

POLICY BRIEF

Improving Food Safety to Enhance a Country's Social and Economic Well-Being



For Turkmenistan, food safety concerns relate to problems in quality management systems for domestic produce as well as for imports. Photo credit: ADB.

Turkmenistan is adopting international food safety standards to safeguard public health and to boost the trade of agro-food products.

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Introduction

Foodborne diseases are reported in different parts of the world almost daily. Every year, foodborne illnesses affect 600 million people worldwide and cause the premature death of 420,000 people. The resulting loss in productivity is estimated at \$95 billion in low- and middle-income countries alone. With the expansion of agro-food trade, contaminated food originating from one country have affected multiple countries. Trepidation over foodborne diseases has been heightened with high-profile reporting of food poisoning scares.

Turkmenistan has taken steps to ensure food safety is a public health priority. Effective food safety and quality management systems are key to safeguarding the health and well-being of people. It is a salient catalyst to achieving the government's objective to promote the agriculture sector and diversify Turkmenistan's economy and increase trade within the region and globally. Major agro-food crops

produced in the country include wheat, meat and milk, fruits (i.e., citrus fruits, melons, and pomegranates), dates, figs and olives, and sugarcane. Most of these produce contribute to the food security of Turkmenistan, which is a net agro-food importer. During the period 2011 to 2016, the agro-food imports averaged at \$446 million annually while average exports for the same years amounted to \$283 million.[1] For Turkmenistan, food safety concerns relate to problems in quality management systems for domestic produce as well as for imports.

Competing Food Safety Regulations

The World Trade Organization (WTO) oversees the implementation of the international agreements related to trade in agriculture products. Issues related to food safety and animal and plant health are covered under the WTO Sanitary and Phytosanitary (SPS) Agreement. The overall aim is to establish a fairer trading system that will increase market access and improve the livelihoods of farmers around the world without compromising food safety. Its key responsibility is to monitor how WTO members are complying with their commitments. The Codex Alimentarius Commission (Codex) is the standard setting agency that owns and develops international food safety standards. It uses science-based evidences in setting standards and the WTO uses it in resolving international trade disputes. [2] The WTO SPS Agreement on agriculture commodities facilitates the implementation of Codex guidelines for monitoring of food products subject to border controls and related activities. It applies to all food commodities and product categories, deals with hygienic practices, labelling, additives, contaminants, inspection and certification, nutrition, and residues of veterinary drugs and pesticides.



Safe level of pesticide use is fundamentally important to ensure food safety. Photo credit: ADB.

The major obstacle to implementing international standards in Turkmenistan is the continued use of the State Standards (GOST)[3] inherited from the former Soviet Union. This standard is not compliant with the Codex standards and guidelines that the WTO use for food safety measures. However, with the Russian Federation's accession to the WTO in 2012, it is obliged to replace its GOST standards with

WTO-compliant standards. This, in turn, forces other countries of the former Soviet Union to adopt the international standards as well, to prevent loss of access to the Russian Federation market.

Furthermore, the Turkmenistan President issued Resolution No. 13662, approving the National Strategy 2014–2020, which includes developing approaches to strengthen food control management systems. It recommended that international guidelines be followed. As a Codex member, the country has obligations to implement international food safety standards.

Policy Solutions

Turkmenistan has a comprehensive food safety regulatory framework, which includes laws, regulations and policy measures pertaining to food safety. The Food Safety Law, the Sanitary Code, and the Law on administrative liability for foodstuffs are the top tiers of regulations. The Act on Food Safety and Quality adopted in 2014 is a framework that provides primary directions for the food safety state policy. The law partially provides for implementation of modern principles of food safety, such as risk analysis, identification and management of critical control points in the food chain, and consumer rights. It provides a sound framework for building the food safety management system and partially fulfills requirements for harmonization with the Codex.

Major issues of noncompliance of the national food safety management system with the international food safety standards pertain to (i) lack of risk-based food safety management and inspection systems, (ii) separate and different terminologies and definitions of standards compared with Codex definitions and terminologies; (iii) lack of procedures for traceability and adoption of preventive measures, such as hazard analysis and critical control points (HACCP) and food safety emergency response plan; and (iv) limited alignment of the food safety national standards, guides, and codes with Codex standards, guidelines, and codes.

These are the core areas that need to be updated for the harmonization of regulatory standards:

Mandate HACCP for preventive food safety management. The HACCP combined with basic hygiene pre-requisites are fundamental for food safety management in the Codex Alimentarius Commission. HACCP involves analysis and control of biological, chemical and physical hazards from raw material production, procurement, and handling to manufacturing, distribution, and consumption of the final product.

Harmonize terminologies and definitions in the Turkmenistan Food Law with the Codex

terminologies. For international applications, it is important to harmonize terminologies and definitions with those of the Codex standards, guidelines, and codes of practices. For example, Turkmenistan Law uses the term “hazard” and “risk” interchangeably. However, there is clear distinction between these terms in terms of food safety management. In Codex texts, “hazard” is defined as a biological, chemical, or physical agent in, or condition of, food with the potential to cause an adverse health effect. “Risk” is defined as a function of the probability of an adverse health effect and the severity of that effect, consequential to a hazard(s) in food. Food safety measures have to be risk-based, and therefore proper definition of terminologies in regulation is important.

Adopt risk analysis and assessment in food safety management. As defined above, risk is a measure of the likelihood of a hazard causing harm and how much harm it could do. All activities related to food production and handling involve some hazards. By understanding how to reduce or eliminate food hazards, it is then possible to set up food safety controls. Risk assessments can be used to prioritize risk management measures. Currently, there is no reference to risk analysis in food safety law in Turkmenistan.

Mandate traceability in food safety law. The Codex defines traceability as the ability to track food from the production to the processing, distribution, and marketing stages. With traceability, it is possible to locate a product at any stage within the supply chain. Traceability should be implemented in such a way that each step in the supply chain can be identified.

Make food safety inspections risk-based. Risk-based food inspection provides opportunities to build systems to prevent food safety events by identifying risk factors and assessing the effectiveness of control measures that are in place. It is outcome-oriented and focuses on the examination of processes rather than final products.

Develop a food safety emergency plan. Despite taking all preventive measures, there can still be failures in food safety control that could lead to an emergency-like situation. Turkmenistan regulation does not outline the measures that can be taken in situations where there is a food safety emergency. For a country like Turkmenistan that depends on food imports, harmonized standards with the Codex in dealing with emergency situations are important.

Harmonize standards in the Turkmenstandarlary, the national standard-setting agency, with the Codex. The agency uses GOST standards. In case of a trade dispute because of food safety issues, the WTO would support countries adopting and implementing Codex standards.

Accreditation of laboratories. The country's primary laboratory is the Ashgabat State Central Laboratory under the Ministry of Health and Medical Industry. There is limited capacity for conducting tests for a larger scope of products. There is no evidence that the Codex guidelines for sampling are applied. For the international acceptance of laboratory analysis results, it is important that the laboratories are accredited as per ISO 17025:2015. There are no such accredited laboratories in Turkmenistan. The country does not appear to have the capacity to conduct tests for the full range of microbiological and chemical food safety parameters based on international standards.

Policy implementation and outcome

With support from the Asian Development Bank (ADB), the government has started establishing quality food management systems that are aligned to international food safety standards. Improved food control management helps achieve targets associated with two of the 17 Sustainable Development Goals (SDGs): Good Health and Well-being (SDG 3) and Responsible Consumption and Production (SDG 12), such as reduced risk and improved management of national and global health. The technical assistance project is expected to also reduce food waste at the retail and consumer levels along food supply chains. These would, in turn, contribute to reducing deaths and illnesses from hazardous chemicals, soil pollution, and contaminants.

The Ministry of the Health and Medical Industry, which is mandated to manage food control measures to ensure food safety, is keen to revise and adopt measures on the identified gaps and suggested amendments to align national food safety regulations to international food safety requirements.

There is a need to strengthen the capacity of the Ministries of Health and Medical Industry, Agriculture, and Commerce and Industries to manage reforms in national food control systems. Priority areas include: (i) harmonization of food safety laws, regulations, policies and standards, (ii) food safety inspection and certification systems that can verify the compliance of actors in supply chains with regulations and standards; and (iii) laboratories that can analyze food at different segments of the supply chain to check whether they meet quality and safety standards. These suggestions are under consideration for adoption and are likely to provide clarity when amending national regulations as the country works toward joining the WTO. ADB has two ongoing technical assistance projects to facilitate these endeavors.^[4]

The 2-year food safety project, which was completed in 2018, was ADB's first technical assistance in agriculture in Turkmenistan. Nurturing the partnership with the government based on mutual trust and respect became essential components of this project, especially when venturing into a new sector and starting a new working relationship. The support for food safety in the agricultural sector through this project has contributed to strengthening ADB's partnership with the government during its implementation, as it has taken time to build the needed trust for government to grant the project team full access to their laboratory facilities and its privileged information. Such mutual trust and respect have led the government to request for continuous support with investment projects.

[1] Food and Agriculture Organization of the United Nations (FAO) database links.

[2] In 1995, the WTO Agreement on the Application of SPS Measures ("the SPS Agreement") became the internationally recognized set of SPS measures for ensuring the safety of food and agricultural products, regardless of whether or not a particular country is a WTO member. Thus, the SPS Agreement is the de facto normative framework for administering border controls on goods that pose threats to human, animal, or plant life. The Codex Alimentarius (Codex), the International Plant Protection Convention (IPPC), and the World Organization for Animal Health (OIE) are all aligned with the SPS Agreement.

[3] GOST standards were originally developed by the government of the former Soviet Union as part of its national standardization strategy. The word GOST is an acronym for "gosudarstvennyy standard" (Russian) which means state standard.

[4] ADB. 2016. Strengthening International Food Safety Standards in Agricultural Value Chains in the Central Asia Regional Economic Cooperation Member Countries. Manila (KSTA TA REG: 50217-001); and ADB. 2018. Modernizing Sanitary and Phytosanitary Measures to Facilitate Trade. Manila (KSTA REG: 49190-001).

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Samjhana Shrestha

Senior Economist, Agriculture, Sustainable Development and Climate Change Department, Asian Development Bank

Samjhana Shrestha specializes in the use of digital solutions and food safety to improve food security and strengthen agricultural value chains. She has over 20 years of experience in international development. Prior to ADB, she worked in various capacities at national, international, and civil society organizations. She has two post-graduate degrees in Agriculture Economics and Economics from the University of New England, Australia.

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