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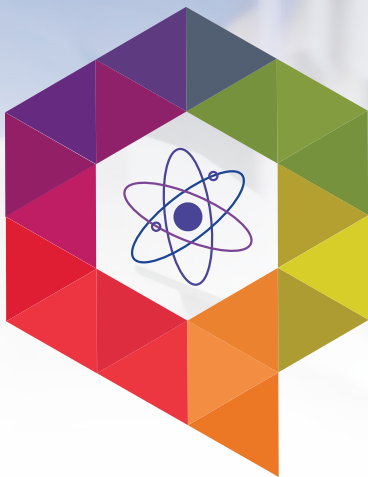


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GLOBAL QUALITY
AND STANDARDS PROGRAMME

State Secretariat for Economic Affairs SECO



COMPETING WITH QUALITY LABORATORY ASSESSMENT & FUTURE ACTIONS



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INTRODUCTION

Albania's burgeoning economy, notably in the medicinal and aromatic plant (MAP) and food and vegetable (F&V) sectors, faces challenges in meeting global export standards. The Global Quality and Standards Program (GQSP) strives to enhance compliance with quality and standards in these sectors, emphasizing the reduction of pesticide use and bacterial contamination. Implemented by the United Nations Industrial Development Organization (UNIDO) and funded by Switzerland's State Secretariat for Economic Affairs (SECO), the GQSP targets 12 countries, with a particular focus on the EU market. Albania, with its favorable climate and fertile conditions, holds substantial potential in the F&V market, serving both domestic and international markets, especially in prominent European destinations. Additionally, the country's cultivation of MAPs contributes significantly to its diverse plant species. However, strict adherence to food safety standards is imperative for Albania's EU integration and global competitiveness.



THE VITAL ROLE OF LABORATORY ASSESSMENT IN ALBANIA'S GLOBAL REPUTATION AND SAFETY STANDARDS

The impact of not meeting safety standards has had a detrimental effect on Albanian horticultural exports, especially concerning pesticide residues and bacterial contamination. These issues not only pose risks to public health but also result in financial losses for Albanian growers and exporters. With a substantial number of rejections at EU borders due to non-compliance, addressing these issues has become imperative for Albania's agricultural sector. This assessment underscores the critical role of laboratories in conducting thorough analyses to ensure the safety and quality of agricultural products. By enhancing laboratory capabilities and aligning them with international standards, the aim is to not only mitigate risks to public health and economic losses but also enhance Albania's reputation as a reliable supplier in global markets.



ENHANCING ALBANIA'S AGRICULTURAL LABS

OBJECTIVES AND METHODOLOGY

Objectives:

Evaluate the current status of laboratories supporting the MAPs and F&V value chains in Albania.

Identify existing gaps, challenges, and opportunities for enhancing laboratory infrastructure.

Propose strategic measures to elevate laboratory services to meet global standards.

Align laboratory capabilities with the evolving needs of the private sector and industry demands.

Methodology:

Desk Research: Gathering information on laboratory infrastructure and accreditation.

Database Analysis: Examining existing records related to agricultural laboratories.

Stakeholder Engagement: Obtaining insights from various stakeholders.

Surveys: Collecting data on capabilities, challenges, and needs.

Field Visits: Assessing infrastructure and operational processes firsthand.

Strategic Planning: Collaborative sessions to develop recommendations industry demands.

28
On-Site visits

**Technical
Laboratory
Capacity**

**Quality
Infrastructure
Assessment**

**Future
Training
Needs**



IMPROVING LABORATORY STANDARDS

KEY FINDINGS AND RECOMMENDATIONS

Key Findings:



Accreditation Status: Only 21 out of 66 identified laboratories in the Fruits & Vegetables (F&V) and Medicinal and Aromatic Plants (MAPs) Value Chain (VC) are accredited to ISO/IEC 17025 standards.



Identification Methods: Accredited laboratories are primarily identified through the General Directorate of Accreditation (GDA) website, while non-accredited laboratories pose challenges in terms of identification, as there is limited visibility or documentation available.



Ownership and Distribution: Most laboratories supporting MAPs and F&V are government-owned, with a concentration in the Tirana district, leaving other districts underserved. Few University laboratories are accredited.



Scope and Equipment: Few laboratories offer pesticide residue and heavy metal analysis, and many lack essential equipment for advanced analysis. The limited availability of laboratories offering pesticide residue and heavy metal analysis poses challenges in ensuring comprehensive testing for potential contaminants in agricultural products.



Lack of International Recognition: The Albanian Accreditation Body (DPA) has not yet signed the EA-MLA and the ILAC-MRA for calibration laboratories, limiting international recognition of calibration certificates issued by Albanian laboratories



Limited Analytical Capabilities: Many laboratories lack equipment for trace analysis and detection of foodborne pathogens, hindering their ability to provide comprehensive testing services.



Safety and Infrastructure Deficiencies: Several laboratories face shortages in energy and water supply, lack safety procedures, and have inadequate facilities, impacting their operational efficiency and reliability.



Budget Constraints: Public laboratories often struggle with insufficient budgets, hindering their ability to invest in equipment, training, and maintenance, thereby limiting their capacity to meet international standards.

Recommendations:



Encourage Accreditation: Stimulate laboratories to seek ISO/IEC 17025 accreditation and encourage universities to pursue accreditation.



Centralized Database: Establish a centralized database of accredited and non-accredited laboratories.



Foster Partnerships: Explore partnerships between government and independent laboratories to enhance cooperation and resource sharing.



Capacity Building: Support the expansion of laboratory capacity for pesticide residue testing. The general findings and recommendations highlight key challenges and opportunities within Albania's laboratory landscape, providing a comprehensive overview of areas in need of improvement.



Seek International Recognition: Support the Albanian Accreditation Body to sign the EA-MLA and ILAC-MRA for calibration laboratories to enhance international recognition of calibration certificates.



Enhance Analytical Capabilities: Provide support for laboratories to acquire equipment and training for trace analysis, foodborne pathogen detection, and other advanced testing methods to broaden their analytical capabilities.



Improve Safety and Infrastructure: Allocate resources to address deficiencies in laboratory safety procedures, infrastructure, energy, and water supply to ensure a conducive working environment for laboratory personnel.



Increase Funding Support: Increase funding for public laboratories to alleviate budget constraints, enabling them to invest in equipment, training, and infrastructure improvements to enhance their capacity and compliance with international standards.

These findings serve as the foundation for the development of both general and specific recommendations. General recommendations encompass broad improvements applicable to laboratory settings across the board, aimed at addressing overarching challenges and opportunities. These recommendations lay the groundwork for enhancing laboratory capabilities and aligning them with international standards, benefiting the entire laboratory community.

In contrast, specific recommendations are tailored to the objectives and goals of the GQSP project, directly supporting its mission and strategies. These targeted recommendations are intricately linked to the project's focus areas, ensuring alignment with its overarching objectives and maximizing the impact of the GQSP within the laboratory sector.

FOCUS AREAS

• Empowering Albanian Labs: Capacity Building for Food Testing Personnel

In this initiative, our goal is to fortify Albanian laboratories, particularly those integral to the F&V and MAPs VC, by enhancing their capacity and bringing them up to global standards. All laboratories involved in these sectors are invited to participate in this comprehensive program.

The program comprises a series of targeted training sessions covering essential areas such as safety protocols, ISO 17025 compliance, metrology, and quality assurance. These sessions will bring together personnel from both private and public institutions, fostering collaboration and trust among laboratories.

In the subsequent phase, hands-on training will focus on operating advanced equipment. This practical training will be conducted on-site at key laboratories, utilizing their own equipment. Additionally, selected technicians from these laboratories will have the opportunity to attend workshops at internationally renowned facilities specializing in the analysis of F&V and MAPs. On a second phase, hands-on training should be provided focused on operation of sophisticated equipment. The training should be eligible to the key laboratories and should be held on their premises with their equipment. Selected technicians from key laboratories can attend workshops on internationally recognized laboratories for the analysis of F&V and MAPs.



● **Fostering Excellence: Establishing a National Laboratory Association**

A National Association of Laboratories is crucial for networking, information sharing, and addressing issues in both public and private laboratories. It represents laboratory interests to national and international regulatory bodies and provides various services such as training, seminars, proficiency testing, consulting, auditing, and personnel certification. Additionally, it establishes technical committees to develop sector-specific guides and documents in the local language. The QOSP will play a significant role in initiating this association by organizing awareness meetings and facilitating interactions with existing associations. The association should be independent, non-profit, and governed by rotating board members elected from its members.

Benefits of an association:

- Networking with public and private laboratories to share information and address issues concerning your laboratory and the laboratory industry;
- Representing laboratory's interests before International and National lawmaking bodies and regulatory agencies;
- Representing laboratory's interests before National and International Quality Infrastructure Entities;
- Participation on technical committees to prepare sectorial guides and documents;
- Offer of training courses;
- Organization of seminars and workshops;
- Provision of proficiency testing schemes in Albania;
- Technical consulting and auditing.



● **Fostering Excellence: Cultivating a Culture for Quality in Albanian Universities**

A sound understanding of the importance of quality and how to improve it is essential for sustainable change. This initiative focuses on cultivating a culture of quality within Albanian universities to ensure that future laboratory professionals are equipped with the necessary knowledge and skills to produce reliable results confidently. By involving investigators and professors in capacity-building efforts, we aim to raise awareness of the importance of quality standards and integrate this knowledge into graduate and master courses' syllabi. Through this collaborative approach, we can nurture a generation of skilled professionals committed to upholding rigorous quality standards





