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# INTRODUCING PRODUCT ENVIRONMENTAL FOOTPRINT IN AZERBAIJAN

For companies seeking entry into the EU market, the Single Market for Green Products (SMGP) initiative emphasizes the imperative to adhere to green product standards. To foster fair competition within the industry and enhance comparability and communication about environmental performance, the European Commission (EC) proposed the Product Environmental Footprint (PEF) method as the standard approach for evaluating the environmental impacts of products throughout their life cycles. Currently, the PEF method is increasingly used to support the reporting of environmental aspects in the forthcoming European Union (EU) legislation. For example, its application is mandatory in the adopted batteries regulation, and it has potential use in the adopted EU Taxonomy classifications.

To facilitate adherence to these regulations, the United Nations Industrial Development Organization (UNIDO), under the EU-funded “European Union for Environment” (EU4Environment) Action, is introducing the Product Environmental Footprint (PEF) as one of the instruments of the EU SMGP initiative for the EU’s Eastern Partnership (EaP) countries.

In the Republic of Azerbaijan (hereafter “Azerbaijan”), this action is facilitated by the Regional Environmental Centre for Caucasus (RECC).

## TECHNICAL BACKGROUND

### THE SINGLE MARKET FOR GREEN PRODUCTS (SMGP)

Introduced by the EC in 2013, the SMGP initiative recommends a set of principles for communicating the environmental performance of products and organizations. This enables producers to substantiate their claims of being environmental friendly. The initiative addresses the need to establish and apply a single environmental assessment approach for products traded across the EU.



SOURCE Advancing Resource Efficient and Cleaner Production (RECP) in “Bliss Group” LLC, Azerbaijan

### PRODUCT ENVIRONMENTAL FOOTPRINT (PEF)

PEF is an EU-recommended methodology that involves a multi-criteria measurement of the environmental performance of a good or service throughout its life cycle (from resource extraction to product manufacturing, and its end of life). It considers 16 environmental impact categories and provides concrete labelling rules that reduce freedom of interpretation while promoting stringent data quality and verification requirements. Product Environmental Footprint Category Rules (PEFCRs) are being developed for specific product groups. The objectives of PEFCRs are to provide consistent labelling rules for all products within a defined scope, to focus on the key environmental impacts within the product categories, and to facilitate product comparison. A PEFCR often includes the PEF results for one or several representative products, which serve as a benchmark within their product category or subcategory.

### LIFE CYCLE THINKING (LCT)

Life cycle thinking considers the environmental, economic, and social impacts of a product throughout its entire life cycle. This way, LCT aims to improve a product’s sustainability by identifying opportunities to enhance production processes.

### ECO-LABELLING

Eco-labelling is a voluntary initiative designed to confirm a product’s environmental quality. It encourages businesses to label their products and adopt environmentally friendly practices, ultimately providing dual benefits for both businesses and consumers.

Action implemented by:



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# THE READINESS OF AZERBAIJAN TO ACCESS THE SMGP

## CURRENT LEGISLATIVE FRAMEWORK

The main indicators for environmental quality standards are outlined in Article 31 of the Law of Azerbaijan on "Environmental Protection". Additionally, Article 6 of the Law on "Standardization" covers standards for product and service compliance with environmental requirements, determined by environmental certification and marking. This includes a complex system of environmental standards and regulations.

Although the Law on "Environmental Protection" mentions ecological certification, it does not define this concept, nor the concept of eco-labelling. The general concept and rules of product certification are outlined in the Law on "Accreditation in the Field of Conformity Assessment", while the Law on "Ecologically Clean Agriculture" addresses certification for ecologically clean agriculture. Voluntary ecological labelling standards have not been adopted in Azerbaijan, although there is legislation which defines a national trademark for labelling and displaying ecologically clean agricultural and food products.

While Azerbaijan has a legal basis for standardization, conformity assessment, and accreditation, further improvements in legislation are needed. Additional regulations, directly or indirectly related to the eco-agriculture industry include, but are not limited to:

- Article 20 of the Law on "Environmental Protection"
- Article 32 of the Law on "Environmental Protection"
- Draft Law 114 on "Technical Regulation"
- Article 1.1.7 of the Law on "Ecological Agriculture"
- Law on Foodstuffs (1999)
- Law No 523-VIQ on Food Safety
- Law on "Ecologically Clean Agriculture"
- Draft guidelines for the production, processing, labelling, and marketing of organically produced food products
- Law on the "Rational Use of Energy Resources and Energy Efficiency"
- Law on the approval of "Rules for Labelling Products related to Energy Consumption"
- Draft Law on the "Circulation of Packaging and Packaging Waste"



SOURCE Advancing Resource Efficient and Cleaner Production (RECP) in "Semsan" LLC, Azerbaijan

## ORGANIC CERTIFICATIONS

Despite the existing laws and bylaws, the organic certification system in Azerbaijan remains incomplete and is not fully implemented at the national level. This gap hinders the establishment of institutions, registries, and effective supervision, inspection, and certification bodies. Consequently, foreign control bodies (CBs) undertake all inspection and certification functions, strictly adhering to the standards required by importing countries, and operating independently from Azerbaijani authorities. This situation has resulted in Azerbaijan lacking its own accreditation body capable of issuing international environmental certificates. This is why accreditation organizations and laboratories in Azerbaijan must obtain international certificates from accreditation bodies in other countries.

## MAPPING THE KEY STAKEHOLDERS

Stakeholder engagement encourages open dialogue and fosters transparency, which is pivotal in marketing green products. Throughout the implementation cycles managed by producers and manufacturers, PEF practices and related areas bring together various stakeholders, including international organizations, public authorities, expert institutions, and end-users. Here, important national and international stakeholders include, but are not limited to:

- **International organizations:** UNIDO, OECD, UNECE, UN Environmental Program, Austrian Development Agency, the World Bank, World Trade Organization, UNDP, EBRD, and ABD.
- **Public authorities:** Ministry of Economy, Ministry of Ecology and Natural Resources, Ministry of Agriculture, Ministry of Energy, and Ministry of Digital Development and Transport
- **Other regional experts and institutions:** The European Chamber of Commerce of Azerbaijan (AZEUROCHAMBER), National Confederation of Entrepreneurs (Employers) Organizations, Food Safety Agency of the Republic of Azerbaijan (AQTA), the Azerbaijan Standardization Institute (AZSTAND), Small and Medium Business Development Agency, and Export and Investment Promotion Agency of the Republic of Azerbaijan (AZPROMO).
- **Life cycle assessment (LCA)/PEF experts:** Ruzgar Ecological Society, Eco-Energy LLC, ARPA Consulting LLC, Iqlim LTD LLC, Sustainera LLC, Institute of Economy, Ganja State University, Khazar University, Union of Independent Consumers, Azerbaijan Technical University, and Sustainable Development Society.

This stakeholder overview presents potential opportunities which could facilitate synergies for implementing PEF on a national scale in Azerbaijan.

# NATIONAL MARKET TRENDS FAVORING THE SMGP INITIATIVE

## GROWING NATIONAL TRENDS FOR ORGANIC CERTIFICATION

The Azerbaijani retail market is valued at approximately 3 million EUR. Currently, Azerbaijan has 305 producers, 50 processors, and 50 importers registered by foreign certification bodies operating in the country. The predominant, organically produced crops are annual or permanent plants, with cereals leading in certified land area, although fruits comprise a larger share of total production. Honey stands out as the sole certified organic animal product, with 932 organic beehives recorded in 2014. Major crops were certified as organic between 2012 and 2014, including subtropical and temperate fruits, vegetables, oil seeds, and pulses. In 2014 and 2015, the certified organic land area expanded by 14,299 hectares, witnessing a significant growth in fruits and vegetables. As of 2015, Azerbaijan also reported 123 hectares of certified aquaculture and forest areas, while the number of organic beehives remained stable at 932. This data underscores a promising surge in the demand for organic certification, a trend that could be significantly bolstered by implementing PEF assessments. Demonstrating robust environmental credentials, particularly within the dynamic EU Single Market, inherently adds value to businesses, ensuring strong prospects and strategic soundness.

## NEED FOR RAISING AWARENESS OF GREEN PRODUCTS

In 2020, the Ecological Footprint Awareness Survey (EFAS) was conducted in Azerbaijan, examining food, transportation, housing, energy, waste, and water consumption. The findings suggest that cultural factors discourage food waste, and there is an increasing awareness among the younger generation regarding sustainable food sources. However, awareness of sustainable water use remains low, likely influenced by the perception of abundant water reserves. Energy awareness is also lacking, partly due to the availability of relatively inexpensive energy. Overall, participants demonstrated moderate awareness concerning their ecological footprint related to food and transportation.



This underscores the importance of educating consumers about the advantages of environmentally friendly products and of enabling them to make informed purchasing decisions. By comparing the performance of similar products or services, consumers can develop trust in new brands and diversify their spending habits. Hence, implementing PEF at a national level would significantly bolster these efforts.

## THE BENEFITS OF APPLYING THE PEF METHODOLOGY FOR EXPORT-ORIENTED COMPANIES

PEF empowers enterprises to enhance the sustainability of their supply chains and product life cycle. Conducting a PEF study will offer valuable insights into the most impactful ingredients, processing steps, or life cycle stages of a product, making it an ideal starting point for mitigating negative environmental impacts. The potential benefits of applying the PEF methodology include:



Ability to benchmark products within a specific category (when a PEFCR is present)



Improved reputation and customer loyalty



Cost reduction through process improvement



Effectively meeting client demands



Increased employee involvement



Extended sale opportunities



Potential for industrial synergies



Meeting sustainability requirements in bidding processes



Compliance with EU environmental standards

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# THE SMGP READINESS ROADMAP FOR AZERBAIJAN

The SMGP initiative aims to provide clear, reliable, and comparable information on the environmental performance of products and organizations by establishing a unified environmental assessment approach for products entering the EU market. The below SMGP readiness roadmap outlines the guided recommendations, actionable opportunities, and milestones suggested for Azerbaijan to achieve readiness to access the SMGP. This preparation will enable the trading of environmentally friendly products across the EU.

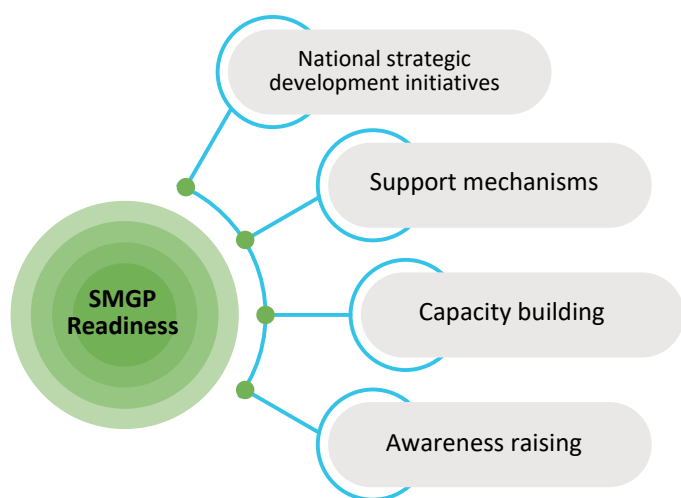


FIGURE 1 The SMGP readiness building blocks

## NATIONAL STRATEGIC DEVELOPEMENT INITIATIVES

**Legislative changes:** Azerbaijan has a solid legal foundation for standardization, conformity assessment, and accreditation, but there are still notable gaps in the environmental labelling legislation.

Further improvements in standardization could include:

- Adoption of national standards aligned with general ISO standards
- Implementation of ISO 14000 standards
- Development and adoption of standards in national ecological, food safety, health, and environmental protection (based on ISO standards)

In the field of accreditation:

- Establishment of accreditation laboratories and organizations to asses product and service conformity according to ISO 14000 standards, and accreditation in bodies of other countries (such as TURKAK), until Azerbaijan's own accreditation system is developed
- Establishment of organizations and laboratories specializing in ecologically sustainable agriculture

In the field of certification:

- Establishment of national organic certification bodies
- Implementation of mandatory and voluntary certifications for human health and environmental protection

**Green public procurement:** This activity plays a key role in promoting PEF studies by encouraging the use of life cycle assessment practices in evaluating and selecting environmentally sustainable products and services. The successful implementation of green public procurement requires careful planning (including defining the scope, setting priorities and targets, providing staff training, and monitoring performance). Drawing on the OECD's experience with Sustainable Public Procurement (SPP) under the EaP GREEN programme (2017) can provide valuable insights to enhance the environmental and social performance of products, alongside market-driven tools, such as eco-labelling. Hence, Azerbaijan can expedite the adoption of PEF assessments to improve product sustainability, stimulate the demand and supply of green products, and empower consumers to make informed choices. The Azerbaijani Government can also leverage lessons from the SPP initiatives and closely collaborate with international organizations to effectively implement PEF within the SPP framework. Such collaborations would foster an increased demand for sustainable goods and enhance the environmental performance of publicly-procured products and services.

**Monitoring and evaluation systems:** To ensure the successful implementation of policies and strategy initiatives, establishing a strong monitoring and evaluation system is crucial. Such a system should involve an executive body to engage stakeholders from key industrial clusters. Moreover, it is essential to identify national product categories that can emerge as significant players in the EU market, and to lead the development PEFCRs for these product groups and ensure consistent monitoring. This initiative can enhance Azerbaijan's competitiveness in the EU market and prepare the industries for the upcoming EU developments. Furthermore, it is necessary to develop local and geographically specific data in order to conduct PEF studies more effectively. For example, data should cover the country's electricity mix and other relevant technologies or activities for which background information is already available.



SOURCE Advancing Resource Efficient and Cleaner Production (RECP) in "Bliss Group" LLC, Azerbaijan

## CAPACITY BUILDING

Enhancing the availability of local PEF experts is crucial and requires the implementation of targeted training programmes. Prior experience with Life Cycle Assessment (LCA) and proficiency in modeling with software like SimaPro are essential prerequisites for conducting PEF studies. Since PEF methodology builds upon advanced LCA principles, it is imperative for experts to have a solid foundation before applying these principles practically.

Specifically, PEF experts must possess specialized skills in constructing Environmental Footprint (EF) models using tools such as SimaPro or similar platforms. This involves a deep understanding of the software's functionalities and complexities, particularly in developing PEF models. Effective training programmes are necessary to ensure PEF experts are proficient in utilizing these critical software tools and accessing databases containing industry-specific EF data required for ecological footprint assessments.

## SUPPORT MECHANISMS

Creating synergies among existing support mechanisms is crucial to foster favorable conditions for the successful introduction of PEF. These synergies involve knowledge creation, sharing experience, and building an expert base, all essential for generating significant impact across stakeholder groups. Furthermore, financial incentives aimed at promoting the development of eco-labelling have the potential to create favorable conditions for SMGP readiness in the country.

In this regard, the following actions are suggested:

- Ensuring a close cooperation between Government institutions, business support organizations, and financing institutions to integrate unified eco-labelling standards and resource efficiency models into current business practices.
- Developing and evaluating the feasibility of environmental tax incentives (such as reduced tax schemes) for businesses prioritizing resource efficiency, emissions reduction, and the adoption of green technologies.
- Establishing support programmes in the form of subsidies, co-financing, advisory, or consultancy services to assist organizations in establishing and adopting PEF practices.



SOURCE Advancing Resource Efficient and Cleaner Production (RECP) in "Gizil Eller" LLC, Azerbaijan



## AWARENESS RAISING

An effective awareness-raising campaign requires meticulous planning and the execution of various activities aimed at engaging target audiences and creating lasting impact. Azerbaijan has taken a crucial first step by organizing an introductory workshop on Sustainable Public Procurement and Eco-labelling in December 2022.

The workshop aimed to familiarize Azerbaijani enterprises with the concept and potential benefits of the PEF methodology for exporting products to the EU market. To build on this initiative, additional events should be organized with specific objectives for each stakeholder group:

- **Government officials and policymakers:** Increase awareness and garner support for decision-making reforms among relevant policymakers.
- **Export-oriented companies:** Foster awareness, collaboration, and synergies among companies, demonstrating the benefits of eco-labelling through PEF for products exported to the EU market.
- **Eco-labelling and PEF experts:** Enhance awareness about the types of certification and strengthen local capacity.

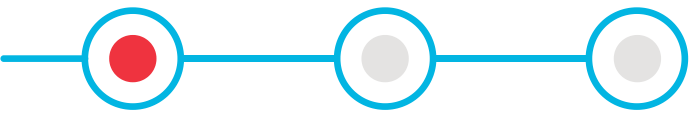
Supplementary activities could also include:

- Conducting baseline studies to understand the current attitudes and behaviors of the target audiences towards eco-labelling and using this information to craft impactful messaging.
- Collaborating on studies with European environmental labelling schemes.
- Coordinating with national policymakers and Government institutions to develop an awareness campaign that effectively promotes the benefits of PEF.

# FUTURE OUTLOOK

Based on the recommendations outlined above, the proposed stages of SMGP readiness present the potential development scenarios for Azerbaijan to establish an ecosystem for successfully entering the EU SMGP.

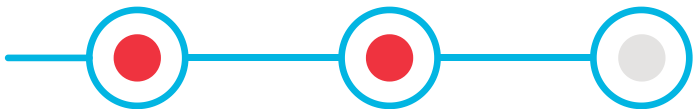
Ultimately, integrating environmental protection, resource efficiency, and energy efficiency across all sectors of the economy is crucial. This entails preparing the country for implementing PEF, and subsequently, integrating PEF into policy, potentially through PEFCRs. The research underscores the importance of preparing the industry for the forthcoming regulations by implementing PEF on a national level. The stages proposed below can create synergies through coordinated actions and effective collaborations between stakeholders.



## INITIATING STAGE

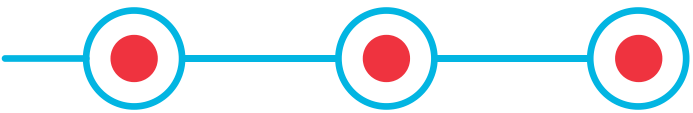
This stage represents a think-tank-empowered ecosystem, focused on effective awareness-raising and capacity-building initiatives. Within it, PEF considerations are integrated into a wide range of public policy and strategy documents, although specific plans for dedicated regulations are currently absent. The designated national body pursues international recognition and enhances internal capacities. NGOs and think tanks play a crucial role in preparing the country for PEF practices, with the private sector demonstrating awareness and interest in initiating these efforts.

During this stage, it is important to explore the consumers' interests in purchasing products deemed environmentally friendly, and their willingness to pay a premium price for such products. Additionally, efforts should focus on defining the concept and criteria of environmentally suitable products and establishing legislative definitions and criteria for "eco-labelling".



## FACILITATING STAGE

The facilitation stage represents a synergetic ecosystem that fosters an enabling environment for the application of PEF methodology in Azerbaijan. PEF considerations are explicitly incorporated into public policy and strategy documents, supported by dedicated regulations. The designated national body achieves international recognition, with the Government taking a coordinating role by leading state-level support programmes, providing financial incentives, and promoting the use of Information Technology (IT) tools for data collection and analysis. NGOs and other think tanks serve as experts, contributing with valuable insights, while the private sector demonstrates the successful business cases in implementing PEF practices, thereby enhancing the country's presence in export markets.



## CONSOLIDATING STAGE

The consolidation stage represents the mature level when Azerbaijan's PEF system evolves into a comprehensive and well-functioning ecosystem with strong quality infrastructure supporting the implementation of the PEF methodology. This includes a nation-wide application of PEF to ensure adherence to environmental standards. Additionally, PEF is integrated into eco-design proposals, and all labelling in the country aligns with the EU Green Claims Proposal. This way, the designated national body gains international recognition, and local certification bodies, compliant with EU eco-labelling protocols, do not only certify Azerbaijani companies, but also engage with clients, worldwide. The Government closely collaborates with NGOs and partners, aligning policies and development priorities with PEF practices. The private sector demonstrates a robust commitment to sustainability by establishing a strong PEF practice, achieving recognition through PEF labelling.

### About EU4Environment

The European Union (EU) funded EU4Environment Action aims to help the EU's Eastern Partnership countries preserve their natural capital and increase people's environmental well-being. It does so by supporting environment-related action, demonstrating and unlocking opportunities for greener growth, and setting mechanisms for better management of environmental risks and impacts. EU4Environment is implemented by five partner organizations: OECD, UNECE, UNEP, UNIDO, and the World Bank between 2019-2024, with a budget of EUR 20 million.

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