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Sanitary and Phytosanitary (SPS) Measures and International Regulatory Bodies to Ensure Safety of Livestock Products

Ambesh Pandey[1], Chaple Pooja M.[2], Mohini Tripathi[3], Shipra Tiwari[4], Chirag Singh[5], Meena Goswami[5], Vikas Pathak[6]

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Abstract

To guarantee food safety and safeguard the health of people, animals, and plants, sanitary and phytosanitary (SPS) precautions are crucial. They concentrate on mitigating the risks associated with illnesses, pests, pollutants, and pathogens. SPS methods include phytosanitary measures like plant quarantine, pest risk analysis, and the creation of pest-free areas, as well as sanitary practices like Good Manufacturing Practices (GMP), Hazard Analysis and Critical Control Points (HACCP), and food hygiene laws. Following the Uruguay Round of GATT (General Agreement on Tariffs & Trade) negotiations, the World Trade Organization (WTO) created the SPS Agreement in 1995. It offers a framework for standardizing international trade standards while preserving food safety and public health. Members of this agreement, including India, are required to adhere to SPS guidelines and take requests for agricultural imports into consideration. Harmonization, risk assessment, openness, and regional conditions are the main tenets of SPS measures. The International Plant Protection Convention (IPPC), the Office International des Epizooties (OIE), and the Codex Alimentarius Commission (CAC) are essential in setting international standards for plant protection, animal health, and food quality. Safe commerce, economic growth, and biodiversity protection are all aided by the effective application of SPS policies.

Kewwords: Good Manufacturing Practices, sanitary and phytosanitary (SPS), international bodies, HACCP, food safety.

INTRODUCTION

The Department of Animal Husbandry and Dairying (DAHD) and associated government reports provide the latest data on India's meat output, showing a consistent rise in production. In 2022–2023, India produced over 9.77 million tonnes of meat, marking a 5% increase from the previous year. Telangana, Maharashtra, Andhra Pradesh, West Bengal, and Uttar Pradesh were the largest contributors. This growth is heavily reliant on the livestock industry, with cattle and buffaloes playing a central role. Water buffaloes are the primary source of beef, and according to Agri Exchange, the total number of animals slaughtered in 2024 is projected to reach 40.7 million, up slightly

Author's Affiliation: [1-6]Department of Livestock Products Technology, College of Veterinary Science and A.H., DUVASU, Mathura 281001,Uttar Pradesh, India.

Corresponding Author: Meena Goswami Awasthi, Associate Professor and Incharge, Department of Livestock Products Technology, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura 281001,Uttar Pradesh, India.

E-mail: dr.goswami2008@yahoo.co.in

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from 39.96 million in 2023. Additionally, the rising demand for carabeef, both domestically and internationally, highlights the industry's growing significance.

India's dairy sector also continues to expand, with a total milk output of 230.58 million tonnes in 2022–2023, a 3.83% increase over the previous year. Livestock contributions are led by cows (119.68 million tonnes), followed by buffaloes (103.30 million tonnes) and goats (7.6 million tonnes). States with robust dairy industries, such as Uttar Pradesh, Rajasthan, Madhya Pradesh, and Maharashtra, dominate production. For instance, Rajasthan produced over 33 million tonnes, Uttar Pradesh approximately 30 million tonnes, Madhya Pradesh more than 20 million tonnes, and Maharashtra over 15 million tonnes. Other major contributors include Gujarat (17.3 million tonnes) and Punjab (14.3 million tonnes).

Similarly, egg production has shown significant growth, with 138.38 billion eggs produced in 2022–2023, a 6.77% increase from the previous year, making India the third-largest egg producer globally. This production comprises backyard poultry (20.20 billion eggs) and commercial poultry (118.16 billion eggs), with the latter contributing 85.4% of the total. The leading states in egg production are Andhra Pradesh (20.13%), Tamil Nadu (15.58%), Telangana (12.77%), West Bengal (9.93%), and Karnataka (6.51%), collectively accounting for around 65% of India's output.

In this context of rising agricultural productivity, sanitary and phytosanitary measures become essential for safeguarding public, animal, and plant health. These measures address risks associated with pests, diseases, and contaminants, ensuring that agricultural products remain safe for consumers and ecosystems alike. With agricultural products increasingly moving across borders, such measures are critical for maintaining quality and safety standards, facilitating global trade, and protecting natural resources.

SPS measures are particularly important in mitigating the impacts of international trade on local agriculture and public health. For example, the introduction of harmful pests or diseases can devastate crops, disrupt livestock production, and impose economic burdens. To prevent such risks, regulatory frameworks are established to manage food production and agricultural trade at both domestic and international levels. The principles guiding SPS measures emphasize the need for scientific evidence, transparency, and harmonized global standards. They ensure that health and safety concerns do not become disguised barriers to trade. This dual role of SPS measures—protecting health and facilitating commerce—is a cornerstone of international trade agreements like the WTO's SPS Agreement. India, as a key member of the WTO, actively implements SPS standards to protect its agricultural sector while leveraging new trade opportunities. This balance between safety and trade is essential in a world where economic growth and consumer trust rely heavily on the quality and safety of food products.

Sanitary and phytosanitary measures (SPS)

According to the SPS Agreement, to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment, or spread of pests, disease-carrying organisms, or disease-causing organisms. To protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins, or disease-causing organisms in food, beverages, or feedstuffs. To protect human life or health within the territory of the member from risk arising from diseases carried by animals, plants, or products.

Sanitary and phytosanitary (SPS) measures are crucial for ensuring food safety and protecting human, animal, and plant health. Here are some common SPS measures:

- **Sanitary Measures:** These measures focus on preventing the introduction and spread of harmful pathogens, chemicals, or other contaminants in food products. Examples include:
    - Good Manufacturing Practices (GMP): These are guidelines and procedures that ensure food is produced, processed, and handled in a safe and hygienic manner.
    - Hazard Analysis and Critical Control Points (HACCP): A systematic preventive approach to food safety that identifies, evaluates, and controls hazards throughout the food production process.
    - Food Hygiene Practices: Proper sanitation practices in food handling, storage, transportation, and preparation to prevent contamination.
    - Pest Control: Measures to prevent infestation by pests that can contaminate food products.
    - Personal Hygiene: Regulations regarding cleanliness and hygiene of food handlers to prevent contamination.

- ♦ Phytosanitary Measures: These measures are designed to protect plant health and prevent the introduction and spread of pests and diseases that can harm crops. Examples include:

- **Plant Quarantine:** Inspection and regulation of imported plants and plant products to prevent the introduction of harmful pests and diseases.
- **Pest Risk Analysis (PRA):** Evaluation of the risks associated with the introduction and spread of pests, including assessment of pathways and potential impacts.
- **Pest Control:** Measures to control and manage pests through various methods such as biological control, chemical treatments, and cultural practices.
- **Certification and Inspection:** Verification of compliance with phytosanitary regulations through inspection, certification, and issuance of phytosanitary certificates for export.
- **Regulatory Frameworks:** Establishing and enforcing regulatory frameworks to ensure compliance with sanitary and phytosanitary standards. This includes setting standards, conducting inspections, and implementing enforcement measures for non-compliance.
- **Risk Assessment and Management:** Continuous assessment of risks associated with food safety and plant health, and implementation of appropriate risk management measures to mitigate these risks.

International Standards

Adherence to international standards and guidelines, such as those developed by the World Health Organization (WHO), the Food and Agriculture Organization (FAO), and the International Plant Protection Convention (IPPC), to facilitate trade while ensuring food safety and plant health. The sanitary and phytosanitary agreement (SPS) is an agreement that sets out the basic rules to ensure food safety, and animal and plant health standards for international trade.

In response to international trade, several forums and conventions were held from time to time and finally after the successful conclusion of the Uruguay round (1986-94) of the trade negotiations under general agreement on tariffs and trade (GATT), world trade organization (WTO) was formed in 1995.

SPS agreement and others contained in the Final Act, along with the General Agreement on Tariffs and Trade as amended (GATT 1994), are part of the treaty which established the World Trade Organization (WTO). The WTO superseded the GATT as the umbrella organization for international trade. At present, there are 164 members of the WTO. As a member country, India is obliged to uphold WTO rules and obligations including the Agreement on the Application of Sanitary (animal) and Phytosanitary (plant) Measures. India, under its commitments to the SPS agreement, must consider all import requests from other countries concerning agricultural products. Since the SPS agreement came into force in 1995, India has gained access to new markets for animal and plant products and foods. To harmonize international trade, WTO has drafted 23 Agreements. The most related to Agriculture research and developments are:

1. Sanitary and Phytosanitary Measures (SPS), Technical Barrier to Trade (TBT)
2. Trade-Related Aspects of Intellectual Property Rights (TRIPS)
3. Antidumping

What SPS agreement deals:

- All relevant law
- Regulations requirements
- Procedures and production methods
- Testing
- Inspection
- Certifications and approval procedures
- Quarantine treatment
- Transportation of animals or plants with materials for their survival during transport
- Method of risk assessment
- Sampling procedures — Packaging and labeling requirements related to foodstuffs.
- Key Principles of SPS Measures:
- Harmonization
- Risk assessment
- The appropriate level of protection
- Regional conditions
- Transparency

Harmonization means: Establishment, Recognition and Application of common SPS measure by different countries

Three organizations responsible for harmonization and standard settings:

Codex Alimentarius Commission (CAC)

The organization is working since 1962 for establishing food quality and safety standards to achieve the provisions of the SPS and TBT Agreement. The Codex Alimentarius meets every two years. The delegations consist of governmental and non-governmental officials but can also include industry or consumer representatives and academic experts. Non-governmental organizations (NGOs) can obtain "observer" status for their participation.

Office International Des Epizooties (OIE)

The OIE is the world organization for animal health recognized by the SPS Agreement founded on the 25th.of January 1924, headquarters at Paris-France

The OIE has three main objectives:

a. To inform members of the occurrence and course of diseases throughout the world and of means of controlling these diseases.
b. To coordinate international research devoted to the surveillance and control of animal diseases.
c. To promote the harmonization of health regulations for trade in animals and animal products among members.

International Plant Protection Convention (IPPC)

IPPC is a multilateral treaty for international cooperation in plant protection. The convention makes the provision for the application of measures by Govts. To protect their plant resources from harmful (phytosanitary measures) which may be introduced through international trade. The SPS Agreement identifies the IPPC as the organization providing international standards. IPPC work includes standards on pest risk analysis, requirements for the establishment of pest risk analysis, and requirements for the establishment of pest-free areas.

Pest or disease free area means: An area, whether all a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest or disease does not occur.

Area of low pest or disease prevalence: An area, whether all a country, of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest or disease occurs at a low level.

Effective implementation of these sanitary and phytosanitary measures is essential for safeguarding public health, ensuring the safety and quality of food products, and facilitating international trade

CONCLUSION

Sanitary and phytosanitary (SPS) practices are essential for protecting the health of people, animals, and plants while promoting global trade. Through strict laws and international cooperation, these measures protect natural resources, stop the spread of illnesses and pests, and guarantee the safety of food items. The World Trade Organization's (WTO) SPS Agreement offers a framework for putting these policies into effect and coordinating them across participating nations. To strike a balance between trade facilitation and health protection, it places a strong emphasis on concepts like risk assessment, transparency, and harmonization. The International Plant Protection Convention (IPPC), the Office International des Epizooties (OIE), and the Codex Alimentarius Commission (CAC) are essential for establishing standards and guaranteeing the efficient implementation of SPS measures around the world. As a WTO member, India aggressively upholds its SPS obligations, gaining access to new markets while guaranteeing adherence to global norms. By lowering trade obstacles and promoting confidence among trading partners, SPS policies not only improve food safety but also fortify trade ties and economic growth.

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