authority should be disclosed. The specific standards for the approval and proficiency of certifying organizations should be set out by decision of the Council of Ministers. In Albania, there are several certification bodies accredited by GDA - out of these, 7 certification bodies operate in the area of food safety such as ISO 22000-1-2018. Below is the list of accredited certification bodies.

BOX 10: LIST OF CERTIFICATION BODIES

- "Austrian Institute of Exellence" sh.p.k;
- ALCERT sh.p.k;
- AQScert;
- AXE REGISTER Sh.p.k;
- Career Cert Insitute CCI sh.p.k;
- CERTIS Shpk;
- ECIT sh.p.k;
- EQSC sh.p.k;
- H.V.A.T sh.p.k;
- HTM sh.p.k
- LEGAL CERT sh.p.k;
- NOA CONTROL sh.p.k;
- Swiss Approval Albania sh.p.k;
- TCPE sh.p.k;
- UNICERT sh.p.k;
- Unitec-Studio sh.p.k;
- WR ERN BERATUNG Shpk CERT-ERN.

Source: GGA, 2023

Historically, the only local certification body based in Albania has been Bio-inspecta (former Alb-inspect), which is accredited by Swiss Accreditation Services. In the light of recent legal changes, organic certification bodies could also be accredited by Albanian institutions (e.g. GDA)[39]. As highlighted earlier, at present there are no Albanian certification bodies accredited for Global G.A.P. certification; this service is provided by foreign accredited bodies.

TABLE 5.9: MAIN CHALLENGES AND NEEDS FOR CERTIFICATION IN ALBANIA

PROFILE	CHALLENGES	RECOMMENDATIONS
TIC bodies provide audit, control and certification services aimed at facilitating the adoption of standards.	» Lack of national accredited certification bodies for most standards; in particular, no accredited TIC for Global G.A.P. standards certification; » Scarce human resources for the TICs staff; » Small market (resulting in high average fixed costs).	» Increase awareness of the need for certification; » Support GDA to expand its accreditation capacities.

Source: Own elaboration

[39]Interview with GDA staff.

5.7 QUALITY PROMOTION STAKEHOLDERS

5.7.1 Institutional stakeholders for quality promotion

The main organisations involved in the development and dissemination of culture for quality in Albania are: i)_the Albanian National Extension Service (ANES), ii) the Agriculture Technology Transfer Centres (ATTCs) and, iii) the Albanian Investments Development Agency (AIDA); other important stakeholders include business associations, media, international development projects, academia and consumers. The activites and fuctions of ANES, ATTCs and AIDA are outlined below.

Main stakeholders the development of culture for quality

» **ANES.** Public extension service provides free of charge information, advice and training to farmers and agri-businesses. Farmers are the main target of ANES activities. The work of ANES is based on a yearly program where topics of relevance are chosen based on surveys and expert choices, in cooperation with MARD experts and ATTCs;

» **ATTCs.** These semi-autonomous units subordinate to MARD are responsible for performing applied research activities and transferring know-how to farmers communities, prioritizing innovations and quality. There are five ATTCs, each specialised in one or more topic, but also expected to provide a wider range of services to farmers and other value chain operators in the region where they are located. The ATTC relevant to the QIS for the F&V sector are: i) ATTC Lushnje (vegetables in protected crops and open field), ii) ATTC Vlora (micropropagation, saplings pre-multiplication centre), iii) ATTC Fushe-Kruje (laboratory, IPM practices application, fruit trees cadastre).

» **AIDA.** The aim of AIDA is to enhance the competitiveness of the private sector, to strengthen the export potential of the country to promote/ support foreign direct investment in Albania, and to promote the country's tourism potential. As part of its mission, AIDA promotes exports of goods and services and provides assistance to SMEs for this purpose (AIDA, 2022). Its mission includes promoting a culture for quality, developing know-how on legal requirements for export and raising awareness on different aspects of Quality for Value Chains.

Other institutional stakeholders in the development of culture for quality

Donors and development agencies: Efforts are being made to foster synergy through the One UN approach and the Agenda 2030 framework. In addition to the activities performed by UNIDO, SDC, UNDP, GIZ and FAO are implementing development projects and interventions which are related to the issue of sustainable agriculture.

Academia/research: Agriculture-related research is dominated by state-owned institutions, primarily universities and public research institutes. In addition to ATTCs, universities play a key role in applied research. Three universities are particularly involved in QI issues in the field of agriculture and food production, namely: i) the Agricultural University of Tirana (AUT), ii) the University of Tirana (Faculty of Natural Sciences) and, iii) F. S. N. University of Korça (Faculty of Agriculture).

5.7.2 Non-institutional stakeholders for quality promotion

The role and contribution of non-institutional stakeholders in the promotion of culture for quality can be summarized as follows:

Media: The media plays a crucial role in shaping the behaviour of policy-makers, farmers, consumers etc. Media information regarding non-compliance with food safety and quality standards affects consumer awareness and concerns about food safety. Alerts are documented in brief news reports or special documentaries. Media coverage also exerts pressure for more assertive action from inspection and conformity assessment bodies, as well as for overall QIS improvement.

Business Associations: There are several specific umbrella associations operating in the agricultural sector.

» *International Chamber of Commerce of Albania - ICCA :* ICCA is a member of ICC World Chambers Federation, thus being the authority in charge for the issuance of the certificate of origin[40]. ICCA has a clear and specific role in the QIS;

» *Albanian Agribusiness Council (KASH)*: this is the largest agribusiness sector association. It encompasses all sectors of agribusiness and is a member of other entities such as the Economic Consultative Council;

Sector associations. Smaller associations in specific value chains are established. There are three F&V sector associations, namely: i) ADAD, which is more representative of fruit growers; ii) Exporters Association, and; iii) Syndicate for United Farmers.

[40]The Certificate of Origin is a document certifying the non-preferential origin of the goods. The Certificate of Origin is issued by ICCA based on a written request from the person concerned. Ref: https://certificates.iccwbo.org/
This certificate is different from the Certificate of Origin Form A, which is a document certifying the Albanian preferential origin of goods exported to countries which have granted trade preference to Albania on the basis of the General System of Preferences (GSP). The certificate of origin Form A is issued by the Customs authorities where the customs export declaration is submitted, following a written request from the exporter (see also https://dogana.gov.al/english/dokument/659/certifikata-e-origjines)

These last two associations are more representative of vegetable growers' interests, but have limited geographical coverage (in the regions of Berat, Fier and Lushnje).

Other professional associations: there are other smaller associations focused on specific product categories or business functions, the most relevant being: i) the Institute for Organic Agriculture and, ii), the Albanian Association for Marketing.

BOX 11: LEVEL OF ENGAGEMENT OF BUSINESS ASSOCIATIONS IN RAISING AWARENESS ON QUALITY

According to 68% of interviewed market operators in the F&V sector, it was reported that the existing associations are not raising awareness on quality issues or promoting quality in the value chain. However, more than 60% of the F&V interviewees reported that their business has participated in quality awareness activities, organised by specialised service providers or consultants in the framework of the capacity building initiatives implemented through international development agencies.

Source: UNIDO/GQSP 2023 Survey

Consumers' Associations: Consumers' associations are weak and not very well-organized. The *Albanian Consumers Association* and the *Commission for the Protection of Consumers* are the main entities.

Main challenges for non-institutional stakeholders

» *The components of the Agricultural Knowledge and Innovation System (AKIS) are fragmented and scarcely coordinated.* This is due to institutional and operational gaps: ANES and ATTCs objectives, focus and funding are provided by MARD, while AIDA depends on MEF and academia from the Ministry of Education and Sports.

» ANES coverage is scarce, while the technical content of the advisory services is often not up-to-date and is focused on production issues rather than on quality standards;

» Research activities and the technology transfer role of academia and vocational schools[41] is limited and not integrated with the ATTCs yearly activities.

There is a clear need for capacity building for staff, premises and logistic upgrading (Zhllima, 2023) for institutions providing advisory services and technology transfers at Albanian farms; however, these improvements would have a limited impact without an increased synergy between AKIS components.

A possible approach to increase synergy already adopted at the regional level is the application of a demand-driven approach similar to EIP Agri Operational Groups (EC, 2023f). In this respect, SWG is deploying some efforts to establish Operational Groups in Albania to address both safety and quality challenges influencing the competitiveness in agri-food sectors, including the F&V sector.

An experience in increasing the synergy of AKIS components synergy is also provided by the Agricultural and Rural Development Fund ARPDF. Since 2022, it has been supporting MARD in providing extension services to farmers and bolstering the capacity of ANES to provide such services; this action is implemented through the Agricultural University of Tirana. Improving QI is a substantial part of this initiative.

Main challenges for non-institutional stakeholders

Improving Culture for quality is the key to improving the QIS in Albania:

» In the food business community, the main focus should shift from formal compliance (documents, certifications) to actual compliance, i.e. awareness and knowledge of the different aspects of food safety and quality and acknowledgement of the importance of compliance with requirements as a pre-requisite for staying in the business and not as a rule to be formally complied with;

» In addition to a greater focus on compliance, non-institutional stakeholders should also perform bolder advocacy and lobbying actions towards institutions with a focus on: i) filling some important legal gaps, such as alignment with EU marketing standards (Common Market Organization, "secondary CMO legislation" and "Breakfast Directives") and improvement of the traceability system and ii) improving the effectiveness of the inspection system;

» Among the general public, awareness of the risks of food safety hazards and the importance of consuming qualitative food is already high, but there is little trust in QIS and in institutionalised and formalised systems in general (including the quality system) and high trust in personal relations with primary food producers or neighbourhood retailers.

The role of non-institutional actors in improving this situation is even more important than the role played by institutional actors.

At present, the contribution of sector product associations and consumer associations to this goal is limited, as associations are generally weak. The advocacy and lobbying influence of lead individual entrepreneurs is generally stronger than that of sector associations.

The media should be also more systematically engaged in increasing consumers' awareness of culture for quality.

[41]There are 34 public vocational schools in Albania, out of which nine schools provide agricultural qualifications and one vocational school in Albania provides forestry qualification (in the city of Shkodër).

A synopsis of the gaps, challenges and recommendations aimed at enhancing the role of institutional stakeholders (AKIS) and non-institutional stakeholders (sector associations, interest groups, media) in promoting a culture for quality is provided in **table 5.10** (for institutional stakeholders) and **table 5.11** (for non-institutional stakeholders) below.

TABLE 5.10: THE MAIN CHALLENGES AND NEEDS OF INSTITUTIONAL STAKEHOLDERS FOR THE PROMOTION OF CULTURE FOR QUALITY IN ALBANIA

PROFILE	CHALLENGES
ANES - advice and training to farmers and agri-businesses, including use of agricultural inputs **ATTCs** – Technologies and knowledge transfer to primary producers **AIDA**: Support to SME development and export *Academic institutions (AUT, UT and F.N.Korce):* education and research	» There is no "one stop shop" to provide information on export procedures, legal requirements and most common standards for export » AIDA export guide is limited to market practices » AKIS system is fragmented and not structured as a coherent system » Overload of ANES with different tasks, as compared to resources » Limited interrelation between ANES and Academia » Limited ATTC outreach to value chain operators » Poor engagement of the Universities in conducting applied research for QIS components
	RECOMMENDATIONS
	» Support the establishment of an effective and efficient AKIS which can better disseminate information and raise awareness on QI » Increase awareness on standards and protocols » Increase capacities and cooperation of academia, ATTC and ANES » Establish operational groups to address quality problems building on the EU example » Strengthen academic capacities for applied research (e.g. climate change aspects), promote quality and provide testing services » Promote a culture for quality among consumers through media

Source: Own elaboration

TABLE 5.11: NON-INSTITUTIONAL STAKEHOLDERS: MAIN CHALLENGES AND NEEDS FOR THE SECTOR ADVOCACY TOWARDS A BETTER QIS IN ALBANIA

PROFILE	CHALLENGES
Associations of value chain operators » Two umbrella-like associations: i) International Chamber of Commerce Albania and ii) Albanian Agribusiness Council (KASH) » F&V sector and export-oriented associations *Professional associations:* Institute for Organic Agriculture, the Albanian Association for Marketing *Consumer associations and interest groups* » Albanian Consumers Association » Commission for the Protection of Consumers; Media » Some specialized programs in public broadcast media » Few specialized magazines for food professionals, mainly distributed in social media[42]	» Scarce cooperation and poor financial support for the business associations » Poor representation and low impact in terms of regulatory framework » Poor advocacy towards quality assurance » Poor lobbying and advocacy influence » Insufficient focus on key issues
	RECOMMENDATIONS
	» Institutional QIS subjects should engage media in a long-term effort to build up a culture for quality among the public, introducing specific communication slots into infotainment broadcast » UNIDO and other relevant international development cooperation initiatives should communicate with sector associations on the necessity to focus lobbying and advocacy activities on fixing key legal gaps (such as marketing standards and traceability) and shortcomings in inspection function » Introduce and implement a dissemination programme to communicate the structure and functioning of the QIS to non-institutional stakeholders » Increase advocacy for a more transparent and independent market surveillance system

Source: Own elaboration

5.8 CULTURE FOR QUALITY AMONG CONSUMERS AND VALUE CHAIN STAKEHOLDERS

5.8.1. Consumer awareness related to food safety and quality standards

Consumers in the EU and other developed countries (e.g. US and Switzerland) are characterized by high and growing awareness about food safety and quality. Recent studies suggest that over a third of Europeans have a very high or high level of awareness of food safety topics. On the other hand, consumers in the EU tend to trust institutions which are in charge of food safety control. According to a recent study, more than 8 out of 10 respondents trust doctors (89%), university/publicly funded scientists (82%) and consumer organisations (82%) for information on food risks. Likewise, trust in national and EU institutions is also high, at about two-thirds (EFSA, 2023).

In Europe, there is a growing awareness and demand for different voluntary standards. A growing number of European consumers (37%) report recognizing the Fair-Trade logo. Whereas, in the case of organic food, the growing demand is not only linked to food quality (consumers use organic production as a quality cue) but also environmental protection. A smaller but still significant share report recognizing the EU's PDO logo (Goudis and Skuras, 2021).

The increasing awareness and demand for higher standards related to food products, coupled with the growing requirements from EU institutions and supermarket chains (in the case of the EU, which is also the main targeted market for the selected value chains), implies that the presence in such markets is and will continue to be increasingly challenging.

Although the focus of the study is the export market,

[42] See https://ubgreen.al/, https://agroweb.org, https://www.artigatimit.com/ and https://shijeonline.wordpress.com/

local consumer behaviour and expectations are also key factors influencing the orientation of the local industry towards standards. Therefore, it is important to have insight into local consumers too.

Consumer behaviour in Albania reflects the concerns about serious issues with the national food safety control systems. The issues related to food safety and their perception by consumers have been identified by several studies.

As food safety is a credence attribute, the use of cues to deduce safety (and other aspects of quality) is linked to trust in the source of the information. In developed countries with consolidated institutions (such as the case of EU countries and institutions, highlighted above), consumers tend to trust public institutions and/or supermarket chains to guarantee food safety. In the case of countries with a poor institutional framework, such as Albania, the level of trust in public institutions to guarantee food safety may be lower and consumers might place more trust in retailers than in public institutions for guaranteeing food safety (Zhllima et al. 2015; Imami et al. 2011). In addition to developing trust in retailers, when possible, consumers prefer to buy food directly from producers as a strategy to ensure safety and quality, which is common in the case of some agrifood products (Imami et al. 2013). Consumer trust has traditionally been closely linked to the length of the supply chain: the shorter the distance between consumer and producer, the higher the trust (Imami and Skreli, 2013). In broader terms, consumers would even prefer in principle direct purchase from farmers than purchase from a trusted supplier/trader.

Purchasing directly from producers not only provides a perceived assurance of quality but also of the product's origin. Origin and brand reputation are important attributes for Albanian consumers to guarantee food safety. Information about expiry date, domestic origin/ local origin, and knowing the producer or the brand name are the most frequently used food safety and quality cues for Albanian consumers. Previous study findings indicate that university educated female consumers with higher income are, on average, more concerned with food safety measures. Women and consumers with higher levels of education tend to check food safety and quality-related information more frequently than men or individuals with lower levels of education. Also, younger consumer groups and higher income groups use food safety and quality related information more often (Haas et al. 2019).

5.8.2. Value chain stakeholder's awareness about food safety

Most Albanian farmers across agri-food sectors lack information or awareness related to food safety standards and other relevant standards (e.g. plant health, environmental standards etc). Lack of awareness about standards results in standards non-compliance, posing a threat to consumer health and also resulting in lower market access (especially in the case of exports) and constraints in access to funds whose access is conditioned by meeting certain standards in a documented way (e.g., IPARD) (FAO, 2020).

One of the major concerns related to PPP is not only quality (farmers often complain about quality) but also the timing and the way they are administered (which can result also from lack of proper advice). To reduce pest and disease risk, farmers tend to use excessive sprays, resulting both in high costs but also potentially high residuals, exposing consumer health to potential risks. In order to address this concern, there is a need to have functional prognosis centres and systems, with an efficient network of weather monitoring stations, coupled with advice and awareness for farmers (AGT-DSA, 2021).

Other issues regarding the behavior, knowledge, and decisions about the utilization of input include the following: Inappropriate nitrogen fertilization, which calls for a comprehensive management strategy that includes everything from soil analysis to fertilizer selection, application, and use.

Inappropriate types and use of pesticides, which, if not properly controlled, may result in degradation of natural resources and water contamination, as well as adverse effects on biodiversity, natural areas, flora, fauna, and habitats, are poorly understood. IPM (Integrated Pest Management) is one such technique. Uncontrolled digging of irrigation wells is another issue, especially for greenhouse vegetables. Irrigation water, extracted from various sources, whether surface or groundwater, contains variable amounts of salts, sludge and other suspended materials. In many parts of coastal rural areas, due to failures in irrigation systems, many farmers have resorted to digging their own wells (an investment of few hundred Euros). In addition to the environmental impact, this issue is also posing challenges in areas with high water salinity, consequently affecting soil and production (more common in greenhouse production clusters near coastal areas). Even at the farm level, there is a lack of awareness about this aspect.

Albanian exporters practices related to standards

Collection points, especially exporters, are doing more to raise awareness among supplying farmers and, in some cases, are working with them to establish traceability and eventually Global-GAP certification. A growing number of horticulture producers have obtained Global GAP certification – Global GAP represents an advantage to export to more attractive EU markets. Indeed, thanks to Global-GAP certification, Albanian horticulture products now are present also in Scandinavian markets, which on one hand are very demanding in terms of standards, while on the other hand offer attractive prices. While some leading exporters are making efforts to keep improving standards, there are traders who neglect to do so.

According to the survey conducted in the context of this study, most exporters (2/3 of interviewees) apply GAP (Good Agriculture Practices) standards.

5.8.3. Leadership / governance, engagement of people and relationship management

Contracts play a crucial role in securing stable sales and are equally essential for enhancing traceability and raising standards. Only 33% of the interviewed F&V operators stated that their sales are based on contracts. However, even when contracts are in place, it is uncommon for these contracts to specify precise quantities and prices in advance. So far, there has been only one reported instance in the vegetable sector where an exporter has established fixed prices with farmers for gherkins that are exported for processing. In the case of vegetables (especially greenhouse vegetables), key stakeholders (e.g. Doni fruits) deal repeatedly with a core group of farmers.

In addition to wholesalers who deal with a wide range of horticulture products, for watermelon there are two integrated input suppliers who produce seedlings and export at the same time, often engaging in some type of contract farming. Similar to the case of vegetables mentioned above, watermelon / melon key stakeholders (e.g. Doni fruits, Biti & CO and AgroKoni) also tend to deal repeatedly with a core group of farmers and invest into these relationships in a similar variety of ways (e.g. pre-financing inputs, advisory services, and output market access).

There are cases when exporters provide agronomic technical assistance and supervision to ensure standards in production at farm level – one prominent experience is the one developed by Doni Fruits in the context of GlobalGAP certification (see the following box). As a result of strong value chain governance, Doni Fruits has been able to supply leading supermarket groups abroad and leading supermarket and fast-food franchises in Albania. The company has a lab through which it can conduct basic residual analysis for internal use.

When asked about the use of inputs in F&V sector, 38% of the interviewees said that they were informed about agricultural inputs allowed in the EU by foreign buyers, 19% of them said that they were notified by input suppliers and 33% said that they were informed by other sources.

In addition, 82% of those surveyed stated that they acquire knowledge on export-related product standards, size-specific codes, and quality and size tolerances from customers, while 12% reported relying on the applicable laws and 6% mentioned that they obtain information from public institutions. Buyers and certification agencies are the major sources of information on quality standards. Some exporters claim that international consumers who have access to reliable laboratories and broader knowledge of product procedures put pressure on Albanian manufacturers by demanding compensation for the reasons behind poor quality. Customers commonly complain to certification authorities over the lack of defined requirements, which damages the credibility of the certification body.

In the case of F&V operators, 53% indicated that their businesses have a quality management system in place. Of those businesses with a quality management system, 75% reported having an individual responsible for quality management, while the remaining 25% stated that there is no designated person overseeing quality management.

BOX 12: GLOBALGAP GROUP CERTIFICATION

Through GlobalGAP certification, Albanian fruit and vegetable producers and exporters have demonstrated that they can meet the safety standard requirements of some EU markets (especially leading supermarket chains) and, in securing contracts with EU buyers, they have achieved better market access and prices for farmers.

Doni Fruits is one of the leading exporters of horticulture products in Albania and among the first to introduce GlobalGAP group certification.

Ensuring high food safety standards is a top priority for Doni Fruits. Doni Fruits is aiming to expand its presence in higher end markets, especially northern EU markets, which offer more attractive prices but also have very demanding food safety standards. Considering also the food safety situation in Albania, internationally recognized certifications that assure buyers of compliance with food safety (and other relevant) standards, such as GlobalGAP, are essential to target the demanding EU market.

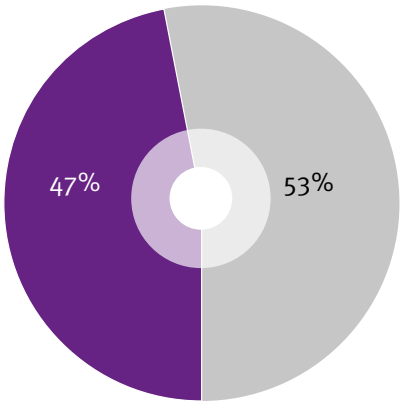
Recently, the company has cooperated initially with 58 farmers (the number of farmers has increased in the subsequent years) who were certified for the first time under GlobalGAP group certification, with the support of SDC RisiAlbania. GlobalGAP group certification requires the establishment of a Quality Management System (QMS) and team coordinated by the buyer, in this case Doni Fruits. On one hand, they train, advise and support the farmers in the implementation of the standards and on the other hand, they organise inspections and audits for each of the farms in order to ensure that they are complying with the requirements. As a result, Doni Fruits has expanded its sales to include supermarket chains and restaurant chains, both within Albania and internationally.

Source: Imami et al. (2021)

FIGURE 5.1: INVOLVEMENT OF STAFF IN QUALITY MANAGEMENT AMONG FRUIT AND VEGETABLE EXPORTERS

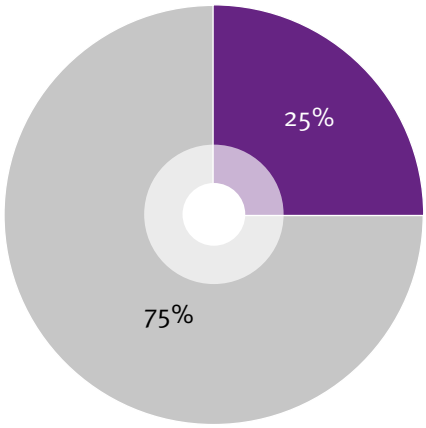
Answer to the question:

"Does your business have a quality management system?"



Answer to the question:

"If yes, is there someone who is responsible for quality management?"



Source: UNIDO/GQSP 2023 Survey

5.8.4 Process approach, evidence-based decision-making and improvement

Laboratory analysis is the cornerstone of the evidence-based improvement method. Practically all exporters subject their goods to laboratory examinations in response to customer requirements. Export-oriented operators conduct lab analyses only when mandatory, otherwise they neglect them. Albanian laboratories are not yet prepared for providing a large array of analyses.

Having certain in-house laboratory capacities might make it easier or more efficient for exporters to control standards. Few processors have mini labs. For those who do not, most of the products supplied by farmers are analysed based on a physical inspection of elements such as their colour, texture, odour and taste.

Based on physical and chemical soil surveying, farmers don't use chemical fertilizers and pesticides often. Only nearly one-fourth of greenhouse and watermelon growers surveyed in early 2017 had performed irrigation water or soil analysis, according to the survey (ISETN, 2017).v This is worrying considering that investments – especially in the case of greenhouses – are considerable, while soil salinization is a major concern in the regions where the greenhouses are located. Thereby, fertilisation may be not only inefficient (economically) but also may result in increased residuals in the soil and underground water. Despite the existence of local laboratories in Divjaka, such as the Urban Lab, farmers seldom rely on laboratory analysis.

As a result, many farms are characterized by low performance in terms of yield and production quality.

As highlighted earlier, some exporters provide agronomic technical assistance and supervision to ensure compliance with the standards. Furthermore, some exporters apply differentiated prices based on quality. However, almost 2/5 of the interviewees report that they do not differentiate payment based on quality.

TABLE 5.12: SUMMARY OF CHALLENGES AND RECOMMENDATIONS FOR EACH VALUE CHAIN NODE/SEGMENT

VC node	Challenges	Recommendations
Inputs suppliers	» Lack of system of control	» Need for an information system; » Need for a technology transfer system (e.g. electronic system similar to drugs system)
Farmers	» Scarce compliance » Poor information and awareness about standards » Low quality PPP » Partial implementation of GlobalGAP	» Increase the capacity of the inspection and testing system » Reduce the overlaps between inspection bodies and establish an online system of control for inputs » Provide capacity building and investments at collector and consolidator levels
Exporters, processors	» Lack of traceability, poor control, poor implementation of GAP, scarce use of certification, scarce use of contract farming, scarce availability of mini labs	» Introduce digitalisation for traceability » Increase the ICT sustainability map and TRACE » Strengthen CIT capacities » Support projects for AKIS by establishing EIP relevant Operational Groups
Supermarket chains	» Weak contract farming and scarce use of quality signs	» Support contract farming pilot projects » Introduce quality signs for supermarket chains
Consumers	» Limited awareness about food safety » Lack of awareness about different certifications	» Design consumer education campaigns related to food safety and quality, including information about key certifications

5.9 A SYNTHESIS OF QIS EVALUATION IN ALBANIA

In addition to the analyses of the secondary sources, documents and studies, in order to perform an overall analysis of the QIS in the F&V sector, various participatory methods were used, namely PESTEL, SWOT and stakeholder mapping, as explained in the Methodology chapter. The results are provided in this subchapter.

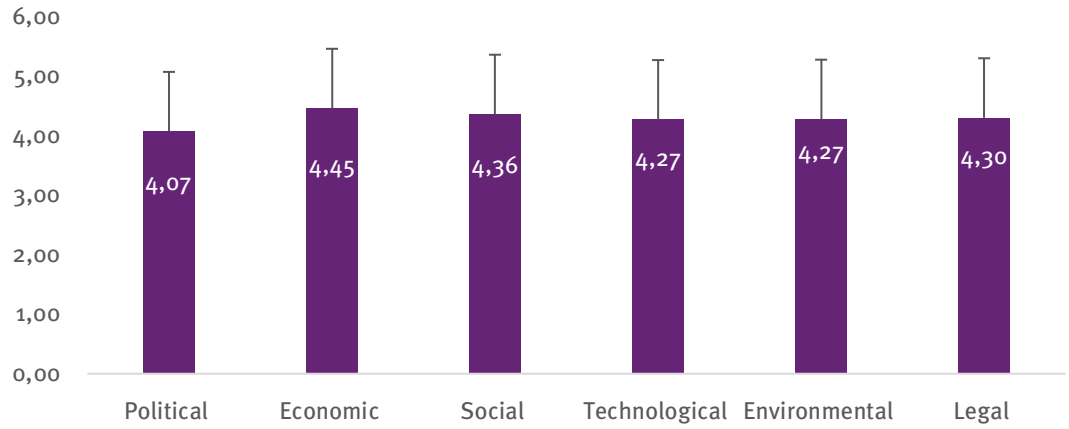
The PESTEL analysis of the business environment

The outcomes of the participatory PESTEL analysis show that economic, social and legal aspects of the business environment in F&V sector are slightly more prone to contribute to the improvement of the QI, while political, technological and environmental components are likely to provide a slightly lower contribution. However, all components are scored by stakeholder representatives near or above the median score "4".

The component with the highest score is the economic one and the one with the lowest score is the political one, meaning that support policies, trade policies and consumer protection policies and the overall government regulatory role are considered to have a low contribution to quality.

A more specific assessment of the contribution of specific factors to QIS development should be based on the analysis of the sub-components that are included in each component. **Figure 5.3** shows all the sub-components of the PESTEL analysis factors and their relevant scores.

FIGURE 5.2: RESULTS OF THE PESTEL ANALYSES ACCORDING TO THE MAIN COMPONENTS



Source: Own processing based on discussions among workshop participants

FIGURE 5.3: RESULTS OF THE PESTEL ANALYSES SCORING ACCORDING TO SUBCOMPONENTS

Source: Own processing based on discussions among workshop participants

Based on the assessment of each sub-component, the most interesting and important factors driving change in QI performance and development were identified and commented. The assessment provided by stakeholders on the main single factors that are presently impacting QIS development is summarized in **Table 5.13** below.

TABLE 5.13: MAIN FACTORS PRESENTLY AFFECTING QI DEVELOPMENT, TRENDS AND IMPACT

Driving factor	Trend	Present impact on QIS
International trade (economic)	Increasing	Positive
Consumer awareness of quality and safety issues (social)	Improving	Positive
Migration (social)	Persistent negative net balance	Limited negative impact
Education (social)	Increasing	Limited positive impact
QI technical capacity (technical)	Improving	Not yet having impact
Innovation at farm level (technical)	Limited, only in larger farms	Limited positive impact
Sector associations	Weak, not improving	Very limited impact, potential to become positive
Climate change adaptation (environmental)	Weak capacity, not improving	Resistance factor to QI improvement
Policies and regulation for sustainability (environmental)	Limited, scarcely promoted	Limited impact on QI
Law enforcement (political)	Weak	Negative impact
Political focus on QIS (political)	Low (lowest score)	Negative impact

Source: Own processing based on discussions among workshop participants

The negative impact of low political focus on QI is particularly worthy to be described in detail, as political will serves as the key factor for shaping the QIS development policy and considering that this factor got the lowest score in PESTEL analysis. According to stakeholders' assessment and perception, the scarce political focus on QIS development prevents QIS institutions to achieve their full potential, thus creating a gap between legal responsibilities and provisions and actual function. Support to inspection institutions and therefore their contribution to QIS improvement is not considered satisfactory.

SWOT Analysis

A participatory SWOT analysis was conducted, in accordance with the methodology outlined in chapter 2 above. The integration of PESTEL and SWOT analysis exercises provides a clear image of the main factors that sector stakeholders deem important for sector development and their impact on QIS development: not all important factors affecting sector development necessarily have an important QIS implication or impact too, and all the factors which are influencing QIS development are among the main factors of concern for the stakeholders' assessment of sector development issues.

The ranking of weaknesses and threats, made in accordance with stakeholders assessment, is summarized in **table 5.14**.

TABLE 5.14: SYNOPSIS OF MAIN WEAKNESS FACTORS AND THREATS TO F&V SECTOR DEVELOPMENT

1	Poor culture for quality, insufficient knowledge and awareness of safety standards, limited implementation of GAP	1	Low demand for quality standards from the downstream value chain
2	Lack of traceability and control along the value chain	2	Depopulation of rural areas increases labor shortages and reduces labor availability, which affects quality
3	Limitations on access to qualified expertise and technical assistance	3	Low pressure to increase quality from destination markets
4		4	Lack of applicable and up-to-date information in Albanian on legal requirements and marketing standards
5		5	High production risk related to the effects of climate change, with increasing concerns related to plant protection issues

Source: Own processing based on discussions among workshop participants

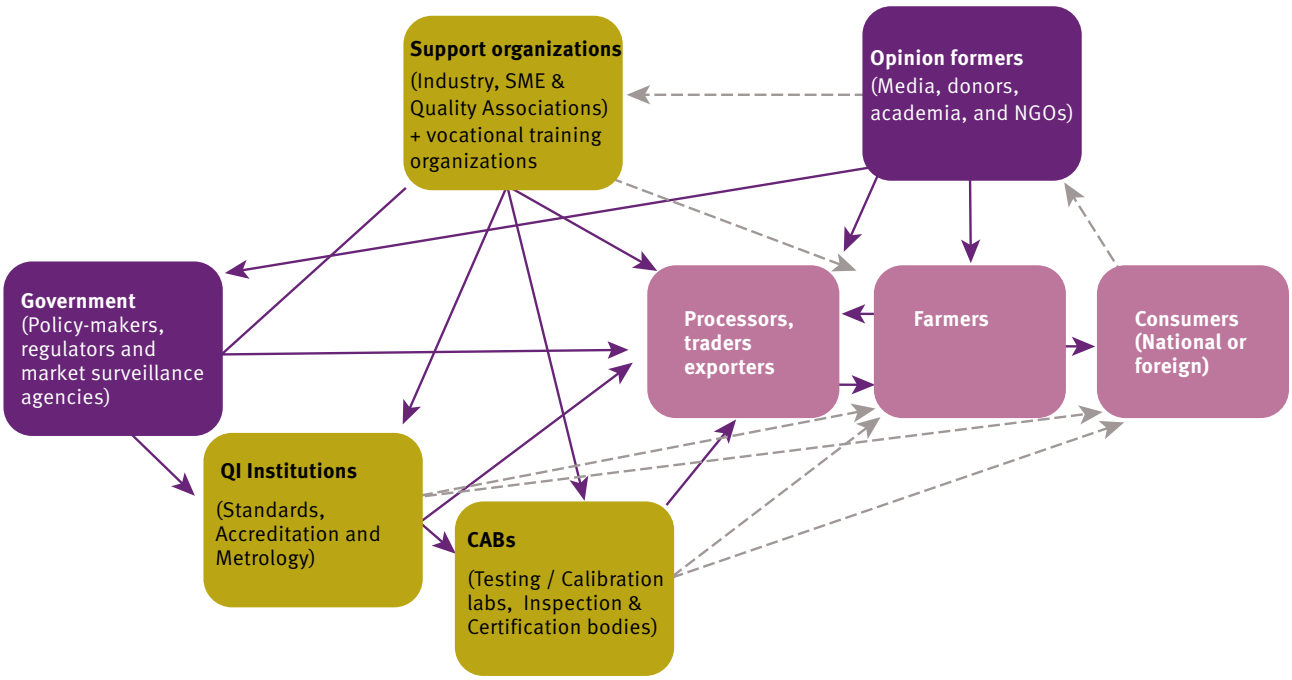
The holistic view to QIs gaps

The accelerated and widespread expansion of agricultural trade and the emerging requirements from consumers resulted in a need for restructuring of the QI system in Albania.

QIS in Albania is fragmented, with various institutions having ill-defined or overlapping roles; cooperation is scarce and not embraced as a regular practice.

Figure 5.4 depicts the types of relations between QI components. The high occurrence of indirect relationships is evidence of a non-functional QIS. The most vulnerable aspects of the QIS are the relations between farmers and the core QIS components, namely the regulatory and policymaking institutions, QI institutions and the conformity assessment bodies. In addition, the position of opinion formers is peripheral and consumers are entirely disconnected from the broader the QIS.

FIGURE 5.4: THE RELATIONAL DIAGRAM OF THE QIS IN ALBANIA



Source: Own elaboration based on the UNIDO (2022) diagram

Considering the dispersed relations, the ability of the QI system to function is limited, as the performance of each component of the QI system depends on the performance of the other components. For instance, the poor performance of QI institutions might compromise the usefulness of laboratories. In downstream segments, the poor performance of the laboratories can undermine the quality of the certification, thus reducing the trust of foreign buyers. In addition, uncoordinated action of VC actors and focus on formal (documental) rather than actual compliance reduces the impact of any investments carried in a single component of the QI.

However, considering that private investments through certification (e.g. GlobalGAP) cannot control the lower segments of the value chains (especially control for MAPs is weaker than for F&V), efforts should be concentrated on implementing and maintaining a single QI national system. Limited attention from supermarkets regarding compliance with quality standards results in a lack of pressure on business operators and diminishes consumer expectations. This is related to the overall culture for quality, which needs to be promoted by the relevant stakeholders, namely business and consumer associations, academia, media, etc.

In summary, the development and proper operation of a QI demands considerable financial and human resources, which requires a larger presence of the VC operators as well as a stronger engagement of the consumers.

The results of the study reveal that laboratory results can only be trusted if local laboratories establish a stronger relation with VC operators and associations and increase their offer with reputable and accurate results. In the absence of feedback from domestic consumers, testing laboratories, auditors and certifiers have to be monitored and strengthened in order to improve their reputation and be recognized and accepted by clients in foreign markets.

Meeting safety and quality standards and demonstrating compliance cannot be achieved without investments and increased costs for both the public and private sectors. Conformity, testing and inspection institutions remain the weakest part of the system. In a country where trust toward institutions is low and law enforcement is weak, there is a need for private operators to dedicate their energy and financial resources to ensuring better compliance along the entire supply chain.

At the level of value chain operators, increased cooperation among exporters and an enhanced role of business associations are indispensable to increase their quality compliance and pursue conformity assessment procedures. The present individualistic approach is generating higher costs and lower quality in the whole system, as each VC operator aims to establish a vertically integrated business and a system of QI services of their own, procuring abroad the QI services that they cannot develop, as trust in local QI service providers is low. This approach can easily render exporters uncompetitive and vulnerable toward foreign buyers.

Awareness should be raised among decision-makers in the public and private sectors to prioritize a holistic approach to QIS development, provide budgetary support and competent human resources with the objective to identify and exploit existing and potential synergies in a coherent application of the EU “farm to fork” holistic approach, and establish an effective feedback system for identified hazards. To develop a more coherent and cohesive QIS, the following priority areas should be targeted: i) attaining legal alignment, ii) establishing a more functional traceability system, also to improve the hazard feedback system, iii) increasing administrative capacities, iv) applying the proper monitoring and support mechanisms for QI improvement:; in particular, the efficiency and effectiveness of inspection bodies should be increased v) expanding the feedback system for identified hazards, not only for regulatory enforcement but also for providing advisory services aimed at improvement.

Another major issue is the transparent engagement of private sector organisations in the development of QI functions overseen by public Institutions. This will require a larger involvement of private sector representatives in the advisory boards and technical committees and increased efforts for openness and dialogue at the QI institutions, with a focus on GDA, GDS and GDM.

Participation should include active consultations and collaborative decision-making in drafting legal acts, compiling regulatory documents and coordinating awareness-raising activities.

Last, but not least, UNIDO and other development cooperation partners should enhance their coordination efforts, guided by a detailed roadmap involving stakeholders from the targeted VCs.

6

PAST AND ONGOING INITIATIVES AND SUPPORT SCHEMES

6.1 BUSINESS ENVIRONMENT INCLUDING NATIONAL DEVELOPMENT STRATEGY/ POLICIES, ETC.

Main strategic documents and policy framework

After being granted the status of EU candidate country in June 2014, Albania made some progress in aligning its agricultural policy with the EU agricultural acquis. In 2007, the country adopted the Law on Agriculture and Rural Development, which constitutes the main legal framework governing the planning of agricultural policy.

After 2020, the policy framework was updated in terms of strategic documents. The National Strategy for Development and Integration 2021-2027 and the Programme of the Albanian Government (2021-2025) are the reference documents that define the overall goals and general objectives for the agricultural and rural development policies. A Strategy for Agriculture, Rural Development and Fishery (SARDF) 2021-202743 and an Action Plan are already available, as reflected in the National Plan for European Integration (PKIE) 2021-2023, within cluster 5 and in relation to Chapter 11, 12, 13 and the relevant horizontal legislation of Chapter 27 (Environment and Climate Change). In the Policy pillar of this Strategy, the general objective is as follows: "Promoting sustainable production and quality of food through the development of a competitive and innovative agri-food sector". The SARDF 2021-2027 is also in line with Sustainable Development Goals (SDGs) 2, 5, 12, 13, 15, and 17) (RCC, 2020) and embraces the main concepts and requirements emerging from various EU Farm to Fork Strategy for a sustainable agrifood sector. A very important policy framework is also the adoption of the Instrument for Pre-Accession Assistance for Rural Development Programme (IPARD III) for the period 2021-2027 (EC, 2022). The policy intervention areas of the IPARD III programme are aligned with the main objectives of the SARDF 2021-2027. SARDF 2021-2027 implementation of medium-term priorities is detailed in annual action plans, which also provide the legal basis for setting up national support schemes (Zhllima, 2021).

6.2 FISCAL AND TRADE POLICIES

Fiscal policies

Fiscal policies related to agricultural inputs were subject to revision. The VAT registration threshold in Albania is an annual turnover of over ALL 10 million. Any person providing taxable supplies and whose annual turnover does not exceed ALL 10 million is not required to register, although voluntary registration is possible. Considering this value, a portion of Albanian farmers and traders are not subject to taxes declaration. In 2022 changes were introduced to the law "On value added tax" including a reduced VAT rate of 10% of the supply of agricultural inputs, such as chemical fertilizers, pesticides, seeds and seedlings, except for hormones classified under code 2937 of the Combined nomenclature of goods and the ii. exemption from VAT for the import of machinery and equipment in the context of larger investments.

Starting from 2021[44], beneficiaries of the support scheme for agricultural fuel receive fuel free of charge as an equivalent of fiscal exemption. The fuel price is exempted from the excise tax, tax on roads, carbon tax and VAT – counting for 44% of the fuel price. This price is converted into an equivalent quantity of fuel free of charge: the fuel required for conducting operations with agricultural machinery multiplied by the ratio of tax exemption to the average fuel price of the previous year. The overall amount distributed was approximately ALL 660 mln. In 2022, this measure was expanded to provide a higher amount of compensation for covering the additional costs arising from the rise in fuel prices due to the Russia-Ukraine war (CM, 2022). The support continued in 2022.

Trade policies

Local production has limited protection from international competition. Custom duty tariff for the main fruits and vegetables is 10% for 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/). In the case of processed fruits and vegetables, tariffs can reach to 15% depending on the type of product. For example, the tariff for ketchup, pickled vegetables and several types of fruit juices is 15% (but 0% for CEFTA countries). A large part of fresh fruits and vegetables is sold informally. As such, the few local operators who channel their sales through formal outlets (e.g., supermarket chains) face "unfair" competition. Additional modest costs are incurred for obtaining the Phytosanitary certificate (2000 ALL) and the certificate of origin (2000 ALL) and for undergoing the customs scanning procedure (23 EUR or 2500 ALL). In total, for any delivery, the cost of the procedures is about ALL 6500.

[43] The main specific objectives of SARDF 2021-2027 are to: i. Continue to improve the quality of life in rural areas and diversification of spaces and opportunities for economic activities. ii. Reduce inequalities in terms of living conditions between rural and urban areas iii. Increase exports through investments in the processing sector, facilitating capital enhancing investments and increasing access to new markets. V. Development of rural tourism by providing support mechanisms for women, youth and returned migrants. vi. Increase support for agriculture, livestock and rural development through direct support and IPARD III financing.

[44] Government of Albania Decision 1142/2020 "On defining the main criteria, the benefit quantity and the method of use of the fund allocated to the fuel support scheme for agriculture for the year 2021"

6.3 BUDGETARY SUPPORT POLICIES

Albania's budgetary support for agriculture has increased significantly between 2020 and 2021, reaching 2.6% of the GDP with EUR 68.3 million in 2021. The support amounts to EUR 54 per Ha or EUR 22 per inhabitant, which is still less than half of the average of the Western Balkan countries. Despite these trends, Albania still scores low in payments per hectare of agricultural land compared to the European Union and other Western Balkan countries like Kosovo. Agriculture and Rural Development Program Fund

Support for the fruit and vegetable sector since 2014 has been subject to frequent changes from year to year. Two measures that have received more regular support over the years are support for drip irrigation and support for collection points. In 2020, several measures supporting the fruit and vegetable sector ceased to exist. In 2020 and 2021, two types of support were granted through specific measures: i. the replacement of thermal plastic sheets for existing solar greenhouses for the production of vegetables and also ii. the replacement of thermal plastic sheets for tunnels for the production of strawberries. In 2022, the measure transformed into support for the construction of new solar greenhouses for the production of vegetables with a surface area of no less than 1 ha and no more than 5 ha per subject, including the installation of an irrigation system. In 2022, a measure provided support for seeds / seedlings and other inputs with ALL 200,000 per ha per season and no more than 2 seasons, for the cultivation of vegetables and strawberries in plastic tunnels for an area of no less than 1 Ha. In addition, in the same year, support for the automation and digitalization of farm work processes was granted.

A scheme that has experienced growth during 2020-2021 and has remained stable in recent years is the support measure for organic and certified organic farms (38%). For more than a decade, support has been provided for farms in the certification process, including fruit and vegetable farms. Support for organic farms during the transition period is as follows: ALL 100,000 for the first year, ALL 150,000 for the second year, ALL 150,000 for the third year and ALL 200,000 for a certified farm. In addition, since 2018, support for GlobalGAP certification for vegetables, fruits, grapes, olives, citrus and other certifiable agricultural crops has been provided at the rate of 50% of the total value of the tax invoice, for areas of no less than 3 Ha. Two other measures for the targeted sectors, namely cultivation of MAPs and plastic replacement/ greenhouse establishment, ceased to exist in 2023.

In 2021, ARDPF provided diesel at an equivalent value to cover total fuel tax exemption required for mechanical works on land, based on area-specific principles. In 2022, this measure was expanded to provide a higher amount of compensation for covering the additional costs arising from the rise in fuel prices due to the Russia-Ukraine war (CM, 2022). For a summarised view of the new measures introduced in 2023 in relation to the targeted sectors, see the box below

BOX 13: MAIN MEASURES OF RELEVANCE FOR THE F&V SECTOR FOR 2023

Measure on seeds and seedlings: Support for seeds/ seedlings and other imputations, at the amount of up to ALL 200,000 (two hundred thousand) per ha per season and for no more than 2 seasons, for the cultivation of vegetables, table grapes in greenhouses and/or strawberries in plastic tunnels for individual or group farmers, with a planted area of no less than 1 (one) ha and no more than ALL 1,500,000 (one million five hundred thousand) per applicant;

Measure on organic farms: Support for organic farms during the transition period is as follows: ALL 100,000 (one hundred thousand) for the first year, ALL 150,000 (one hundred and fifty thousand) for the second year, ALL 150,000 (one hundred and fifty thousand) for the third year and ALL 200,000 (two hundred thousand) for a certified farm;

Measure on GlobalGAP: Global GAP implementation and certification for vegetables, fruits, grapes, olives, citrus and other certifiable crops amounts to 50 (fifty) % of the total value of the invoice tax, provided that: i. it does not exceed ALL 175,000 (one hundred and seventy-five thousand) for an area of no less than 1 (one) ha;

ii. it does not exceed ALL 500,000 (five hundred thousand) for an area of no less than 3 (three) ha in

protected premises and no less than 10 (ten) ha in the open field.

Measure on fuel: support through the provision of oil for the performance of mechanized works in agriculture, at a value of up to ALL 1,328,000,000

Measure on markets establishment: Support for the construction of markets for agricultural products, markets for live animals or slaughterhouses for commercial companies with 100% state capital, owned by units of local self-government, amounting to no more than ALL 30,000,000 (thirty million) per subject

Source: ARDA (2022)

Investments under IPARD II and IPARD III

In addition to national schemes, another important funding source for investments has been IPARD-like and IPARD II, which has been co-funded by EC and Albanian Government. Under IPARD II, fruits and vegetables were eligible for support for two measures, namely Measure 1 (farm level), and Measure 2 (processing/collection/marketing etc) level. IPARD II support has enabled major investments in the sector. There has been a balanced distribution between both measures. At farm level, IPARD II has largely funded investments in greenhouses (almost half of the Measure 1 financing) with further significant initiatives in fruit orchards, on-farm investments (machinery and post-harvest facilities, such as storage capacities) and nut plantations. At processing/collection/marketing level, the major investments refer to sorting, grading and packing lines, fruit processing, fruit and vegetable handling.

6.4 OTHER DONOR SUPPORT INITIATIVES

Over the past decade, international development agencies like USAID, SIDA, FAO, and GIZ have supported the sector through various programs. Large processors have received grants from these agencies, including Promali, a program funded by Danida and implemented by SNV..

The recent extensive program implemented by GIZ,"Support to Agriculture and Rural Economic Development (SARED)" was initially followed by SRD (Sustainable Rural Development), which has now been concluded, and then by SRD2, which has just started. Through these programs, support has been provided to the selected value chains: (i) medicinal and aromatic plants, (ii) fruits and nuts, (iii) small ruminants, and (iv) rural tourism with the objective to achieve an economic transformation of rural areas in Albania which is valuable for the local population, including returnees. SRD2 puts a strong emphasis on innovation and particularly biological control/ fight of pests, to achieve a more sustainable and environmentally friendly agriculture. SDC has joined by providing support for SRD2.

The Food Safety Project "Support to food safety, veterinary and phytosanitary standards" a 5-million-euro programme funded by the European Union and implemented during 2019-2022 by the Food Safety Authority of Ireland in partnership with the Finnish Food Authority, the Irish Department of Agriculture, Food and the Marine and Creative Business Solutions in Albania.

In addition, FAO provided USD 340 thousand in the framework of the project: Development of the agricultural, agri - processing and rural sector towards EU membership; Strengthening of MARD in the EU approximation process and the development of SDG targets and indicators. One of the objectives of the project is to complete the "Framework conditions for producers and businesses for strengthening their competitiveness in the domestic and export markets" by developing implementing procedures for the product quality legislation and preparing by-laws to support the implementation of a new law on organic production;

During 2022, work was underway with "SAFIAL" Project (which aims to strengthen the institutions of the Albanian Ministry of Agriculture for food safety management), financed by the Italian government and implemented by the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) in Bari, Italy for investments in the laboratory services in Durrës, an enhancement of laboratory capacities and an expansion of the range of analyses performed in the microbiological and physio-chemical laboratory, as well as in the plant protection laboratory.

SDC Risi Albania has a component on agriculture and another on tourism. The project has supported the application of global-GAP certification, at group levels (RisiAlbania, 2023). The Risi Albania Project is supported by the Swiss Agency for Development and Cooperation (SDC), in partnership with the Ministry of Finance and Economy, and implemented by a consortium consisting of HELVETAS Swiss Intercooperation and Partners Albania. The overall goal of the project is to contribute to an increase in employment opportunities for young women and men (aged 15-29) in Albania. This goal will be achieved through: (i) enhanced growth and job creation by the private sector in three selected subsectors: agribusiness, tourism, and ICT (labour demand), (ii) improved access to job opportunities and labour market information and services (intermediation), and (iii) improved skills of young people by improving the offer of private training providers in the three selected sectors (labour supply).

Other initiatives are also being developed. The World Bank is expected to launch a new project "The Climate Resilient and Competitive Agriculture Project ($70 million)" which will focus on improving innovation in agriculture, enhancing smart irrigation, and improving access to local and EU markets (World Bank, 2023). In addition, USAID is being prepared to start a project on capacity building for agriculture, including MAPs and the fruit and vegetable sector. The project is expected to focus on improving market competitiveness for a 5-year period.

7

MAIN FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

The establishment of the Quality Infrastructure (standardization, metrology, accreditation, testing-certification, conformity assessment) constitutes the foundation of reforms in the internal market (UNIDO, 2016), and remains one of the most positive and practical steps that a developing or emerging economy such as Albania can take on the path forward to increase the competitiveness of the primary and secondary sectors, preserve the well-being of smallholders, processors and market operators in the F&V sector, and protect the health of the consumers. Therefore, **there is a need for compliance with increasingly strict legal requirements at the state institutional** level for both categories of products, especially in the EU market. At the same time, there is also an increased **demand by the private sector** for voluntary *standards* and *certifications*, including **marketing standards**. Compliance with increasingly demanding legal and additional requirements is not only necessary to maintain and improve market access, but also serves as a means to attain **higher added value** and/or higher prices.

Overall, there is **limited awareness** and application of food safety and quality standards, and a poor quality culture and awareness – thus, there is a **need to raise awareness about such standards**. This can

be achieved in multiple ways, but the most efficient and sustainable approach is to cooperate closely with value chain leaders and with MARD extension services.

There is a need for a series of interventions in order to support QI improvement. In the past, the focus of the budgetary support has been on the expansion of the cultivated area and the increase of processing capacities, while recently the focus has shifted to ensuring the quality standards related to organic production. Considering the weaknesses identified in the QIS, support should be provided in three main areas: i) establishing a more enabling environment and increasing the institutional capacities of the components of QI, ii) increasing the involvement of F&V value chain operators and their association in QI development and management and, iii) strengthening the development of culture for quality for F&V value chain operators, in parallel with increased know-how for all aspects related to quality and quality infrastructure.

7.1 MAIN FINDINGS, KEY GAPS AND RELEVANT RECOMMENDED ACTIONS

This section groups the analysis of gaps and recommendations into two parts:

i. Gaps, issues and recommendations for improvement related to the improvement of quality standards in the F&V value chain by each VC stakeholder category (table 7.1), and;

ii. Gaps, issues and recommendations for improvement related to the QIS (table 7.2).

The assessment of gaps, issues and recommendations for improvement related to the VC actors is addressed in a separate table, as the analysis of the F&V sector allowed the identification of several issues and relevant opportunities for improvement, not all related to QIS, even if most of the highly relevant ones are actually QI issues;

Also, not all gaps have the same impact on the value chain performance and therefore not all opportunities for improvement have the same priority.

TABLE 7.1: STAKEHOLDERS, GAPS AND NEEDS FOR THE IMPROVEMENT OF QUALITY STANDARDS IN THE F&V VALUE CHAIN

Stakeholders	Issues and gaps related to quality standards	Recommendations to improve quality standards
Small farmers/ primary producers	» GAP are not applied and are scarcely known » Inadequate support from extensive services and difficulties in crop planning » Increasingly strict legal and additional requirements in international markets increase risks and frequency of non-compliance with residuals and contamination » Poor quality of propagation material » Excessive/inappropriate use of PPP » Inappropriate use of fertilizers » Uncontrolled sourcing and use of irrigation water » Scarce knowledge of marketing standards and weak traceability at collector level » Lack of climate change adaptation methods » Few controls on PPP residuals » Little knowledge/ IPM protocols adoption » Small demand for soil and water analyses » Products traceability largely incomplete » Limited demand for laboratory testing	» Increase of NAVPP inspection » Increase level of seed and seedling suppliers formalization » Enforce a workable traceability system, also supporting inscription to TRACES database for large primary producers » Increase controls on PPP residuals (products for domestic market) » Increase participation to certified quality schemes (see also actions to strengthen TIC bodies) » Increase availability and access to private testing facilities » Condition access to state support schemes and IPARD to the establishment of regular water and soil monitoring system/provision of relevant analyses » Raise awareness and know-how to assess and tackle the impact of climate change on quality

Stakeholders	Issues and gaps related to quality standards	Recommendations to improve quality standards
VC operators (consolidators, exporters and processors	» Investment focuses on vertical integration rather than on increasing the size and development of new products/services. » Scarce in-country QI services, low trust in QI services especially for laboratory testing and certification. » Incomplete traceability at farm level. » Scarce cooperation for VC leadership/ coordination. » Sector associative bodies are weak in terms of finance and representation. » Few certified operators for ISO quality or food safety standards or for private standards (BRCGS). » Several cases of products rejected from EU buyers, due to non-compliance with food safety legal requirements (MRL, metals foreign bodies and labelling). » Large quantities of products non-compliant with EU or UNECE marketing standards sold in the domestic market » No controls on MRL contents in raw materials. » Limited use of farming contracts, due to dysfunctional VC coordination. » Lack of controls and certifications prevent export of half-finished products (e.g. gherkins in vinegar in bulk packaging).	» Develop and enforce a workable traceability system for F&V » Provide TA to improve labeling and ensure that traceability system. » Provide technical assistance and increase inspections for GAP application. » Support more equitable production farming contracts, also including the provision of public extension services. » Support the development of post-harvest services, also promoting the use of the IPARD III facility. » Support access to TIC services through incentives and reorganize the risk-based NFA control system with reinforced controls for non-certified subjects and simplified controls for certified ones. » Improve and facilitate access to private testing facilities » Support the harmonisation with EC and UNECE marketing standards. » Support projects for AKIS using the Operational Group

TABLE 7.2: STAKEHOLDERS, GAPS AND NEEDS IN RELATION TO SERVICES PROVIDED TO ENSURE QUALITY FOR THE F&V SECTOR

QI component	Stakeholders	Issues and gaps	Recommendations
Culture for quality	All institutional and private QI stakeholders	» Focus on formal compliance at the moment of inspection/testing rather than on substantial compliance consistent over time. » Low trust of Albanian consumers and foreign importers on Albanian QI, between institutional stakeholders and VC operators, and within stakeholders in each category. » Strong attitude of institutional and private actors to limit coordinated action and communicate/ exchange information.	» Reinforce and coordinate inspection functions. » Improve planning and implementation mode of inspections. » Support the establishment of a wider range of QI services owned by accredited international subjects. » Strengthen GDA and increase its effectiveness. » Fine-tune NQP and involve in the steering committee VC stakeholders and consumer protection organisations.
Regulatory framework and quality policy	Key government Parliament, Council of Ministers, MARD (Agencies, Divisions, Technical committees and commissions) and MFE institutions	» Albanian legislation only partially aligned to EU legal framework on food safety, traceability, CMO organisation, market surveillance » Albania's legislation on accreditation not fully aligned to international best practices » Marketing (quality) standards, as foreseen in common market organization (CMO) not yet adopted » Accreditation of conformity assessment bodies not complete » Good Laboratory Practices (GLP) not widely adopted » Products regulatory framework still largely based on EU 'old approach', especially pre-packaging, bottle measurement » Weak capacities for evidence-based policies and stakeholder inclusion	» Support the NQP coordinating body responsible for the quality infrastructure and harmonising technical regulation activities » Define the roles and responsibilities of each stakeholder in the QI system through the preparation of a national regulatory framework on quality » Provide budgetary support in order to strengthen capacities in QI institutions (e.g. standards, metrology and accreditation) and other components of the QI system (quality promotion, inspection, testing, certification, calibration & verification) » Support the expansion of the legal alignment in the field of QI with focus on implementing legislation, utilizing the EU 'new legislative framework' approach

QI component	Stakeholders	Issues and gaps	Recommendations
Quality infrastructure institutions	Accreditation	» Lack of licensed Global G.A.P. certification bodies » Need to increase trust in/reputation of foreign operators » Limited number and quality of technical assessors for QI services provision (testing, calibration, certification and inspection) » Weak engagement of the sector representatives in the technical working groups (TWG)	» Advocate for increased GDA focus on the targeted VC and support for the increasing capacities in VC-specific areas » GDA capacity building for ISO/IEC 17065 accreditation of Albanian TIC bodies, focused on: i. GACP and GMP audit, inspection and certification (e.g. enabling TIC to be GlobalGAP authorised CB); ii. Food Safety Management Systems based on ISO 22000 family such as FS 22000 standard; iii. ISO/IEC 17025-based accreditation of testing laboratories for VC-specific activities (focus on pesticide and bacteria testing) » Support adoption of rules, processes and competence criteria for the accreditation by European Accreditation Multilateral Agreement (EA and IAF MLAs) and facilitate the participation of GDA lead assessors and technical assessors as observers in assessments performed by an EA MLA accreditation body for accreditation schemes in the F&V sectors » Train a pool of technical assessors with relevant experience to service the F&V sector (testing, calibration, certification and inspection), and mentoring to the point of being declared competent » Increase monitoring of GDA lead assessors and technical assessors in order to increase trust from market operators
	Metrology	» Limited scope of calibration services (mainly thermometers, volume and density) not fully meeting operators needs » Legal base “On Metrology” not aligned with Directive 2009/34/EC and other directives for prepackaged products	» Align the Albanian Law No. 126/2020 “On Metrology” with EU legislation. According to the notes in Law No. 126/2020, the law is only partially aligned with Directive 2009/34/EC of the European Parliament and of the Council, dated April 23, 2009, regarding the common provisions for measuring instruments and metrological control methods, as well as other directives on prepackaged products

QI component	Stakeholders	Issues and gaps	Recommendations
	Metrology		» Update the strategic plan of the GDM (scope of calibration for the VCs) » Support GDM (e.g. test methods) to become accreditation-ready with a focus on chemical laboratories which are of particular relevance for the F&V chains » Conduct simulated EA MLA Peer Assessment with a focus on the specific VCsDetermine the legal metrology and pre-packaging requirements for the relevant VCs » Provide reference materials for the measurement of pesticide residues, bacteria and heavy metal (lead) contamination » Support cooperation with other National Metrology Institutions to support initiatives for F&V
	Standards	» Limited involvement of F&V stakeholders or experts in relevant technical bodies and technical committees » Limited awareness among stakeholders about GDS role/services and limited information on proposed technical regulations. » Need for further legislation alignment with EU framework » Limited enforcement capacity for legislation that has already been adopted (EU Regulation 1025/2012 “On European Standardization” / Decision of the Council of Ministers 382/2018 “On the approval of the Regulation on Standardization Activities”, as amended)	» Capacity building for GDS in order to increase expertise and speed up the legislation alignment » Provide support for capacity building for GDS staff and Technical Committees Chairs & Secretaries on Good Standardisation Practices with a focus on the F&V sector » Assist GDS in establishing a network of contacts among market operators who benefit from the notification procedure, in order to ensure the establishment of a rapid alert system or its equivalent » Support GDS in developing guidelines, manuals, infographics, etc. to raise awareness about standards among relevant regulators » Identify the need for VC-specific Albanian Standards that could be used to improve the quality of local products and potentially serve as a foundation for regional or international standards in the future

QI component	Stakeholders	Issues and gaps	Recommendations
	Standards		» Translate the most relevant CEN, ISO and other standards relevant to the targeted sectors into Albanian language (using digitalization processes, e.g. machine-readable standards) and promote the use of such documentation through platforms and dissemination materials » Involve interested parties from the targeted value chains in the drafting, approval and adoption of Albanian standards and their voluntary implementation as stipulated in the Law on Standardization No. 9870 » Provide training to the GDS and MIE staff with a focus on aligning legislation and implementing legislation that has already been adopted (EU Regulation 1025/2012 "On European Standardization" / Decision of Council of Ministers 382/2018 "On the approval of the Regulation of Standardization Activities", as amended) » Strengthen active participation of sector stakeholders in the Technical Committees for the F&V sector in order to increase their contribution in the drafting, approval and adoption of the standards related to relevant sectors
Quality infrastructure services	Inspection NFA,	» Limited capacities for control at farm level and limited coverage of type of plants checked and sent for control at authorized laboratories system » Limited capacities for custom inspection related to standards control » Risk-based control plan focused on product risk, not VC operator risk » Control of input suppliers mainly based on documentation (not laboratory analysis)	» Apply pilot project for the online inventory control allowing real time food safety management system » Provide capacity building for Border Inspection Posts inspection staff, NFA laboratory staff and inspectors to enhance their capacity to control standards » Provide capacity building for an effective implementation of annual inspection plans based on astute risk assessment methodology

QI component	Stakeholders	Issues and gaps	Recommendations
Quality infrastructure services	Inspection NAVPP	» No clear definition of MRL (maximum residue level) by type of contaminant » Lack of laboratory-based control at farm level for F&V sector (controls are rare and only visual) » Lack of Pharmacovigilance which implies limited oversight of the utilization of Plant Protection Products (PPPs) » Improper institutional division of competencies – input retailers are controlled by NFA, despite its close connection to farmers; control through NAVPP could be more effective » Lack of protocols for the use of PPPs based on the type of plant	» Clearly define and disseminate MRL (maximum residue level) by type of product etc » Further align legislation with the EU acquis on contamination » Define tasks, responsibilities/ competences with regard to inputs retail control » Update monitoring plans at the farm and input retailers level » Disseminate the protocols for the control of contaminants, pesticide residues, plant health in each segment of the VC chain in order to increase trust and awareness » Invest in Phytosanitary Information Systems (PIS) for plant health and plant protection
	Market surveillance	» No coordination between NFA and SIMS » Limited coverage in SIMS tasks and functions for pre-packaged and measurement instruments, especially in testing procedure	» Support the institutional strengthening of NFA and SIMS for pre-packaged and measurement instruments » Support the NFA and SIMS in increasing surveillance based on risk assessment plans
	Testing Laboratory network (FSVI, NFA laboratories, AUT laboratory, 12 Private laboratories)	» High average fixed costs per unit of laboratory services » Poor capacities to provide services for the F&V sector » Lack of trust in Albanian laboratories » Missing accreditation for laboratories » There is no accessible information on the capacities of the laboratories, such as the range of analyses provided, HR qualification, equipment and accreditation » Lack of Laboratory Information Management Systems (LIMS) » Limited capacities for fulfilling the present requirements for testing on chemical contaminants and high costs for each additional accreditation block	» Supporting the strengthening of laboratories for the diagnosis of plant pests and accreditation, quality assurance and control practices, applicable domestic and international standards (new tests requested by Global Gap certification), etc » Support FSVI in order to increase the testing capacities and consolidate its position as a reference laboratory » Need/opportunity to invest in an independent laboratory managed by a foreign certified body to increase the trust of the operators » Raise laboratory awareness on exporters' needs and requirements » Increase trust in laboratory services introducing controlled sampling made by certified subjects

QI component	Stakeholders	Issues and gaps	Recommendations
Quality infrastructure services			» Implement pilot projects with F&V associations and laboratories for large scale analyses » Increase information on laboratories using databases of foreign laboratories (see: https://hub.unido.org/labnet) » Support NFA in the establishment of LIMS
	Certification and control Foreign certification bodies	» Lack of Albanian accredited TICs. In particular, no national subjects are accredited to become CBs for GlobalGAP and FS22000. Using only subjects accredited abroad raises the cost of services » Scarce human capacities for the provision of audit, inspection and certification services	» Increase awareness on the need of certification » Support GDA to expand its accreditation capacities
Quality promotion	Quality education and awareness-raising institutions ANES, ATTCs, AUT, UFN, vocational schools	» There is no unique window of information in terms of exporting procedures and required market standards for Albanian exporters and export-oriented VC operators » AIDA export guide is limited to market practices » AKIS system is not formalized and suffers high segmentation » Overload of ANES with different tasks » Limited interrelation between ANES and the academia » ATTC activity, although promoting GAP, is not focused on the establishment of QIS » Poor engagement of universities in conducting applied research for QIS components	» Increase awareness on standards and protocols required for exporting a certain product by type of destination market » Support the establishment of an effective and efficient AKIS which can better disseminate information and raise awareness on QIS » Increase capacities and cooperation between academia, ATTC and ANES » Establish operational groups to address quality problems building on the EU EIP AGRI example » Strengthen academic capacities for applied research (e.g. PAs control), promote quality and provide testing services » Promote culture for quality: among businesses through business associations and ii. Other stakeholders; ii) among consumers through media

QI component	Stakeholders	Issues and gaps	Recommendations
Quality promotion	Sector associations	» Scarce cooperation and poor financial support for the business associations. » Weak representation in policy making and regulatory bodies, with limited impact in terms of regulatory framework. » Poor capacity to effectively promote and advocate for strengthening accountability to ensure culture for quality towards members and external stakeholders » Need for full alignment of EU marketing standards (Common Market Organization, "secondary CMO legislation" and "Breakfast Directives"). » Weak or almost non-existent traceability systems or record-keeping tools calibrated to enable the identification of specific products at any specified stage of the food chain (from production to distribution), including the provenance of the food (one step back) and its destination (one step forward).	» Advocate for the definition of the market standards (Regulation (EU) no. 1308/2013 and repeal of Council Regulations (EEC) no. 922/72, (EEC) No. 234/79, (EC) no. 1037/2001 and (EC) no. 1234/2007. » Introduce digitalisation and other practices in order to increase traceability capacities. » Support the collaboration of Associations with the Quality Infrastructure Institutions and Inspecting bodies » Apply pilot projects for close cooperation between Associations and Laboratories. » Promote culture for quality for consumers. » Implementation of projects on consumer rights protection; » Implementation of independent market surveillance activities.

7.2 RECOMMENDATIONS

Based on the assessment of gaps and needs for sector development and QIS improvement, as synoptically presented in **tables 7.1** and **7.2**, *the actions with higher priority have been identified and described.*

All the actions described in this chapter are considered as having high priority in relation to QIS and F&V sector development. Each recommended action is also classified into one of three categories:

1. *Establishing a better enabling environment* (i.e. related to policies, legal and regulatory framework) and increasing the institutional capacities of the QI components.
2. *Increasing the involvement of F&V value chain operators* and their associations in QI development and management.
3. *Strengthening culture for quality among F&V value chain operators*, in parallel with increased know-how on all aspects related to quality and quality infrastructure (i.e. implementing a pilot action or action programme limited in scope, time and resources, in collaboration with several individual VC stakeholders or QIS stakeholders).

In addition to the above, there is a major issue related to the effectiveness of inspection activities and coordination between agencies involved in inspection activities at different stages of the value chain, i.e. NAVPP (primary production level), NFA (input, post-production, some aspects of distribution) and SIMS (market surveillance). The legal framework governing the functions and activities of these agencies is continuously evolving and each of these agencies is subject to a specific international support package, which already creates problems related to action coordination and potential overlapping. As a consequence of the above, no priority actions for UNIDO support are recommended with reference to these three agencies, even if the issues of inspection targeting and effectiveness, improved coordination of agencies and better delimitation of agencies' responsibilities are important factors for QI improvement.

7.2.1 Selected recommended action to establish a better enabling environment

ACTION 1: SUPPORT THE FORMALIZATION OF A NATIONAL QUALITY POLICY
Justification: The National Quality Policy (NQP) serves as the fundamental governmental instrument for establishing and supervising the QIS. Some NQP components are included in the drafted "Intersectoral Strategy for Consumer Protection and Market Supervision (ISCPMS) 2023 – 2030", which is a strategic document tackling quality issues, but fails to cover all the elements included in a NQP. A coordinating body could act as a technical secretariat to draw and support the implementation of the NQP, should it be formalized. Without a coherent NQP and technical coordination body for implementation, the actions to improve the QIS and to adapt the existing regulatory and legal framework would lack coordination or harmonization and would be more difficult to design and implement.
Recommendation: i) Support the establishment of a QIS coordination committee, with the task to design, update and facilitate implementation of the NQP, acting also as a technical support unit to update the legal and regulatory framework; for this purpose, technical assistance and training should be provided, also using twinning tools with similar bodies in EU member states ii) Provide technical assistance for a coherent, fine-tuned NQP.
Expected Outcomes: i) A formalized NPQ is in place; ii) a coordination committee, with the function of a technical secretariat for NPQ updating and implementation, is established and running.
Actors/stakeholders: The Council of Ministers; Ministry of Finance and Economy, Ministry for Europe and Foreign Affairs (legal acts and alignment), all QIS institutional actors.

ACTION 2: INTRODUCE THE F&V MARKETING STANDARDS AS PART OF A COMMON MARKET ORGANIZATION (CMO).

Justification: Law 9683/2008 ("On food") was drafted in accordance with the "New Legislative Framework" approach; as such, it requires secondary legislation for defining marketing standards; this secondary legislation has not been introduced, except for some by-laws on a few animal products.

One important gap identified in the F&V sector is the lack of alignment of EU marketing standards (Common Market Organization, "secondary CMO legislation" and "Breakfast Directives"). The current legal base is still lacking the definition of the market standards (Regulation (EU) no. 1308/2013 and repeal of Council Regulations (EEC) no. 922/72, (EEC) No. 234/79, (EC) no. 1037/2001 and (EC) no. 1234/2007.

This gap in the legal framework has a number of consequences, as knowledge on the standards of each fruit and vegetable product is scarce and the absence of specific rules has led to some complacency among producers, who are aware that whatever products cannot be sold in international markets, are allowed for sale in the domestic market, regardless of non-compliance with quality standards in terms of size, skin damages or other defects. In a broader context, the absence of legally established marketing standards is impeding the adoption of suitable agronomic practices, particularly in the field of fruit cultivation.

Lack of these standards reduces the capacities of market operators to access high-value markets. In addition, it renders them reliant on brokers and buyers for accessing new markets. In addition, the scarce know-how on marketing standards also creates gaps in complying with labeling requirements.

Recommendation: The MARD and MOFE should cooperate in order to

1. Introduce secondary legislation aligned with Implementing Reg. (EU) 543/2011 for the products specified in this regulation and adopt UNECE standards (also with secondary legislation) for all other products. Define the marketing standards (art. 3 Reg. 543/2011) for Part A "General marketing standards" and Part B "Specific marketing standards" (as required for tomatoes, peppers and strawberries)
2. Regulate the definition of the market standards (Regulation (EU) no. 1308/2013 and repeal of Council Regulations (EEC) no. 922/72, (EEC) No. 234/79, (EC) no. 1037/2001 and (EC) no. 1234/2007.
3. Establish technical groups for defining the quality class (Extra, Class I and Class II) and size as required by the regulation (Reg. (EC) 543/2011); the UNECE standards are applicable[45].

In addition, the AIDA and F&V Associations should promote the use of labelling specificities by products (EC, 2023e) especially for i. *tomatoes, peppers, strawberries, and in general for the 10 products regulated by Reg. 543/2011 packed in open boxes ii. for fresh fruits and vegetables pre-packaged in sealed retail packaging and iii.* pre-packaged products in sealed packaging for final consumption, in accordance with Reg.1169/2011;

Expected Outcome: The definition of the standards will enable F&V market operators to access better markets and access ultimate consumers by selling directly to supermarket chains without the need for brokering services. The fulfilment of marketing standards (art. 3 Reg. 543/2011) will provide better opportunities for melon and watermelon, cucumbers and gherkins (due to fulfilled requirements related to Part A "General marketing standard") and for tomatoes, peppers and strawberries (due to fulfilled requirements for Part B "Specific marketing standards"). The sector will also benefit from improved labelling, which ensures direct sales to ultimate tiers of the foreign markets (e.g. supermarket chains and food preparation chains)

Actors/stakeholders: MARD, MFE, GDS, SIMS, Farmers associations, Consumer protection groups.

[45] Article 15 of Reg. (EU) 543/2011 stipulates "should be those as set out in the standards adopted by the United Nations Economic Commission for Europe (UNECE). Where no specific marketing standard has been adopted at Union level, products should be considered as conforming to the general marketing standard where the holder is able to show that the products are in conformity with any applicable UNECE standard"

7.2.2 Selected recommended action to increase institutional capacities of QI components

ACTION 1: GDA AND TIC CAPACITY BUILDING, FOCUSED ON LABORATORY TESTING SERVICE PROVIDERS AND CERTIFICATION BODIES
Justification: Two important QI identified gaps are: i) the limited range and quality of testing services available in Albania and, ii) the limited number of certification bodies operating in Albania and the fact that those recognized abroad are mostly branches of operators accredited in other countries. There are no locally accredited Albanian certification/TIC bodies for some types of certifications (e.g. GlobalGAP). GDA has not yet developed the capacity to accredit internationally recognized certWification bodies / TIC for selected certifications and should improve its capacity to audit, accredit and control public and private laboratories, helping them to provide an increasing range of certified testing services. This is relevant for both public and private laboratories, including FSVI, laboratories and the few private ones. Laboratories should be accredited as infrastructure and certified with ISO/IEC 17025. Private laboratories need to expand the number of accredited tests. TIC bodies should be able to provide auditing, inspection and certification services. In order to have their certifications recognized abroad, they should be accredited and certified themselves with ISO/IEC 17065. The lack of locally accredited operators increases the cost/prices of services and reduces monitoring.
Recommendation: GDA capacity building focusing on Albanian TIC bodies and testing entities; capacity building should primarily include technical assistance and training; twinning initiatives with EU member states' equivalent bodies could be also promoted.
Expected Outcome: GDA acquires the capacity to: i) accredit Albanian TIC bodies and support them in ISO/IEC 17065 certification process; ii) increase the number of accredited and certified testing facilities, as well as the number of accredited FSVI testing services.
Actors/stakeholders: GDA, FSVI, Private laboratories, Albanian TIC bodies.

ACTION 2: PROVIDE GDS CAPACITY BUILDING FOR IMPROVING SERVICES PROVIDED TO F&V SECTOR
Justification: GDS has adopted several standards for plants regarding chemical determinations, analyses, and test methods, working in collaboration with the relevant Technical Committee. However, there is limited awareness from F&V operators on the scale and importance of GDS services. The GDS Technical committee does not include stakeholders/experts from the F&V sector. GDS competences and capacities are yet to be developed. GDS capacity to enforce the already adopted EU regulations is limited (EU Regulation 1025/2012 "On European Standardization" / Decision of Council of Ministers 382/2018 "On the approval of the Regulation of Standardization Activities", as amended) , which is diminishing its authority in regulating the standards in the Albanian markets. The institution has yet to follow the Good Standardisation Practices in order to better serve to the F&V value chain.
Recommendation: Support GDS in increasing the engagement of stakeholders from the F&V sector in the Technical committee in order to allow F&V operators to take ownership in the process of drafting, approval and adoption of Albanian standards; Provide support for capacity building in terms of observing the Good Standardisation Practices for the F&V sector; Train the GDS staff focusing on legislation alignment and on implementation of legislation already adopted (EU Regulation 1025/2012 "On European Standardization" / Decision of Council of Ministers 382/2018 "On the approval of the Regulation of Standardization Activities", as amended). Provide support for GDS in order to increase the presence of and trust in F&V stakeholders by preparing translated versions of relevant CEN, ISO and other standards relevant to the F&V sector (based on digitalization processes e.g. machine-readable standards) as well as preparing guidelines, manuals, infographics for F&V market operators.
Expected Outcome: GDS acquires the capacity to: i) translate and inform F&V operators on the current standards used in the production and processing of F&V products; ii) increase the number of stakeholders involved in the technical committees, iii) consolidate its role in ensuring standards used in the F&V sectors.
Actors/stakeholders: GDS, F&V associations and market operators.

ACTION 3: PROVIDE GDM CAPACITY BUILDING FOR IMPROVING SERVICES PROVIDED TO F&V SECTOR

Justification: GDM has been undergoing a series of reforms and improving its legal base and institutional capacities. However, GDM has a limited scope of services relevant to the food and beverages sector, and its legal base is only partially aligned with EU regulations. For instance, the legal base "On Metrology" is not aligned with Directive 2009/34/EC and other directives on pre-packaged products. GDM is yet not accredited according to ISO/IEC 17043 "General requirements for the competence of proficiency testing providers". It also has to uphold compliance with the requirements of ISO/IEC 17025 for competence in laboratories.

Recommendation: There is a need to support GDM in updating the strategic plan (scope of calibration for the VCs). The GDM capacities to inform the market operators on metrology legislation has to increase, especially on legal requirements related to F&V sector in key markets, with a focus on the measurement of pesticide residues, bacteria and metal (lead) contamination.

In terms of legal updates, there is a need to assist GDM in preparing the legal metrology and pre-packaging requirements for the needs of the F&V sector. In addition, GDM should be supported in fully aligning the Albanian Law No. 126/2020 "On Metrology" with EU legislation Directive 2009/34/EC;

In terms of capacity-building, there is a need to improve GDM accreditation. The GDM needs should be supported in developing testing methods in order to become ISO/IEC 17025 accreditation-ready, focusing on laboratories measures that hold significance for the F&V value chain. In addition, the institution needs support in order to update its accreditation for ISO/IEC 17043 "General requirements for the competence of proficiency testing providers". In order to better cater to the needs of F&V market, GDM should be assisted in terms of internationalization and cooperation with other National Metrology Institutions. The cooperation should lie on mutual initiatives for F&V services, such as preparing and conducting simulated EA MLA Peer Assessment;

Expected Outcome: GDM acquires the capacity to: i) increase awareness on legal requirements for the MAP operators and further develop the legal metrology on pre-packaging requirements for F&V needs; ii) expand the types of services related to F&V measurement needs, iii) consolidate its role in ensuring measures related to F&V sector needs, including here ISO/IEC 17025 and ISO/IEC 17043.

Actors/stakeholders: GDM, F&V associations and market operators.

ACTION 4: SUPPORT INCREASE AND IMPROVEMENT OF LABORATORY TESTING SERVICES

Justification: Testing capacities in Albania fall short of the needs, due to the inadequate number and accessibility of certified laboratories, a limited range of accredited tests/analyses, high service costs and a poor reputation. The issue is also related to the need for certified intermediaries in charge of taking the samples to be analysed, as there are several reports on issues related to the non-conformity of sampling.

Not all major stakeholders in the value chain possess in-house (mini)laboratories, and among those who do, there are deficiencies in terms of equipment and human resource capacities.

GDA capacity building (see above) contributes to create the conditions to increase and improve testing services for F&V; however, a parallel action is required to expand public and private testing services (more certified services, more laboratories, increased control on certified laboratories).

AUT and ATTC reference labs (e.g. for F&V in ATTC Shkoder and soil in ATTC Fushe-Kruje) have deficiencies in terms of the types of analyses and tests they conduct, which can be upgraded through support.

The accessible financial sources required for this expansion of services should be thoroughly assessed, as there is a complex mix of private, public and international funds that can be used.

Recommendation: Encourage, stimulate and support the expansion of public and private testing services (more certified services, more laboratories, increased control on certified laboratories); support the installation of mini-laboratories in the largest F&V processing enterprises and support those with existing laboratories to enhance the laboratory equipment and human resources capacities.

AUT and ATTC reference labs (e.g. for F&V in ATTC Shkoder and soil in ATTC Fushe-Kruje) can be supported to enhance their capacities and improve their services to farmers in cooperation with ANES/extension services.

The expansion of testing facilities should be based on a specific action plan, which will identify the needs, the investment absorption capacity in terms of demand and the availability of human, technical and financial resources. A specific analysis of the financial facilities that can be used to expand the testing resources for public laboratories (e.g. national budget, EU/IPA, international development banks loans, bilateral international cooperation) and private ones (e.g. IPARD III for F&V farmers pand rocessors and soft credit lines supported by bilateral cooperation and international development banks)

Expected Outcome: The range of certified testing services provided by public and private laboratories is extended to cover the majority of sector's needs and the needs of public inspection agencies; the largest F&V processors/exporters establish mini laboratories for quick test and daily needs.

Actors/stakeholders: GDA, FSVI, NFA, ATTC laboratories, private independent laboratories, main F&V processors/exporters

7.2.3 Selected recommended action to enable the involvement of F&V value chain operators and their associations in QI development and management

ACTION: PROMOTE AND SUPPORT GAP APPLICATION; DEVELOP AND INTRODUCE NEW PROTOCOLS TO COPE WITH EMERGING CHALLENGES IN F&V PRODUCTION

Justification: F&V GAP are not sufficiently known among farmers and are seldom applied[46]. Most common issues include: i) non application of IPM practices, with excessive and improper use of PPP; ii) non-adaptation of agronomic practices to available soil and water; soil and water are seldom tested before cultivation, resulting in several problems such as loss of soil fertility or excessive use of fertilizers, soil and water pollution, low yields etc.; iii) irregular application of tilling practices and pruning in fruit production, with a negative impact on the quality of products and yields; iv) use of low quality propagation material, which also affects the supply of qualitative propagation material, the production of which is scarcely profitable. Much of the qualitative propagation material should be imported. v. High vulnerability to climate change due to poor awareness and knowledge on production technologies is creating risks of non-compliance in terms of volumes and quality/standards, which are both highly important for the competitiveness of export-oriented F&V.

Recommendation: i) Make available and disseminate simple and graphically clear versions of GAP, possibly presenting them in agile formats; ii) Organise extension service and field training campaigns in cooperation with ATTCs and specialized universities (AUT and FN of Korça); these campaigns should include a ToT component (capacity building and regular updating) and dissemination/extension campaigns; iii) support the establishment of TIC bodies licensed to issue GAP-related certifications (e.g. GobalG.A.P. IFA v6, LCG BRCGS).

In order to cope with climate change, there is a need to implement a synchronized approach combining i. grant investments[47] toward climate change adaptation, ii. A capacity-building and extension programming component in order to develop clear adaptation approaches iii. revise current regionalisation policy in order to assess spatial shifts or displacement of some crop types to higher elevations iv. Collect information using systemtaitc statistical activities and spatial estimations.

Expected Outcomes: i) Increased awareness and adoption of GAP among F&V growers ii) increased share of certified F&V products. iii. Increased capacity to cope with climate change and to address climate change associated risks.

Actors/stakeholders: ANES, ATTC, AUT and research institutes providing know-how and training contents on GAP and climate change; KASH and sector association used as intermediaries for dissemination of documentation and organization of training/advisory activities; F&V growers, propagation material producers and private advisors attached to input dealers as beneficiaries, but also involved in establishing suitable training modules.

[46] No companies certified GlobalG.A.P. (IFA v6 or other standards) were identified in the survey; a eq are certified BRCGS, which implies the application of GAP.

[47] Main areas of focus are: 1. Application of modern precision irrigation techniques and use of new fertigation techniques ii. Implementation of new methods of conservation agriculture is required to reduce soil disturbance to an absolute minimum by reducing or eliminating topsoil tilling, maintaining a constant soil cover (e.g., by mulching), and diversifying crop rotations. iii. Testing of nature-based solutions, forestation and afforestation techniques iv. Testing and substitution of current varieties with market demanded varieties which are less vulnerable to heat and drought.

7.2.4 Selected recommended action to strengthen the development of culture for quality for F&V value chain operators

ACTION 1: IMPROVING THE CULTURE FOR QUALITY ENVIRONMENT

Justification: The primary cause of the majority of issues in the growth of the F&V sector, as well as QIS flaws, is a lack of trust across stakeholder categories and between individuals within the same stakeholder category. Most institutional and non-institutional stakeholders focus on formal compliance (documentary compliance, compliance at the point of control) rather than substantive compliance over time, since there is insufficient culture for quality. Moreover, many stakeholders sincerely believe that the culture for quality of the other stakeholders (institutional and non-institutional) is minimal, with the ultimate result that there is no trust in the professionalism and independence of institutional and non-institutional QI service providers; more in general, good personal relations are often considered a better way to achieve good results than any application of standards or certification or other documentary confirmation of compliance or quality.

Another consequence is scarce cooperation between institutions, weak role of sector associations and limited cooperation between institutions and economic actors, with an overall low level of mutual trust.

Knowing this, many importers also do not trust the documentation provided by Albanian exporters and are often repeating tests and analyses or require such tests to be carried out in their country. This position is sometimes instrumental, as Albanian exporters have no real control on the testing process (e.g. the way in which samples are taken); the final result is that there is a relatively high number of non-compliance and/or poor quality claims, resulting in prices lower than average being paid to exporters.

Recommendation: Establish a more positive working environment, build trust among stakeholders through a shared culture for quality achieved through communication, awareness and training. Organise awareness and information campaigns to inform and update value chain operators on: i) EU rules for PPP trade, distribution and use (EC, 2009), which will also be adopted in Albania and, ii) on the use of EU "pesticide database" (EC, 2023h), which provides up-to-date information on MRL, active substances used in PPP and MRL for each food category; n general, exporters should have a good and updated knowledge of Reg. (EC) 1107/2009.

Awareness and technical training (ranging from field demonstrations to workshops to side events in conventions and fairs) should be primarily addressed to the upstream part of the supply chain operators, while the downstream, larger operators should develop increased consciousness on the fact that there is no alternative to increase collective actions and specialization for the growth of the sector and to develop a more in-depth knowledge about specific aspects to QI that require collective actions and qualified service providers.

Expected Outcomes: A more cooperative working environment would achieve the following objectives:

Shift focus from formal to substantial and consistent compliance by establishing a code of conduct on quality with the support of F&V associations.

Streamline and facilitate relations between stakeholders, especially between testing, inspecting and certification stakeholders (institutional and non-institutional) and supply chain stakeholders.

Facilitate collective actions (e.g. the establishment of independent service providers), and value chain coordination (e.g. upturning decline of contract farming between processors and small growers).

Increase the role of ending segments of the value chain in promoting the vectors of quality and reliability of supply. Awareness-raising activities for consumers and business operators should be supported in cooperation with managing bodies of market outlets and supermarkets.

Better cooperation among QI institutional actors, e.g. between NAVPP and NFA on agricultural input controls or between GDA, FSVI, NFA and private testing facilities.

Improving and streamlining the legal framework is necessary to improve QIS, but a sincere attitude to cooperation can provide a major contribution to QIs increase.

Actors/stakeholders: Culture for quality is a holistic concept. It is therefore important to involve all stakeholders in this process and utilise different tools for different stakeholders groups, such as farmers and local consolidators/wholesalers; regular workshops/operational meetings should be organized to help institutional and non-institutional QIS stakeholders to trust in their potential to act as part of a single tool for quality.

ACTION 2: SUPPORT TRACEABILITY BY INTRODUCING ICT TOOLS AND ASSIST FARMERS AND AGGREGATORS IN ENSURING TRACEABILITY

Justification: Weak or almost non-existent traceability systems or record-keeping tools calibrated to enable the identification of specific products at any specified stage of the food chain (from production to distribution), including the provenance of the food (one step back) and its destination (one step forward)

Traceability is very important for the protection of consumers, especially when food is found to be faulty. To ensure traceability:

» Food businesses need a comprehensive system of traceability so that information can be easily accessed and targeted withdrawals can happen, if needed, without wider disruption of the systemFood businesses, including importers, must be able to identify at least the immediate supplier of a product or lot of products and the immediate subsequent consignee (one step back - one step forward principle). Records must be kept showing the correspondence between the exported lot and the sources of the supply (companies or individuals) of the products included in that lot

» Traceability is also embedded in labels, which must provide adequate traceability information, including the lot and origin

» As part of the administrative documentation required for imported products, a "proof of origin" (a certificate released by the Chamber of Commerce) must be provided. This document serves the purpose of custom and rules of origin implementation, and it also contributes to traceability

Recommendation: Encourage, stimulate and support the use of pilot projects aimed at ensuring that business operators document the names and addresses of the supplier and customer in each case, as well as the nature of the product and date of delivery. A system of inventory should be designed for greenhouse producers, to help them record information on the volume or quantity of a product, the batch number if there is one, and a more detailed description of the product, such as whether it is raw or processed. A private ICT service supplier will be contracted in order to establish a traceability information system through the use of optical codes (barcodes or QR codes). F&V associations will enable the promotion of best practices to non-beneficiaries of the product

Expected Outcome: The traceability will be developed for specific groups (exporters, aggregators and farmers). The experience will be transferred to other producers and exporters via the ATTC Lushnja and ANES service work

Actors/stakeholders: NFA, NAVPP, ATTC Lushnje, ANES, ICT service provider, main F&V processors/exporters and F&V Associations

ACTION 3: ADAPT AND IMPROVE THE SYSTEM OF INCENTIVES AND CONTROLS TO IMPROVE QUALITY ALONG THE VALUE CHAIN

Justification: Culture for quality, adoption of measures for quality improvement and effectiveness of inspection activities would be considerable improved through the revision of the system of incentives and disincentives

Criteria to access to IPARD III Measures, components of some Measures and National Support Schemes should include elements related to QI. In particular:

» The scoring criteria to access to IPARD III Measures 1 and 3 are Criteria are not related to the adoption of quality certification schemes

» The share of IPARD III agro-environmental measures devoted to organic production is very high; however, there are relatively few funds for agro-environmental measures; the distribution of total IPARD III funds among different measures is no longer negotiable until 2027. However, the adoption of organic production/certification schemes can still be introduced in the scoring system for IPARD III Measures 1 and 3

» The adoption of a full-fledged traceability system is not included in the preferential criteria for access to IPARD III or National Support Schemes

» The adoption of certification schemes as a criterion for risk assessment in NAVPP and NFA inspection planning is not included. Risk-based control plans are presently related to the activity (e.g. milk production is considered inherently more risky than vegetable growing), rather to the specific food enterprise

Recommendation: Embed eligibility and scoring criteria to access to IPARD III Measures and National Support Schemes incentives to promote Culture for quality, QI reliability and QIS

Expected Outcome: Traceability along the VC is increased; the use of QIS and the adoption of certification schemes is substantially increased

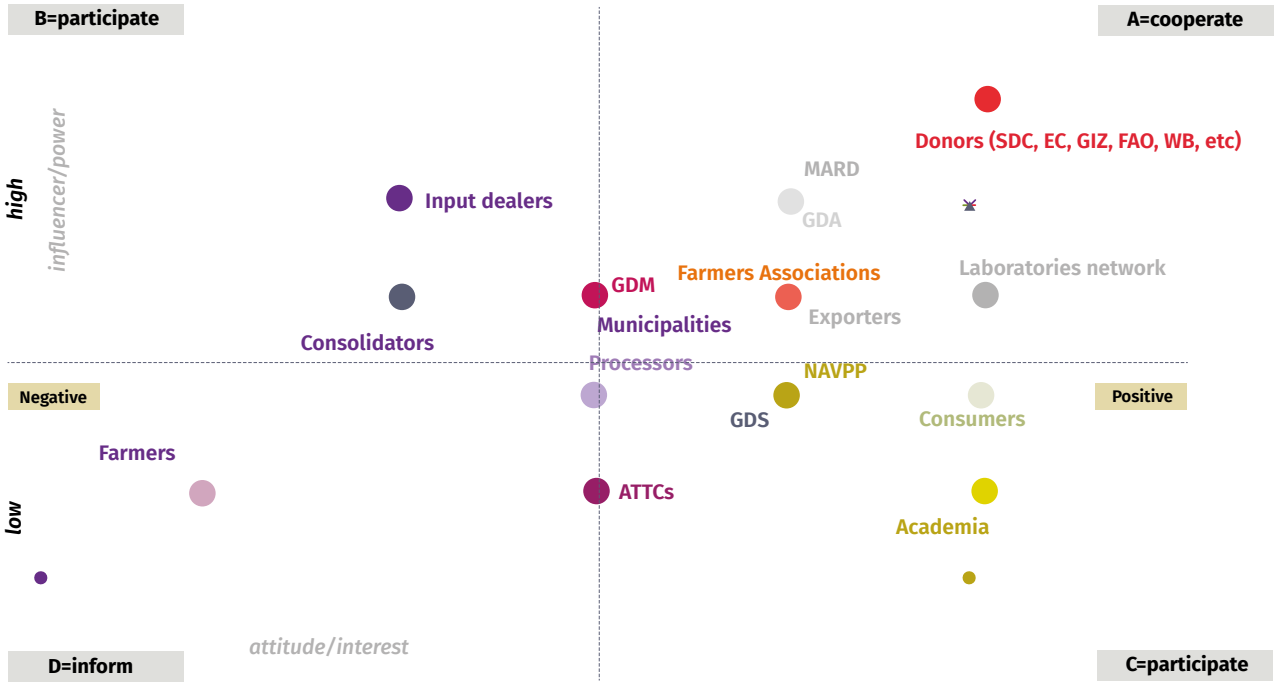
Actors/stakeholders: MARD, ARDA, NFA, NAVPP, TIC, main F&V processors/exporters and F&V Associations

7.3 DEVELOPING A PARTNERSHIP STRATEGY FOR QI IMPROVEMENT

Based on stakeholder analysis, a partnership strategy should be developed to promote compliance with quality standards.

Figure 7.1 below displays the main partners in terms of influence and closeness to the project. That is based on two dimensions: the vertical axis represents power/influence whereas the horizontal axis represents closeness. According to the diagram donors, MARD and MFE are the leading stakeholders. TIC institutions together with QIS institutions are the main institutions to be supported in the first phase. As part of the value chain, the F&V consolidators and exporters are the most interested and influential stakeholders in bringing forward the QI improvement process. Their influence can be coordinated through the VC associations.

FIGURE 7.1: STAKEHOLDER ATTITUDE AND POWER IN ORIENTATION TOWARD Q



Source: Own elaboration

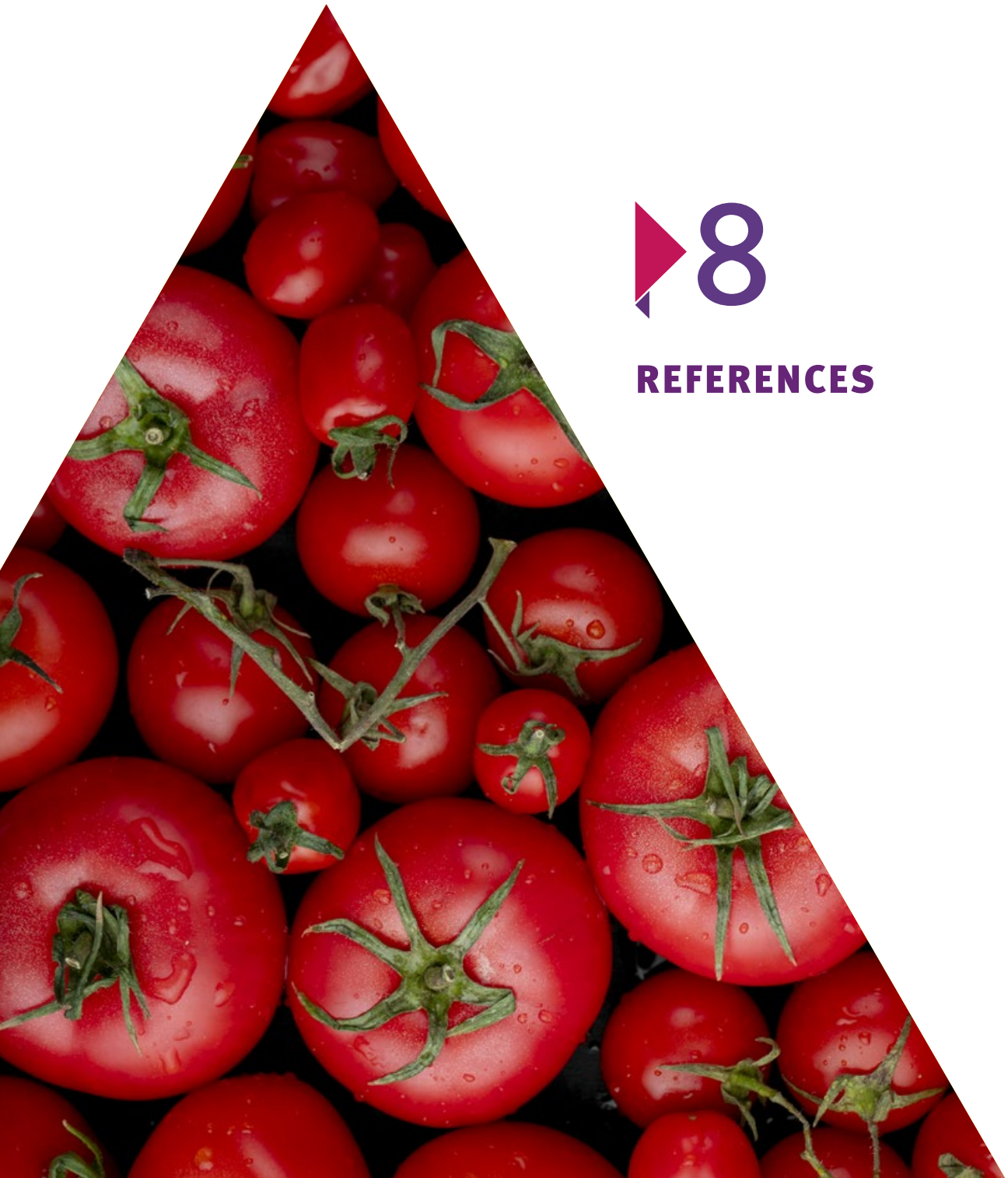
Table 7.4 below shows the partnership actions required for each of the stakeholders according to their power and distance.

TABLE 7.3. PARTNERS AND PARTNERSHIP ACTIONS OF THE STAKEHOLDERS WITH REGARD TO THEIR EFFORTS FOR AN IMPROVED QIS IN ALBANIA

Institution	Partnership action to improve QIS in Albania
MARD, MoFE	Support MARD in inception design, monitoring and evaluation of quality policy framework and alignment
NFA	Support for increasing awareness and monitoring
Laboratories	Partnership with IFSV and support one national accredited laboratory for increasing human capacities and become accredited for tests required by the targeted VCs
NAVPP	Support for designing terms of work and increasing inspection capacities at input suppliers and farm level
Donors	Create stable partnerships and increase pool funding for capacity building
GDA	Support for legal alignment and increase of capacities for orienting services toward the F&V market operators
GDM	Partnership for capacity building and awareness and orienting services toward the targeted F&V
GDS	Support for legal alignment, translation of standards and increase of capacities for orienting services toward the F&V sector
QIS services	Inform, consult and establish partnerships with certification bodies. Partnership with input providers (agrochemicals providers), marketing and traceability providers
Business associations	Partnership for the implementation of activities for the capacity building and awareness raising-Pilot project for cooperation with laboratories. Additional cooperation for increasing quality awareness and strengthening culture for quality
Operators	Consult and inform and involve them in operational groups
Academia	Specific applied research, especially on pest control and seeds quality
ANES	Establish EIP AGRI operational group for overcoming certain issues related to quality and increasing innovation toward quality assurance
Media	Inform media and organise awareness-raising campaigns for raising consumers awareness
Supermarkets	Cooperate in the implementation of projects for the improvement of traceability

Source: Own elaboration

The interventions should aim at improving the culture for quality environment among all nodes of the value chain and consumers. The approach should follow a step-wise process by giving priority to actions according to the time required for the implementation. Actions should aim to enhance capacities to improve QIs but also indirectly influence the achievement of cross-cutting goals, namely gender-balanced inclusion and empowerment. Gender wise, a series of measures are necessary for promoting equitable participation and influence by women and men in quality improvement processes and achieving equitable access to financial resources and other benefits resulting from investments in quality assurance. For both value chains training on entrepreneurship, financial literacy and quality control should be provided to both women and men in farms, groups of farmers and processing units. Capacity building interventions should consider the constraints hampering women efforts on participating to capacity building events such as training and field demonstration. Therefore, to address the challenges faced by both women and men in accessing capital, it is crucial to provide support through technology packages (protocols, demonstration equipment, laboratory kits for land and water analyses), assistance with transport costs and access to advisory services and group coaching. More insight is needed about gender empowerment in conjunction to QI, based on which, recommendations specifically tailored to gender and QI can be provided.



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ANNEX. MAIN STANDARDS ADOPTED IN F&V AND MAPS IN THE WESTERN BALKANS AND RELEVANT CONTENTS

A1. BACKGROUND

As part of the sector analyses, a field survey has been carried out primarily among F&V processing companies, traders and service providers.

GlobalG.A.P certification is not common, even if it is considered almost a must for F&V export in EU member states.

In the *quality management* area, 10% of the sample is certified in accordance with ISO 9000.

In the *food safety* area, 28% of value chain operators are HACCP certified. HACCP is not a standard, but a management technique, based on principles and control points, which is *mandatory for compliance* under most legal frameworks (including the Albanian one), but whose *certification for compliance is not mandatory.* HACCP compliance is a component of ISO 22000 standard and FSSC 22000 private standard, so those companies which adopt these two certifications are also HACCP compliant.

In the surveyed sample, there are no value chain operators certified in accordance with ISO 22000 (food safety), but 6% of the total is certified in accordance with FSSC 22000, a private standard based on ISO 22000.

The most common standard adopted for value chain management, including food safety, is the private standard BRCGS (10% of the sample).

All other standards are adopted only by a few operators; in particular, the adoption of private VSS standards is very low, while no operators of the sample possess an ISO certification related to sustainable production methods (use of energy, social sustainability, environmental management, sustainable use of natural resources, fair trade etc.).

This annex is divided into **three** parts:

1. Analysis of ISO standards most commonly adopted in F&V value chains.
2. Analysis of private standards adopted by F&V value chain operators in Albania.
3. Review of main private standards adopted by F&V value chain operators in Western Balkan countries, by standard focus (value chain stage, mixed, voluntary sustainability standards – VSS, standards based on cultural values).

For the purposes of this document, the nomenclature and classification used in the International Classification of Standards, Level 1 (fields) has been considered but is not strictly applied, as the purpose of this document is to separately analyse ISO standards from private ones (regardless of their content) and VSS standards from standards related to food quality and safety, as well as the latter from value chain of enterprise management standards.

A2. MOST ADOPTED ISO STANDARDS FOR THE PROCESSING SECTORS IN ALBANIA AND WB COUNTRIES

A2.1 ISO 9000 standards family

The ISO 9000 family is a set of five standards for quality management systems in all sectors. The five standards cover all aspects of the system, from conceptual definition and vocabulary (ISO 9000), to the guidelines to be used by TICs to audit the management systems (ISO 19011)

Out of the five standards, the most relevant for certified implementation by value chain operators is *ISO 9001:15 "Quality system – Requirements"*, which serves as a reference point, recognized worldwide, for the certification of the quality management system of businesses of all sectors and of all sizes.

ISO 9001 specifies the requirements against which your quality management system can be certified by an external body. The standard recognizes that the term "products and services" applies to services, processed materials, hardware and software intended for your customer.

There are seven clauses in the standard, specifying activities to be considered when implementing the quality system, namely: i) Context of the organization, ii) Leadership, iii) Planning, iv) Support, v) Operation, vi) Performance evaluation, vii) Improvement.

The standard refers to the management of the company as a whole (i.e. not to a single product/service or products/services portfolio) and is process-wise, meaning that it refers to one or more linked activities that require resources and should be managed to achieve a pre-determined output, which may directly constitute the input to the next process.

As part of the implementation and certification of the standard, a manual or other documented information should be prepared to demonstrate the company's compliance with the ISO 9001 requirements.

Closely connected to ISO 9001-15, there is another standard of the ISO 9000 family, i.e. the standard *ISO 9004 "Managing for the sustained success of an organization"*, which extends the ISO 9001-15 applications to all partners of the certified enterprise.

A2.2 ISO 22000 standards family

The ISO 2200 family is a set of seven standards or groups of standards for food safety management:

1. *ISO 22000:2018 "Food safety management system – Requirements"*;
2. *ISO 22001 "Guidelines on the application of ISO 9001:2000 for the food and drink industry"*[48];
3. *ISO/TS 22002:2009 "Prerequisite programmes on food safety",* divided into 6 parts: Part 1: Food manufacturing; Part 2: Catering; Part 3: Farming; Part 4: Food packaging manufacturing; Part 5: Transport and storage; Part 6: Feed and animal food production.
4. ISO 22003:2007 – "Requirements for bodies providing audit and certification of food safety management systems";
5. *ISO TS 22004:2005 "Guidance on the application of ISO 22000";*
6. *ISO 22005 "Traceability in the feed and food chain"* General principles and basic requirements for system design and implementation;
7. *ISO 22006 – Quality management systems – Guidance on the application of ISO 9002:2000 for crop production;*

The most relevant standards for the enterprises covered by this study are ISO 22000:2018 and certain parts of ISO 22002:2009.

The ISO 22000:2018 standard is based on four elements which are expected to ensure food safety along the food chain, namely: i) interactive communication; ii) system management; iii) food safety hazard control using prerequisite programs and HACCP and, iv) continual improvement and food safety management system updates.

ISO 22000:2018 standard (like previous versions of the same standard) embeds HACCP management system, adding several other features; The HACCP principles and 12 steps are mirrored inside ISO 22000 clauses; correspondence tables are also published.

ISO 22000:2018 is **not** GFSI recognized. However, ISO 22000:2018, ISO TS 22002-1 (food manufacturing) and ISO TS 22002-4 (food packaging) are embedded, together with additional features, in the standard *FSSC 22000,* a private food safety standard, which is GFSI-recognized.

None of the sampled enterprises are certified in accordance with ISO 22000:2018; however, there are several enterprises certified in accordance with HACCP (i.e. complying only in part with the requirements for ISO 22000:2018) and a few ones certified in accordance with *FSSC 22000*.

48 replaces: ISO 15161:2001, now repealed

A3. PRIVATE STANDARDS MOST ADOPTED IN F&V SUPPLY CHAINS IN ALBANIA

A3.1 Food safety and quality standards and standards related to supply chain segments

A3.1.1 GlobalGAP standards

GlobalGAP is the most popular family of private standards dealing with *primary food production;* however, its additional modules also cover other supply chain segments.

These standards and the relevant certifications aim to assure the counterparts of a certified company that the latter observes internationally recognized good practices. The GlobalG.A.P. standards consist of General Rules and Control Points and Compliance Criteria (CPCC.).

GlobalG.A.P. standards include several specifications for value chain segments and/or specific markets and add-on modules.

The primary GlobalG.A.P. certification is IFA – Integrated Farm Assurance, devoted to mixed farming activities, but there are more specific standards related to F&V (IFA v6) or to specific value chain segments. Table 4.1 below details the standards, add-on modules and other GlobalG.A.P. tools.

The articulated structure of standards also provides the possibility of a gradual introduction of increasingly complex standards. **Diagram A3.1** below provides an example of such approach: in production systems characterized by small production and predominantly localized markets, but high demand for quality, it is possible to start introducing Local G.A.P PFA (Primary Farm Assurance), which is essentially a capacity-building tool for gradual introduction of more complex standards.

When targeting F&V markets such as the EU, Switzerland or the US, it is necessary to introduce more complex and specialized standards, such as the Integrated Farm Assurance v6 (IFA v6), specifically designed for F&V sector. For those companies dealing only with a certain part of the supply chain, it is also possible to introduce good practices that refer only to a segment of the supply chain, e.g. the Product Handling Assurance (handling), the Produce Safety Assurance (primary production) or Harmonized Produce Safety Standard (primary production specifically developed for the US market).

For markets, market niches or buyers with specific requirements, it is also possible to introduce add-on modules, e.g. the BioDiversity add-on to IFA, which guarantees that, in addition to standard IFA provisions, specific good practices for the preservation of biodiversity are also applied. Some add-on modules were developed in cooperation with and according to specific buyers' requirements, such as Nurture Module (Tesco, a UK retailer), AH-DLL GROW (for Albert Heijn in the Netherlands or Delhaize in Belgium), Coop Italia Pesticide Transparency.

The IFA standard includes:

- All Farm Base Module targeting multi-activity farms. This is the foundation of all Scope and Sub-Scope Modules;
- Scope Modules for specialized farms; there are three scope modules for plants, livestock and aquaculture;
- Sub-Scope Modules for specific products or segments of the supply chain. These CPCC cover all the requirements for a particular product or various aspects of the food production and supply chain;

FIGURE A3.1: GLOBALG.A.P. FAMILY OF PRODUCTS

Source: GlobalG.A.P. website https://www.globalgap.org/uk_en/what-we-do/globalg.a.p.-certification/localg.a.p./

Table A3.2.1 below shows the different GlobalG.A.P standards and the good practices that they refer to. Those standards which are particularly suitable for the fresh F&V sector and for the EU market are highlighted in the following table.

TABLE A3.1: SYNOPSIS OF GLOBALG.A.P. STANDARDS AND MAIN TOOLS

Standards	Description
GlobalG.A.P. Integrated Farm Assurance - IFA	*All Farm Base Module* for mixed farming activities defines all the requirements that all producers should initially comply with in order to obtain certification
Sub-categories:	*Scope Module* for F&V, flowers, ornamental, hops, aquaculture. Present: IFA v5.2. IFA v6, in force starting from Q3/2024. If specific for flowers and ornamental plants, the standard is known as IFA FO5.2
» IFA v5.2-v6	
» IFA Plants	*Scope Module* for F&V, flowers, ornamental primary producers
» IFA Aquaculture	*Scope Module* for aquaculture primary producers
» IFA Livestock	*Scope Module* for livestock primary producers
Produce Safety Assurance	*Sub-Scope Module focused only on food safety elements*, thus resulting in a much more limited scope as compared to IFA[49]
Crops for processing	*Sub-Scope Module* for crops to be frozen, juiced, used to make pre-cooked meals, and used for animal feed, among other types of processing. These crops will be held to the same standard as IFA crops, with the exception of two differences: the risk-based approach to food safety and the auditing rules
Chain of Custody	*Sub-Scope Module* to ensure traceability and segregation of Global G.A.P. products, to prevent dilution or mixing with non-certified products[50]. It is obligatory for companies that label products with a GLOBALG.A.P. identification number
Produce Handling Assurance (PHA)	*Sub-Scope Module* for post-harvest activities, including handling and storage. Mostly used for F&V supply chains
Harmonized Produce Safety	*Sub-Scope Module* for F&V is benchmarked to the Global Food Safety Initiative (GFSI) and comprises the Combined Harmonized Standard from the International Fresh Produce Association. It has been primarily developed for US market subjects selling in the US market
Compound Feed Manufacturing	*Sub-Scope Module* for quality assurance in the production, supply and purchase of raw materials intended to be used as compound feed ingredients for those animal productions covered by the relevant IFA standards (IFA, IFA v6, IFA livestock, IFA aquaculture)
Livestock transport	*Sub-Scope Module* for livestock transport
GGFSA v2.1 **GlobalG.A.P./SAI platform solution**	This module combines the Global G.A.P. IFA standard and the FSA (Farm Sustainability Assessment) tool developed by the Sustainable Agriculture Initiative (SAI) Platform. The producers adopting this solution comply both with Global G.A.P. IFA standard and with the highest environmental standards included in the FSA

[49] Produce Safety Assurance has 141 control points (CPSS) vs. 241 CPSS foreseen by IFA

[50]The chain of custody standard: "i) Identifies products originating from GLOBALG.A.P. certified production processes and safeguards this status throughout the entire process, from farm to retailer; ii) Lays out strict requirements for the handling of products originating from certified production processes, including the proper segregation of products that originate from GLOBALG.A.P. certified production processes from those which do not; iii) Obligatory for companies that label products with a GLOBALG.A.P. identification number (e.g., GGN, CoC Number) or participate in the GGN label initiative; iv) Enhances supply chain transparency and product integrity, providing added value and customer reassurance" Source: Global G.A.P. website in: https://www.globalgap.org/uk_en/for-producers/globalg.a.p./coc/

IFA FRUITS & VEGETABLES STANDARD

Figure 1. IFA Fruits & Vegetables Standard (Control Points 221)

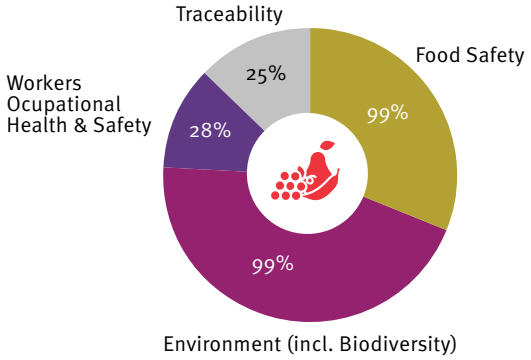
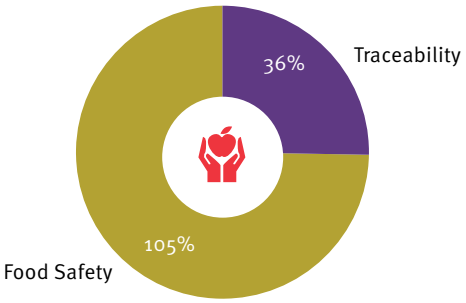


Figure 2. Produce Safety Assurance Standard (Control Points 141)



Additional modules	Description
Biodiversity	Includes rules, principles, and criteria for biodiversity management practices, including also IPM practices, protection and restoration measures, biodiversity and soil & nutrients management plans
FSMA PSR	Specifically for the US F&V market, to comply with the Food Safety Modernization Act Product Safety Rules (FSMA-PSR). In addition to the main IFA module
Nurture Module v11.4	Specific to Tesco F&V, adds 20 control points and compliance criteria related to the handling of "unfinished" Tesco products, i.e., products that are not ready for retail sale at the time of dispatch
GRASP	Assess social practices on the farm, addressing specific aspects of workers' health, safety and welfare
Responsible operations	For animal feed sustainable production (livestock and aquaculture). Applies to feed mills; add-on to the Compound Food Manufacturing standard. Includes practices such as energy and water reduction, waste and effluents prevention, social engagement promotion, additional product declarations on feed efficiency, environmental impact and GMO.
SPRING - Sustainable Programme for Irrigation and Groundwater Resources	For improved water resources management. Initially developed for Swiss retailer Coop in 2016, was later generalised.
RT4 biosecurity	Specifically developed to improve the prevention of banana FOC 4 pathogens.
SMI-Sustainable Meat Initiative	Specifically developed for Dutch pig breeders finishing pigs for the domestic market; includes additional provisions on animal health, animal welfare and environment protection.
Animal Welfare	For enhanced animal welfare.
NON-GM/"Ohne GenTechnik"	This add-on to the Compound Feed Standard is aligned with the German OhneGenTechnik voluntary standard51 and enables the use of the VLOG logo; this add-on module is applicable to Compound Feed, Livestock, Aquaculture and Chain of Custody (animal products) standards and is applicable only in EU countries, countries adopting rules equivalent to Reg. 1829/2003 and Reg. 1830/2003, or where cultivation and import of GMO products is not allowed.

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The German government developed a NON-GM label in line with the EU legislation and licensed it to the German association VLOG e.v., the Industry Association Food without Genetic Engineering. Any companies applying the standard have the right to use this logo.

SIZA Environmental	This add-on to GlobalG.A.P. IFA v6 (specific for F&V) is specifically developed for South African Producers and allows them to also comply with SIZA environmental standard52 and obtain the relevant certification
Impact-Driven Approach to Sustainability	Specific for flowers and ornamental plant growers. Add-on to IFA FO v5.2, it is in line with the Floriculture Sustainability Initiative requirements regarding digital registration for environmental metrics
AH-DLL GROW	This add-on module to IFA v6 is specific for F&V and is required for those producers that supply fresh produce to Albert Heijn in the Netherlands or Delhaize in Belgium. Developed with these two supermarket chains; introduces additional control points for hygiene, pesticide residues and foreign bodies for increased requirements as compared to EU legal provisions. Based on Albert Heijn Residue Protocol version 2 (AHP v2). Introduced in 2020
Coop Italia Pesticide Transparency	This add-on module to IFA is specific for F&V and is required for those producers that supply Coop Italia-branded F&V. Initially introduced in 1993, it is aimed at evaluating and monitoring the potential use of a shortlist of agrochemicals
Other tools	Description
GGFSA v2.1 **GlobalG.A.P./SAI platform solution**	This module combines the Global G.A.P. IFA standard and the FSA (Farm Sustainability Assessment) tool developed by the Sustainable Agriculture Initiative (SAI) Platform. The producers adopting this solution comply both with Global G.A.P. IFA standard and with the highest environmental standards included in the FSA
LocalG.A.P. PFA	Specifically developed for small producers selling primarily in local markets as a capacity-building tool, or to be applied as a local standard for agricultural supply chains, especially in emerging markets. It does not provide certification, but represents the first step towards IFA certification

[52] SIZA is a South African standard for the sustainable management of environmental resources in F&V production

A3.1.2 FSSC 22000 standard

FSSC 22000 is a ***food safety*** certification scheme developed by the Foundation for Food Safety Systems Certification (FSSC). The standards cover manufacture of animal products, perishable plant products, products with a long shelf life, and other food ingredients such as additives, vitamins and organic crops and materials for food packaging.

The FSSC 22000 standard was developed by the Foundation for Food Safety Systems Certification (FSSC) based on the need for an independent, ISO-based food safety scheme. The standard is recognized by the Global Food Safety Initiative (GFSI)

FSSC 22000 contains a certification program for food safety systems that incorporates the standards ISO 22000, ISO 22003, and technical specifications for sector pre-requisite programs (PRPs), like ISO 22002-1 and PAS 223.

FSSC 22000 applies to organizations of any size which produce food within the following categories:

» Perishable products of animal origin (meat from cattle, swine, sheep, poultry, eggs, dairy and products from the sea and fishing), excluding slaughterhouses and previous stages;

» Perishable plant products (fruits and fresh and canned vegetables, canned vegetable products);

» Products with long life exposed to room temperature (canned food, cookies, snacks, oil, mineral water, beverages, pasta, flour, sugar, salt);

» Biochemical products for food production (vitamins, additives and biocultures), excluding reaction catalysts and other technical and technological aids;

A3.1.3 BRCGS - Brand Reputation Compliance Global Standards

BRC Global Standard for Food Safety is a safety and quality certification scheme. It was developed by BRC, the *British Retail Consortium* (BRC) and covers the whole food manufacturing process, not only retailing; in 2016, BRCGS was purchased by LCG group; following this acquisition, the "BRC" acronym was changed to "Brand Reputation Compliance", to provide a more global outreach to the standard, removing the words "Retail" and "British", which were considered as restrictive.

The standard provides a framework for food manufacturers to assist them in the production of

safe food and to manage product quality in line with customers' requirements.

The standards include: i) a main standard, focused on food safety and quality in the whole manufacturing process (i.e. excluding primary production), and, ii) standards related to specific value chain segments (e.g. handling), stakeholders or inputs (e.g. packaging) and, iii) assessment tools. The specific standards and the assessment tools are summarized in the table below.

The BRCGS standards do not include primary production; however, *most standards are suitable for essential oils manufacturing and marketing* and for products based on essential oils

Among the assessment tools, it is worth mentioning the "*Food Safety Culture Excellence*", one of the few audit tools focused on culture for quality.

TABLE A3.2: BRCGS STANDARDS AND MAIN FEATURES

STANDARDS	MAIN FEATURES
STANDARDS FOR CATEGORIES OF PRODUCTS	
Consumer products – 2 standards	Also includes non-food products, divided into two categories: » General merchandise and personal care and household (*including cosmetics)*
Plant-based certification	» Includes operational criteria to ensure that plant-based products are free of materials of animal origin » *Can be used as an add-on module to any other GFSI recognized standard*
Gluten-Free Certification Program	» Risk-based, including risks of cross-contamination
STANDARDS FOR SPECIFIC ASPECTS OF THE VALUE CHAIN	
Ethical trade and responsible sourcing global standard	» Developed for food and non-food manufacturing, secondary processing and packing sites, also including services to these sites and enterprises » It is the first and, as of now, the only scheme of its kind to be recognized by SSCI [53]
Food safety v9	» Applicable to the food and food ingredient manufacturing, processing and packing industry, *not to primary production* » First standard to be benchmarked by GFSI[54]
Storage and Distribution v4	» Ensures quality and safety of products during storage and distribution - including logistics - throughout the supply chain » Designed for logistics operations dealing with Food, Packaging, and Consumer Products » Includes add-on modules for: i) wholesale, ii) e-commerce, iii) cross-docking, iv) contracted packaging services, v) contracted waste management, vi) contracted inspection services
Packaging Materials V6	» For companies supplying packaging to food producers » First of this category recognized by GFSI » Also includes re-packaging activities » Specifies product safety, quality and operational criteria that should be in place within a packaging manufacturing organisation for legal compliance and consumer protection

[53] It has been announced that, from 2024, the Floriculture Sustainability Initiative (FSI), the Sustainability Initiative for Fruits and Vegetables (SIFAV) and the Sustainable Juice Covenant (SJC) will only accept audits from third-party social sustainability standards that have been benchmarked and recognised by the Consumer Goods Forum (CGF) Sustainable Supply Chain Initiative (SSCI).
[54] Global Food Safety Initiative

Retail	» To reduce losses through regulatory fines, product wastage, operational shrinkage and customer litigation in retailing » Involves audits of management systems and assessment of practices and inspection, as compared to inspection-only methods
Start!	» Specifically designed for SMEs in food and consumer goods sectors » Recognises and encourages the development of food safety systems in small sites where food safety management systems are immature
STANDARDS FOR VC STAKEHOLDERS	
Agents or brokers	For food traders: provides a framework to manage product safety, authenticity, quality and legality for businesses that buy, sell or facilitate the trade of food products, but do not manufacture, process or store the products in their own facilities or at their own sites
ASSESSMENT TOOLS	
Food Safety Culture Excellence	» Based on 20 indicators » Merges indicators of 4 different categories into a single value

Standards are modified in accordance with the evolution of the legal framework and trends. In particular, a new and more comprehensive standard for traceability has been proposed to comply with the "Requirements for Additional Traceability Records for Certain Foods", which is one of the last remaining elements of the FDA's Food Safety Modernization Act (FSMA) to be fully implemented. This enhanced traceability standard would apply to 18 food types, including: i) tomatoes, ii) peppers, iii) melons and, iv) herbs.

10% of the enterprises surveyed in this study were certified BRCGS[55]

A3.1.4 IFS

IFS is a family of private standards covering six areas: i) Food products; ii) Logistics; iii) Packaging (PACSecure) products; iv) Wholesale Cash & Carry; v) Brokering activities; vi) Human Personal Care (HPC) products. For some areas (Food, Logistics, PACSecure, HPC) there is a twin version of the standard: the basic one and the "Global Markets" one (e.g. "Food" and "Food GM").

IFS "Food" and "Food GM" standards are focused on food quality and safety. The specific characteristics of "Food GM" vs. the basic "Food" standard is its flexibility, as it is possible to scale up compliance with the requirements from "Food" to "Food GM" based on a customized approach, i.e. it is possible to set the pace for full compliance with "Food GM" standards, ideally in agreement with customers' needs.

IFS standards are focused on production processes or segments of the supply chain, which means that they are product/service-oriented, rather than enterprise-oriented, as is the case for most ISO standards.

[55]Including answers "certified BRC" and "certified BRCGS"

A3.2 VSS categories and overall EU buyers' demand for VSS

A3.2.1 VSS categories, private organisations owning them and main TIC

The Voluntary Sustainability Standards – VSS are standards linked to the Sustainable Development Goals; these VSS are commonly divided into nine sub categories, namely: i) Due diligence, ii) Credibility, iii) Traceability, iv) Food Safety, v) Quality, vi) Sustainable business, vii) Human and labour rights viii) Environment and climate change and, ix) Gender. Each VSS can be included in one or more categories, depending on its scope.

Some ISO standards such as ISO 45001 (Occupational health &Safety),ISO 14001 (Environmental management system) and, ISO 50001 (Energy management) are also linked to SDG, but cannot be classified as VVS according to UNCTAD definition.

There is a large number of VSS. The ITC *Standards Map database*[56] considers over 300 VSS[57], many of which are part of VSS families, such as GlobalG.A.P., which is made of core standards, production-oriented specific modules (which generate a separate standard) and add-on modules. Some large buyers, such as supermarket chains, collaborate with auditing firms to develop their own standards (e.g. Tesco with GlobalG.A.P., with the Nurture 11.4 add-on module)

[56]Standards Map (2022). Standards Map free toolkit. In: https://www.standardsmap.org/en/home

[57] The database covers all countries worldwide, but has a specific focus on a limited number of agricultural commodities, excluding fruits and vegetables and MAPs. The database provides information on the following topics: i) a review of over 300 sustainability standards, ii) a tool for multi-criteria comparison of different standards, iii) a tool for self-assessment vs. a specific standard and, iv) monitoring trends of certification schemes (area, number of producers, variation in last year). Among different monitoring features, the database provides: iv.1) an overview of the most common standards adopted for different crop categories and countries, iv.2) trends and figures regarding the use of different standards (surface, number of certified enterprises, growth over time).

Regardless of the fact that most VSS include modules for fruits and vegetables[58], few of them are commonly required in the Western Balkans, the most common being summarized in **table A5.3** below.

It is possible that multiple certificates are required, each relevant to a specific stage of the supply chain. For example, it is possible that GlobalG.A.P is required for general agricultural practices (GlobalG.A.P. *IFA v6*) and, in addition, *IFS* for food safety, even if the same level of certification could be obtained with a GlobalG.A.P. add-on module, such as *Produce Safety Assurance* and/or *Product Handling Assurance - PHA*

More broadly, buyers are increasingly demanding the adoption of voluntary standards. In many cases, specific requirements that are not associated with a formalised standard are requested.

Certifications such as Global G.A.P. and Smeta emerged as very important factors to be considered as serious and reliable counterparts in the European market.

[58] For example, RA – Rainforest Alliance has specific sub-modules for sage, oregano, thyme, lavender and Helichrysum. However, there is no known demand for RA MAPs certifications from Western Balkans producers.

TABLE A3.3: MAIN VSS ADOPTED FOR FRESH FRUITS AND VEGETABLES

ISSUER AND STANDARD/ SCHEME	MAIN FEATURES	MAIN MARKETS WHERE IS REQUIRED
Issuer: Global G.A.P. **Standards**: IFA v6	» Sustainable Agriculture practices	All EEA markets, especially Northern Europe and supermarkets
Issuer: Sedex **Standard**: Smeta	» Social audit on workers' conditions	UK, Germany and other EEA countries; several supermarket chains adopt SMETA
Other standards required for F&V import in EEA markets, but not commonly required from WB producers		
Issuer: Global G.A.P. **Standards**: buyers-specific modules	» Nurture Module v11.4 – Tesco » AH-DLL GROW (AlberthHeijn and Delhaize) » Coop Italia pesticide transparency	» Nurture Module: UK » AH-DLL: Netherlands, Belgium » CIPT: Italy
Issuer: Global G.A.P. **Standards**: Environmental and social responsibility add-on modules	» Biodiversity » SPRING (water use) » GRASP (workers welfare, health, safety)	
Issuer: **Global G.A.P.** **Standard**: ETRS - Ethical Trade and Responsible Sourcing	» Made up of a Global Standard and a separate ETRS Risk Assessment » The standard is based on six indicators for ethical trade and responsible sourcing management system » ETRS Risk Assessment is a diagnostic vs. five key ethical trade and responsible sourcing indicators to achieve the Global Standard	» Most EEA countries
Issuer: Amfori **Audit system**: BSCI	» Social audit system » Focused on supply chain » Does not lead to certification » Can be used as preparatory system for SA8000 certification	
Issuer: SAI **Audit system**: SA8000	» Social responsibility certification	

Issuer: Ecocert **Standards**: Fair for Life	» Fair trade – linked to supply chain	» Buyers, mainly in EEA, (France, Switzerland, Belgium, Netherlands, Germany main countries)
Issuer: Ecocert **Standards**: Fair for Life	» Corporate responsibility – social, environmental » Several companies dealing with essential oils (Serbia, Bulgaria)	» France and other EEA countries
Issuer: Rainforest Alliance **Standard**: Sustainable Agriculture Standards V1.3: i) farm; ii) supply chain	» Main indicators (88%): environmental, human and labour rights, due diligence, credibility; also gender indicators » *1 certified company in Albania* » *In Europe applicable to Albania, Bulgaria, Croatia, Germany, Poland, Spain*	» Most high income countries
Issuer: LCG Group **Standard**: BRCGS	» Food safety and quality in processed products (non-primary products) » Several specific standards for supply chain segments or components (e.g. packaging)	
Issuer: GFSI **Standards**: IFS Food 7	» Food safety and quality in processed products (non-primary products)	Mainly Germany and France
Issuer: Fairtrade **Standards**: Family of 7 standards	» Family of standards relevant to different aspects of sustainability in terms of labour, environment, fair trading conditions » Specific standards for small growers; » Applicable to **producers** in some emerging countries, not including any European country	
Standards widely adopted in the EEA and the US, but not applicable to Albania		
Issuer: Rainforest Alliance **Standard**: UTZ	» Focused on sustainable value chains; » With the introduction of RA Sustainable Agriculture Standards v1.3 is gradually phased out	

3.2.2 Summarized description of the most relevant VSS

Ecocert Fair for Life and For Life

Fair for Life and *For Life* standards and certification schemes are complementary

Fair for Life (FFL) and For Life (FL) are considered by the issuer as two complementary standards sharing a common ground:

» Respect human rights and fair working conditions;

» Respect ecosystems and promotion of biodiversity, sustainable agricultural practices;

» Positive local impact.

» The two standards focus on different aspects:

» FFL is a product certification programme for fair trade and responsible supply chains;

» FL is a certification programme addressed to companies willing to demonstrate their corporate social responsibility. FL product certification is also an option.

Fair for Life

"Fair for Life" is a certification programme for *fair trade* in agriculture, manufacturing and trade. It was created in 2006 by the Swiss Bio-Foundation in cooperation with the IMO Group and then taken over by the Ecocert Group in 2014 to meet a specific demand from organic farming stakeholders".

Fair for Life is based on the concept of "responsible supply chains", giving value to exemplary supply chains, where stakeholders have chosen to act responsibly by implementing good economic, social and environmental practices, including practices such as long-term contracts with fixed prices and volumes, which facilitates the establishment of fair partnerships along the supply chain.

So far, there are over 700 Fair for Life certified companies, whose supply chains involve over 235,000 suppliers and workers. There are no certified Fair for Life companies in Western Balkans, except for one in Greece dealing with non-food products.

Depending on the percentage of certified Fairtrade components, a product can be labelled as "Fair Trade" (over 80% of fair trade components) or "Made with Fair Trade Ingredients"

Among the certified Fair for Life companies, there are also EU cosmetic producers buying essential oils for their own activity. More in general, certified Fair for Life enterprises could be interesting as buyers, as they should seek long-term and stable contracts and fair prices.

For Life

For Life standard and certification is a standard for corporate social and environmental responsibility, i.e. *it is focused on a single company* rather than on its value chain, including suppliers.

The For Life certified enterprises are less numerous than those certified as *Fair for Life; A Serbian company dealing with essential oil export is the only For Life certified company in the Western Balkans*

GFSI International Featured Standard -IFS Food 7

The Global Food Safety Initiative (GFSI) IFS Food 7 standard is a benchmarked standard for food manufacturers, wholesalers, distributors, agents and brokers. It is mostly used when products are processed or when there is a risk of contamination during packaging in primary packaging. Emphasis is placed on food safety and the quality of processes and products. IFS Food 7 is more commonly used in Germany and France, but is recognised all over Europe.

It does not cover primary production.

SMETA – Sedex Members Ethical Trade Audit

Sedex - Supplier Ethical Data Exchange is an online system that records data on ethical and responsible practices and allows suppliers and customers to share this information.

SMETA is an audit, designed by Sedex, to help protect workers from unsafe conditions, overwork, discrimination, low pay and forced labour. It is focused on the standards of labour, health and safety, environmental performance, and ethics within the audited company or at a supplier site.

SMETA focuses on the whole value chain, meaning that not only addresses internal corporate performance in terms of responsible practices, but is also extended to its suppliers; in the case of Albanian exporters of fruit and vegetables, they should be SMETA-audited in order to supply SMETA certified or BSCI complying buyers.

SMETA is conceptually similar to BSCI (see below); however, it includes some additional parameters, such as maximum working hours.

According to Sedex, SMETA is the world's most widely used labour audit. Supermarket chains such as Tesco, Lidl and Coop Swiss are among SMETA-certified supermarket chains.

In a broader context, SMETA is designed for a wider European market, as compared to BSCI, which is more focused on EU countries. However, there is mutual recognition between SMETA-certified and BSCI-audited companies, meaning that a BSCI-audited supplier is considered as a suitable partner for a SMETA-certified buyer and vice-versa.

One of the enterprises surveyed in this study was SMETA-certified

SA8000 certification and BSCI social audit system

The Business Social Compliance Initiative – BSCI is a social audit methodology focused on working conditions along the supply chain. Producers that meet all BSCI requirements can go further and achieve the SA8000 social management certification.

The BSCI audit system is developed by Amfori, while the SA8000 certification was developed by Social Accountability International (SAI).

BSCI is focused, as SMETA, on the standards of labour, health and safety, environmental performance and ethics. Compliance is to be ensured along the value chain, i.e. within the audited company or at a supplier site. This means that the suppliers of a BSCI-audited buyer should also be BSCI-compliant or SMETA-certified.

BSCI is conceptually similar to SMETA (see above), but is primarily designed for EU subjects, while SMETA was designed for a wider European range of customers.

There is mutual recognition between BSCI-audited and SMETA-certified companies, meaning that a SMETA-certified supplier is considered as a suitable partner for a BSCI-audited buyer and vice-versa.

Rainforest Alliance

Developed by Rainforest Alliance, a non-profit

organisation, the *Sustainable Agriculture Standards V1.3* is a benchmarked standard, including indicators of different categories.

The main categories, representing 86% of the total weight, include: i) due diligence, ii) credibility, iii) labour and human rights and, iv) environment protection. Other indicators include gender, traceability and business sustainability.

The *Sustainable Agriculture Standards* is composed of two standards: i) for farmers and NTFP collectors and, ii) for responsible supply chains.

The UTZ certification programme for sustainable agriculture was included in the Rainforest Alliance in 2018. With the introduction of the 2020 RA version of the *Sustainable Agriculture Standards* (version 1.3), the UTZ certification programme is gradually phased out.

Fairtrade

Fairtarde is the mark corresponding to a set of standards owned by Fairtrade International, an NGO composed of national representatives, e.g. UK Fairtrade Foundation.

Fairtrade International is structured into two organisations: i) Fairtrade International EV, an NGO that develops and adapts the standards over time; ii) FLO-CERT Gmbh is the TIC associated to Fairtrade standards; however, while FLO-CERT is in charge of certification, licensing and regulating the use of the mark is the task of each national representative.

There are seven groups of standards, each with related product-specific standards: i) Standards for small-scale producers; ii) Standards for hired labour organizations (companies); iii) standards for contract production; iv) trader standards (for traders dealing with Fairtrade products); v) Climate standards (for carbon credits); vi) textile standard (covering the whole supply chain) and; vii) gold standards (small-scale mining activities).

The standards are primarily focused on the establishment of equitable relations between value chain stakeholders (e.g. fair prices paid to primary producers or fair payment for work), working conditions (e.g. freedom of association, not using child labour) and environmental indicators.

Not all the standards are applicable to all countries: for most standards, it is specifically indicated which products and countries they refer to.

In Albania, 2% of the surveyed companies are certified Fairtrade.

3.3 Standards related to cultural and religious values
The most common standards of this category are those products classified as "Halal" and "Kosher". In Albania, there is a full supply chain specialized in "Halal" products, but not F&V exporters.

On the contrary, in the Albanian domestic market, it is quite rare to find "Kosher" certified products, while *10% of the enterprises considered in the study are certified as "Kosher".*

The main features related to Kosher and Halal certification for fruits and vegetables and fresh and processed MAPs are described herein below.

Halal standards

Halal standards refer to those products the consumption of which is considered as compatible with Muslim religion[59]. There is not a single Halal standard; different countries may apply different standards; different certifying agencies also apply different standards.

Halal principles are applied to all products, including food products, essential oils and products having essential oils as components, such as cosmetics.

Three standards in Halal Food certification were agreed upon and went into effect at a conference held by the member nations of the Islamic Countries Standardization Institute due to research conducted under the framework of the Organization of Islamic Cooperation.

Halal food standards contain Islamic laws that must be observed in various phases of the manufacturing process, including sourcing, preparation, processing, categorization, packing, labelling, regulating, loading, unloading, transportation, distribution, and storage.

Regardless of the production process, some food products are considered "Haram" or not suitable for "Halal" diet.

All fruits and vegetables are "halal", except for those that produce drunkenness; however, the standards also anticipate the risk of contact contamination: any "halal" product which is mixed or comes into contact with prohibited products (e.g. cherries under spirit or herbal spirits) shall no longer be classified as "halal".

Kosher standards

"Kosher" is a Jewish word that roughly translates into "fit or suitable". Under Kosher standards, all food falls into three categories: i) meat, ii) milk, iii) all other food ("pareve").

Fresh fruits, vegetables and grains are, in their natural unprocessed state, kosher and pareve. They do not need kashrut certification and can be used with either dairy or meat. However, once a vegetable is combined with a dairy or meat product, it becomes dairy or meat respectively.

A major issue, especially in organic productions is the possible presence of insects on the product. The prohibition against consuming insects, even very tiny ones — as long as they are visible to the naked eye — is

[59] "Halal" means "allowed"

mentioned five times in the Torah and is very strict. As a consequence, all products certified as Kosher should be carefully tested for the absence of any visible insects.

Kosher certifications can be challenging to achieve for growers. In general, the focus is on cleanliness and washing systems. There are several steps to the process, and each one can be difficult to pass if the produce shows any signs of contamination.

First, the certification agency will examine a sample of the crops. If this sample is determined to be clean, the next step consists of a site inspection. In this inspection, certifiers will examine the entire cycle of operations, including the condition of growing plants and how they are handled after harvesting.

Once certification is achieved, each crop should continue to be inspected before and after washing. The after-washing inspection is the most difficult to pass, as any evidence of insect matter, no matter how minimal, will render the entire crop unsuitable for Kosher certification. In some cases, Rabbis must be present for the washing process to ensure that everything is done to the highest standards and purity is achieved.

Other issues are related to the processing activities. For instance, any equipment that has been used for processing non-kosher products should be completely cleaned before processing a lot to be certified as Kosher.

ABBREVIATIONS

ADAD	Organization of Agriculture Development in Mountainous Regions
AGT	AGROTEC S.p.A.
AIDA	Albanian Investments Development Agency
AKIS	Agriculture Knowledge and Innovation System
ALL	Albanian lek
ANES	Agricultural National Extension Services
ARDA	Agency for Rural Development and Agriculture
ARDPF	Agriculture and Rural Development Program Fund
ATTC	Agriculture Technology Control Center
AUT	Agriculture University of Tirana
BRC	Brand Reputation Compliance
BRCGS	Brand Reputation Compliance Global Standards
BIP	Border Inspection Points
BSCI	The Business Social Compliance Initiative
CAS	Chemical Abstract Services
CASCO	Council Committee on Conformity Assessment
CBP	Commission of Biologic Production
CEFTA	Central European Free Trade Agreement
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CFR	Code of Federal Regulations
CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
CMO	Common Market Organization
COI	Electronic certificate of inspection

COMTRADE	United Nations Commodity Trade Statistics Database
CPCC	General Rules and Control Points and Compliance Criteria
DANIDA	Danish International Development Agency
DCM	Decision of Council of Ministers
DSA	Development Solutions Associates
DPPHSSF	Directorate of the Policies in the Plant Health, Seed, Seedling and Fertilizer
EC	European Commission
ECHA	The European Chemical Agency
EEA	European Economic Area
EEC	European Economic Community
EFSA	European Inventory of Existing Chemical Substances
EIP-Agri	Agricultural European Innovation Partnership
ETO	Ethylene Oxide
ETRS	Ethical Trade and Responsible Sourcing
ETSI	European Telecommunication Standards Institute
EU	European Union
EUROSTAT	Statistical office of the European Union
F&V	Fruits and Vegetables
FAO	Food and Agriculture Organization
FAOSTAT	Food and Agriculture Organization Corporate Statistical Database
FBO	Food Business Operators
FDA	Food and Drug Administration
FFL	Fair for Life
FL	For Life
FPRC	Fertilizer Products Registration Commission
FSA	Food Standards Agency
FSMA	Food Safety Modernization Act
FSSC	Food Safety System Certification
FSVI	The Food Safety and Veterinary Institute

GACP	Good agricultural and collection practice
GAP	Good Agriculture Practices
GDA	General Directorate of Accreditation
GDM	General Directorate of Metrology
GDS	General Directorate of Standardization
GFSI	The Global Food Safety Initiative
GGN	Number for organic certification
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GLP	Good Laboratory Practice
GMO	Genetically Modified Organisms
GMP	Good Manufacturing Practices
GQSP	Global Quality and Standards Program
GVA	Gross Value Added
GSP	General System of Preferences
HACCP	Hazard Analysis and Critical Control Point
IAF	International Accreditation Forum
ICCA	International Chamber of Commerce of Albania
IEC	International Electrotechnical Commission
IFA	Integrated farm assurance
IFS	International Featured Standards
IFSV	Institute of Food Safety and Veterinary
INSTAT	Institute of Statistics of Albania
IPA	Instrument for Pre-Accession Assistance
IPARD	Instrument for Pre-Accession Assistance for Rural Development
IPM	Integrated Pest Management
ISARD	Inter-Sectoral Agricultural and Rural Development
ISETN	Institut Supérieur des Etudes Technologiques de Nabeul
ISO	International Organization for Standardization
ISUV	The Institute of Food and Veterinary Safety

ITC	International Trade Center
KASH	Albanian Agribusiness Council
LAME	Laboratory of Agro-Environment and Ecology
LIMS	Laboratory Information Management Systems
LPIS	Land-parcel information systems
MAPs	Medicinal and Aromatic Plants
MARD	Ministry of Agriculture and Rural Development
MFE	Ministry of Finance and Economy
MLA	Multi-Lateral Agreement
MRL	Maximum Level of Residuals
NAPA	National Agency of Protected Area
NAVPP	National Authority for Veterinary and Plant Protection
NFA	National Food Authority
NQP	National Quality Policy
NSB	National Standards Body
NTFP	Wild non-timber forestry products
OECD	Organization for Economic Cooperation and Development
PDO	Protected denomination of origin
PESTEL	Political, Economic, Social, Technological, Environmental and Legal Analysis
PHA	Product Handling Assurance
PIS	Phytosanitary Information Systems
PKIE	National Plan for European Integration
PPM	Product Prioritization matrix
PPP	Plant Protection Products
PPPAMS	Plant Protection Products Application Management System
PPPRC	Plant Protection Products Registration Commission
QI	Quality Infrastructure
QI4VC	Quality Along the Value Chain
QIS	Quality Infrastructure System

QMS	Quality Management System
QR Code	Quick response code
QSC	Quality Schemes Committee
QUID	Quantity of certain ingredients
RA	Rainforest Alliance
RASFF	Rapid Alert System for Food and Feeds
RFID	Radio Frequency Identification System
SAFIAL	Institutional strengthening of the Albanian Ministry of Agriculture and Rural Development for the food safety management
SAI	Sustainable Agriculture Initiative
SARDF	Strategy for Agriculture, Rural Development and Fisheries 2021 -2027
SARED	Agriculture and Rural Economic Development
SDC	Studies and Development Center
SDG	Sustainable Development Goals
SDS	Safety Data Sheets
SECO	State Secretariat for Economic Affairs
SESS	State Entity of Seeds and Seedlings
SIDA	Swedish International Development Cooperation Agency
SMSI	State Inspectorate for Market Surveillance
SME	Small and medium-sized enterprises
SMETA	SEDEX Members Ethical Trade Audit
SNV	Stichting Nederlandse Vrijwilligers (“Foundation of Netherlands Volunteers”)
SRD	Sustainable Rural Development
SSCI	Sustainable Supply Chain Initiative
SSH	Albanian Standard
SWG	Regional Rural Development Standing Working Group
SWOT	Strengths, Weaknesses, Opportunities and Threats Analysis
TBT	Technical barriers to trade
TIC	Testing, Inspection, Certification
TRACES	Trade Control and Expert System

TWG	Technical working groups
UK	United Kingdom
UN	United Nations
UN COMTRADE	United Nations The United Nations Comtrade
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe
UNIDO	United Nations Industrial Development Organization
UNSTAT	United Nations Statistics Division
USA	United States of America
USD	United States Dollar
USDA	United States Department of Agriculture
VAT	Value added tax
VC	Value chain
VVS	Voluntary Sustainability Standards
WB	World Bank
WHO	World Health Organization
WTO	World Trade Organisation

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

United Nations Industrial Development Organization (UNIDO)
Department of Digitalization, Technology and Innovation (DTI)
Global Quality and Standards Programme (GQSP)
gqsp@unido.org
HUB.UNIDO.ORG