
UNIT 15 NATIONAL AGENCIES FOR IMPLEMENTATION OF INTERNATIONAL FOOD LAWS & STANDARDS

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15.0 OBJECTIVES

After reading this Unit you should be able to:

- (i) State the role of National Agencies for implementation of International Food Laws and Standards;

- (ii) Explain in detail the activities of these Agencies in strengthening National Food Legislation;
- (iii) Describe the valuable contribution these Agencies continue to provide in commercial and international food trade;
- (iv) Understand the meaning of commonly used terminologies related to food safety e.g. SPS Measures of WTO, Health Hazard, Toxicants, Pollutants, Pesticides, Genetically Engineered or Genetically Modified Foods etc.
- (v) Discuss the working System of these national agencies in respect to deal with the food business particularly international food trade;
- (vi) Acquaint with the implications of WTO Agreement on Technical Barrier to Trade and Agreement on Sanitary and Phytosanitary Measures, so vital for Indian Food Traders to take note of, for its compliance.

15.1 INTRODUCTION

Adequate, safe and wholesome food is a vital element for the achievement of acceptable standards of living. There is increasingly worldwide concern about food safety and animal and plant health. The WTO Agreement on Sanitary and Phytosanitary Measures sets out the basic rules for food safety and animal and plant health regulations. It applies to all such measures which may, directly or indirectly, affect international trade. All countries have the right to adopt or enforce necessary measures to protect human, animal or plant life or health, subject to the requirement that these measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between Members where the same conditions prevail. Such measures are required to be developed and applied in accordance with the provisions of this Agreement. The Agreement desires the use of harmonized Sanitary and Phytosanitary Measures between Members on the basis of international standards, guidelines and recommendations developed by the relevant international organisations, including Codex Alimentarius Commission, the International Office of Epizootics, and the relevant international and regional organisations operating within the framework of the International Plant Protection Convention. The major objectives of the work of Codex Alimentarius Commission [CAC] are to protect the health of the consumers and ensure fair practices in the food trade as well as to facilitate international trade in food. The National Codex Contact Point (NCCP) in the Ministry of Health and Family Welfare acts as the liaison office to coordinate with the other concerned government departments (at central and state level), food

industry, consumers, traders, research and development Institutions to ensure fulfill this objective. Article 7 of the Agreement requires the members to provide information on Sanitary or Phytosanitary requirements in the country. For this purpose each Member is required to ensure that one Enquiry Point exists which is responsible for answering all reasonable questions from interested Members as well as to provide relevant documents relating to SPS Regulations adopted or proposed, etc.

In international trade, technical barriers to trade generally result from the preparation, adoption and application of different technical regulations and conformity assessment procedures. To help solve this problem, World Trade Organization (WTO) has laid certain norms which are provided in the Agreement on Technical Barriers to Trade (TBT). Article 10 of the Agreement provides for each member to ensure that an enquiry point exists in the country which is able to answer all reasonable enquiries from other members as well as to provide relevant documents relating to technical regulations, standards, conformity procedures, etc.

The broad objectives of the Ministry of Environment and Forests (MOEF) include: Protection of the environment, Environmental health and Bio-diversity Conservation. The first international 'Protocol' on Biosafety, for safe transfer, handling and use of 'Living Modified Organisms [LMO]'; was negotiated under the aegis of the 'Convention on Biological Diversity.' The Protocol seeks to protect biological diversity from the potential risks posed by LMO resulting from modern bio-technology [e.g. Genetically Modified or GM Foods]. As per the specified Rules notified by MOEF; "Food stuffs, ingredients in foodstuffs and additives containing or consisting of genetically engineered organisms or cells, shall not be produced, sold, imported or used except with the approval of the Genetic Engineering Approval Committee" (GEAC).

All the Acts/Rules enumerated in this chapter greatly help the country in playing a constructive and beneficial role for streamlining international food trade (Imports & Exports) by providing traders with all the needful guidelines.

15.2 ROLE OF MINISTRY OF HEALTH & FAMILY WELFARE/ DIRECTORATE GENERAL OF HEALTH SERVICES (CODEX CONTACT POINT)

Food Legislation and food control infrastructure should be sufficiently developed in the country to enable provide adequate health protection and in the well being of its citizens. It should be ensured that all types of food are free from any hazards responsible for adverse health effects. The Food is also a vital and critical item of international trade. We know that the observance of food hygiene principles is a condition of utmost importance. 'Food hygiene' comprises conditions and measures necessary for the production, processing, storage and distribution of food, designed to ensure a safe, sound, wholesome product fit for human consumption. This can be achieved by evolving a 'Food System' regulated by competent Food Laws. In India, Prevention of Food Adulteration Act, 1954 (PFA

Act) is the relevant Act. It is governed by the Ministry of Health & Family Welfare, Government. of India. This Ministry is responsible for framing or amending the laws and providing guidelines to the State Governments/Local Bodies for implementation of Rules/provisions contained under this Act. PFA Act is the statutory Act under which the quality and safety of food at the national level is regulated.

As per the provisions of the Act, Central Government has constituted a Committee called the Central Committee for Food Standards (CCFS). The CCFS is assisted by various Sub Committees. This Committee reviews the standards of food articles to regulate their manufacture, processing, storage, distribution, sale and import on regular basis. This Committee also undertakes to promote co-ordination of work on food standards being carried out by international governmental and non-governmental organizations. It has been well realized that the prime duty of this Committee is to help and guide the Central Government to promote consistency between international technical standards and domestic food standards, so as to keep the country in pace with international activities. This exercise greatly helps the country, in playing a constructive and beneficial role in international trade. The National Codex Contact Point (NCCP) for India is located at the Directorate General of Health Services, Ministry of Health and Family Welfare (MOH&FW), Government of India, Nirman Bhavan, New Delhi. It coordinates and promotes Codex activities in India in association with the National Codex Committee and various Shadow Committees and facilitates India's input to the work of Codex through an established consultation process.

The Directorate General of Health Services, Ministry of Health and Family Welfare (MOH&FW) has been designated as the nodal Ministry for liaison with the Codex Alimentarius Commission [CAC].

15.2.1 CODEX ALIMENTARIUS COMMISSION (CAC)

The Codex Alimentarius Commission was created in 1963 by Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) to develop food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Programme. The main purpose of this Programme is to protect the health of consumers, ensure fair practices in the food trade, and promote coordination of all food standards work undertaken by international governmental and non-governmental organizations. These standards are accepted by World Trade Organization (WTO) in settling disputes in international trade.

Codex Alimentarius is a collection of standards, codes of practice, guidelines and other recommendations. The Codex General Principles of Food Hygiene introduces the use of the Hazard Analysis and Critical Control Point (HACCP), being the prime food safety management system. Several significant issues, vital to fulfilling the objectives of the Codex Alimentarius Commission, namely, protecting the health of consumers, ensuring food safety and promoting fair global trade practices are under discussion across several Codex Committees that focus on Food Safety Objectives.

15.2.2 NATIONAL CODEX CONTACT POINT (NCCP)

The National Codex Contact Point (NCCP) acts as the liaison office to coordinate with the other concerned government departments (at central and state level), food industry, consumers, traders, research and development Institutions and academia. National Codex Committee and its Shadow Committees are to ensure that the

government is backed with an appropriate balance of policy and technical advice upon which to base decisions relating to issues raised in the context of the Codex Alimentarius Commission and its subsidiary bodies.

Core Functions of NCCP-INDIA

The NCCP has to perform the following core functions, established by the Codex Alimentarius Commission for National Codex Contact Points :

- Act as a link between the Codex Secretariat and India Member Body;
- Coordinate all relevant Codex activities within India ;
- Receive all Codex final texts (standards, codes of practice, guidelines and other advisory texts) and working documents of Codex Sessions and ensure that these are circulated to all those concerned;
- Send comments on Codex documents or proposals to the CAC or its subsidiary bodies and /or the Codex Secretariat within the time frame;
- Work in close cooperation with the National Codex Committee and its Shadow Committees;
- Act as a channel for the exchange of information and coordination of activities with other Codex Members;
- Receive invitations to Codex Sessions and inform the relevant chairpersons and the Codex Secretariat of the names of participants representing India;
- Maintain a library of Codex final texts ; and
- Promote Codex Activities throughout India.

15.2.3 NATIONAL CODEX COMMITTEE OF INDIA

The Department of Health in Ministry of Health and Family Welfare has constituted the National Codex (Food Products Standards) Committee (NCC) for liaison with the Codex Alimentarius Commission.

According to the Government of India Resolution issued by the Ministry of Health and Family Welfare, the National Codex (Food Products Standards) Committee shall meet as and when necessary to consider the various issues that may be discussed at the annual meetings of the Codex Alimentarius Commission and prepare necessary material thereof. The work of the Committee includes-standards for all the principal foods whether processed, semi-processed or raw for the distribution to the consumer. It also includes provisions in respect of food hygiene, food additives, pesticide residues, contaminants, labeling and preservation, methods of analysis and sampling, etc.

Terms of Reference of NCC-INDIA:

- To advise government on the implications of various food standardization, food quality and safety issues which have arisen and related to the work undertaken by the CAC so that national economic interest is taken into account, or at least considered, when international standards are discussed;
- To provide important inputs to the government so as to assist in ensuring quality and safety of food to the consumers, while at the same time

maximizing the opportunities for development of industry and expansion of international trade;

- To appoint sub-committees (shadow committees) on subject matters related to the corresponding Codex Committees to assist in the study or consideration of technical matters; and
- To meet as and when necessary to formulate national position.

Check Your Progress Exercise 1

1) What do you know about Indian Food Laws?

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2) What is the main function of Central Committee for Food Standards (CCFS)?

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3). Where is National Codex Contact Point (NCCP) India located?

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4). Describe any core function of NCCP India?

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15.3 AGENCIES INVOLVED IN IMPLEMENTATION OF PROVISIONS OF AGREEMENT ON TECHNICAL BARRIERS TO TRADE.

The World Trade organization (WTO) – Agreement on Technical Barriers to Trade (TBT Agreement) seeks to ensure that technical negotiations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade. However, it recognizes that countries have the right to establish protection, at levels they consider appropriate, for example for human, animal or plant life or health or the environment, and should not be prevented from taking measures necessary to ensure those levels of protection are met. The agreement therefore encourages countries to use international standards where these are appropriate, but it does not require them to change their levels of protection as a result of standardization.

The TBT Agreement takes into account the existence of legitimate divergences of taste, income, geographical and other factors between countries. For these reasons, the Agreement accords to Members a high degree of flexibility in the preparation,

adoption and application of their national technical regulations. The Preamble to the Agreement states that: no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal, and plant life or health, of the environment, or for the prevention of deceptive practices, at the levels that technical regulations are not prepared, adopted or applied with a view to, or with the effect of creating unnecessary obstacles to trade.

In recent years, the number of technical regulations and standards adopted by countries has grown significantly. The need to comply with different foreign technical regulations and standards certainly involves significant costs for producers and exporters. In general, these costs arise from the translation of foreign regulations, hiring of technical experts to explain foreign regulations, and adjustment of production facilities to comply with the requirements, etc. In addition, there is also the need to prove that the exported product meets the importing countries regulations. The high costs involved may discourage manufacturers in India inclined to export their food products. In the absence of international disciplines, a risk is envisaged that technical regulations and standards could be adopted and applied solely to protect domestic industries. As an obligation under the TBT Agreement, Member countries of the WTO are required to report to the WTO, in respect of all proposed technical regulations that could affect trade with other Member countries. The WTO Secretariat distributes this information in the form of "TBT Notifications" to all Member countries. TBT Notifications may however be also accessed from WTO website.

15.3.1 WTO TBT ENQUIRY POINT – ROLE OF BUREAU OF INDIAN STANDARDS

As per the provision in Article 10 of the TBT Agreement, each Member is required to set up a national enquiry point which is able to (a) answer all reasonable inquiries from other members and interested parties (b) provide the relevant documents regarding technical regulations, standards and conformity assessment procedures whether adopted or proposed to be adopted and (c) provide reasonable information on participation in bilateral or multilateral standard-related agreements, international and regional standardizing bodies and conformity assessment systems. The Ministry of Commerce, Government of India, being the nodal ministry for WTO matters, has designated Bureau of Indian Standards in the Department of Consumer Affairs as the WTO TBT Enquiry Point for India.

The Bureau of Indian Standards (BIS) has the following objectives :

- Harmonious development of standardization, marking and quality certification.
- To provide new thrust to standardization and quality control.
- To evolve a national strategy for according recognition to standards and integrating them with growth and development of production and exports.

BIS is representing India as a Member Body in the International Organisation for Standardisation (ISO) which is a network of the national standards institutes of

157 countries. ISO is a non-governmental organization that forms a bridge between the public and private sector. On the one hand, many of its member institutes are part of the governmental structure of their countries, or are mandated by their government. On the other hand, other members have their roots uniquely in the private sector, having been set up by national partnerships of industry associations. BIS is also implementing various schemes relating to process and product certification of food items. In this category Quality Management Systems Certification as per ISO 9000 series of standards, Environment Management Systems Certification as per ISO 14000 series of standards, Hazard Analysis and Critical Control Point Certification as per ISO 15000 series of standards, Occupational Health and Safety Management Systems Certification as per ISO 18000 series of standards and Food Safety Management Systems Certification as per ISO 22000 series of standards are important.

15.3.2 GUIDANCE FOR STAKEHOLDERS FOR COMMENTING ON THE TBT NOTIFICATIONS.

As per the Agreement on Technical Barriers to Trade, member countries can review and comment on each other's proposed regulations while the regulations are still in the draft stage and subject to revision. In this way, international transparency, international harmonization of standards and international free trade are encouraged. Interested stakeholders have been advised to see the WTO TBT Notifications from the WTO website. The TBT Notifications may be accessed from Documents Online from WTO website <http://www.wto.org>. The Notifications may be examined on the following aspects for the purpose of making comments:

- (1) Are these Notifications in accordance with International Standards?
- (2) Are these requirements trade restrictive?
- (3) Are they stricter than International Standards than necessary to meet legitimate objective of (a) Protection of human health or safety; (b) Protection of Animal or Plant life or health (c) Protection of Environment; (d) Prevention of deceptive practices
- (4) Are these Scientifically Justified?

Comments, if any can be forwarded to: WTO TBT Enquiry Point.

15.4 AGENCIES INVOLVED IN IMPLEMENTATION OF PROVISIONS OF AGREEMENT ON SANITARY AND PHYTOSANITARY MEASURES.

The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) is concerned with the application of food safety and animal and plant health regulations. It requires that no Member should be prevented from adopting or enforcing measures necessary to protect human, animal or plant life or health, subject to the requirement that these measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between Members where the same conditions prevail. The SPS Agreement provides that

while WTO Members have the right to adopt measures to ensure appropriate level of protection for animal, plant and human lives and health, the Member countries should not use such measures to create unnecessary restrictions on international trade. In order to ensure this, adequate transparency measures have been built in.

Article 7 of the agreement relating to **Transparency** requires Members to provide information on their Sanitary and Phytosanitary Measures and the changes being carried out. The Member countries are required to notify other countries of any new or changed Sanitary and Phytosanitary requirements which affect trade. Each Member country is required to ensure that enquiry point exists which is responsible for the provisions of answers to all reasonable questions from interested Members as well as for providing relevant documents regarding (a) any Sanitary or Phytosanitary Regulations adopted or proposed (b) any control and inspection procedures, production and quarantine treatment, pesticide tolerance and food additive approval procedures (c) risk assessment procedures, factors taken into consideration, as well as the determination of the appropriate level of Sanitary or Phytosanitary protection, and (d) the membership and participation of the Member, or of relevant bodies within its territory, in international and regional Sanitary and Phytosanitary organizations and systems, as well as in bilateral and multilateral agreements and arrangements within the scope of this Agreement, and the texts of such agreements and arrangements.

To ensure compatibility with the transparency provisions, three SPS-related Enquiry Points were established to handle all reasonable queries/comments on the SPS notifications/regulations viz. the Department of Agriculture & Cooperation, Ministry of Agriculture for plant health and life, the Ministry of Health & Family Welfare for human health and life, and the Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture for animal health and life.

A special Committee has been established within the WTO as a forum for the exchange of information among member governments on all aspects related to the implementation of the SPS Agreement. The SPS Committee reviews compliance with the agreement, discusses matters with potential trade impacts, and maintains close co-operation with the appropriate technical organizations. In a trade dispute regarding a sanitary or phytosanitary measure, the normal WTO dispute settlement procedures are used, and advice from appropriate scientific experts can be sought.

Check Your Progress Exercise 2

5) How do technical barriers to trade generally result?

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6) What does TBT Agreement take in to account to deal with an issue?

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7) What is the core function of WTO TBT Enquiry Point?

15.5 ROLE OF STATES/ LOCAL BODIES

In the interest of public health, it is the duty of the Government of the country as well as of the States and Local Bodies to provide the consumer, pure, hygienic and wholesome food by evolving a Food System regulated by competent Food Laws which are capable of achieving a definite goal of consumer protection from adulteration and deception. The National Food Law, i.e., Prevention of Food Adulteration Act, 1954 derives guidance from International Food Standards laying Bodies such as Food and Agriculture Organization (FAO) and World Health Organization (WHO) of United Nations and Codex Alimentarius Commission.

15.5.1 NATIONAL FOOD CONTROL ACT/RULES

Prevention of Food Adulteration Act, 1954 (PFA Act) is governed by the Central Government and implemented by the State Governments and Local Bodies (Corporations, Municipalities, Councils etc.). The PFA Act/Rules provide the legal basis for regulating the conditions under which food should be prepared and sold so as to safeguard Public health. This Act also contains provisions for protecting the public from any machinery or equipment, packaging and other materials with which food may come into contact in the course of manufacture or sale. PFA Act provides that food must not be harmful or in a deteriorated state or otherwise adulterated and must comply with any other conditions and specifications laid therein for the protection and maintenance of public health. It is not only concerned with safety of Food but also with its quality and genuineness and with safeguarding the consumer against any fraud and deception. The Act also prohibits the employment of food handlers suffering from certain diseases that might be transmitted through food during the course of its preparation, handling and service.

15.5.2 IMPLEMENTATION OF FOOD RELATED ACTS

State Governments and Local Bodies are responsible for implementation of PFA Act and certain other food related Acts. These Agencies are, in general, provided with necessary infrastructure for efficient administration of this Act. They have Local Health Authorities or Local Authorities, Food Inspectors, Food Laboratories headed by Public Analyst which are the essential instruments for checking food adulteration and violation of any rules or provisions laid therein. The samples of Food articles are taken by Food Inspectors under the guidelines of Local health Authorities for analysis by the Public Analyst Laboratory. These Agencies have their own courts of law to deal with the cases of food adulteration and any other violation under the Act. The Section 24 of this Act empowers the State Governments to make Rules for effective implementation of the provisions contained under the Act. The State Governments can define the powers and duties of Food Health Authority (Head of the PFA Department), Local Health Authority etc. It can prescribe the forms of License for the manufacture for sale, for the storage for sale, for sale and distribution of articles of food. Most important aspect

is that the State Government can prescribe conditions subject to which such license can be issued and the circumstances under which the license can be suspended or cancelled. The Local bodies and State Governments are actually responsible for the administration of Food Laws and they have continuous support from Central Government so as to play an effective role in curbing the menace of adulteration, contamination and any frauds or deception. In order to achieve an effective and rational enforcement of the Act, the Central Government on continuous basis enacts/amends various legislations to ensure consumer protection from this menace. A continuous evaluation of all activities aimed at the improvement of food safety is carried out by the Central Government for providing necessary guidelines to the State Governments. The Joint FAO/WHO Expert Committee on Food Safety has stressed a strong need for special food regulations and coordination within various departments of Local bodies and State Government. The Central Government is actively working on the aforementioned guidelines in order to strengthen these Agencies. The roles of State Government and Local Bodies are well defined to enable them attain the objective of consumer protection. There is, however, a need to define the role of different agencies working under the State Government and dealing with food health problems. At National level, various other agencies are functioning in the Government with programme of assuring quality control of food commodities or otherwise protecting consumers from any fraud or deception, unfair trade practices or restrictive trade practices.

Check your Progress Exercise 3

8) What are the provisions contained under PFA Act for protection of public health?

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9) What is the responsibility of State Govt. and the Local Bodies?

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10) What are the powers of State Government under PFA Act?

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11) With What is the SPS Agreement concerned?

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15.6 AGENCIES INVOLVED IN QUALITY CONTROL & PRE-SHIPMENT INSPECTION FOR EXPORTS.

15.6.1 ROLE OF EXPORT INSPECTION COUNCIL.

The Export (Quality Control & Inspection) Act, 1963 is administered by the Ministry of Commerce and Industry. The Act empowers the Government to :

- Notify commodities which will be subject to quality control and/or inspection prior to export,
- Establish standards of quality for such notified commodities, and
- Specify the type of quality control and/or inspection to be applied to such commodities.

EIC, either directly or through the Export Inspection Agencies, its field organizations, renders services in the areas of:

- Certification of quality of export commodities through installation of quality assurance systems (In-process Quality Control and Self-Certification) in the exporting units as well as consignment-wise inspection.
- Certification of quality of food items for export through installation of Food Safety Management Systems in the food processing units as per international standards.
- Issue of different types of Certificates such as Health, Authenticity etc. to exporters under various product schemes for export.
- Issue of Certificates of Origin to exporters under various preferential tariff schemes for export products.
- Laboratory testing services.
- Training and technical assistance to the industry in installation of Quality and Safety Management Systems based on principles of Hazard Analysis Critical Control Point (HACCP), ISO-9001: 2000, ISO: 17025 and other related international standards, laboratory testing etc.
- Recognition of Inspection Agencies as per ISO 17020 and Laboratories as per ISO 17025 and utilizing them for export inspection and testing.

Presently, EIC's certification is recognized in the following areas :

- (1) Basmati Rice by European Commission (for Certificate of Authenticity).
- (2) Black Pepper by United States Food & Drug Administration (USFDA)
- (3) Fish & Fishery Products by European Commission
- (4) Fish and Fishery Products by Australian Quarantine & Inspection Services (AQIS).
- (5) Milk Products, fruits and vegetable, etc. by Sri Lanka Standards Institute.

- (6) Various food products which include frozen marine products, jam, preserved goods, sauce, sugar syrup, edible oil and fat etc. by Korea Food & Drug Administration (KFDA).
- (7) Food products and Food packaging materials by the Turkish customs authorities.
- (8) Poultry Meat & its products by Japan Health Authorities.
- (9) Egg, Packaged water, Drugs & Pharma by Singapore.
- (10) Fishery and Aquaculture products by Italy.

15.6.2 ROLE OF DIRECTORATE OF MARKETING & INSPECTION.

Directorate of Marketing & Inspection (DMI) in the Department of Agriculture & Cooperation, Ministry of Agriculture is implementing the provisions of the Agricultural Produce (Grading & Marking) Act, 1937. The Act provides for grading and marking of the agricultural commodities. The grade standards framed under the provisions of the Act are popularly called Agmark standards. Till date, grade standards of 197 agricultural commodities have been framed. Recently, Grade standards of 32 important fruits and vegetables have been harmonized with international standards keeping in view the intrinsic quality of the Indian Produce. There is provision for certification of the commodities for which grade standards have been framed. European Commission has approved DMI's procedure for pre shipment inspection for export of fresh Fruits and Vegetables to EU countries. Agricultural Marketing Adviser has been notified as Official authority and DMI as inspection body for the purpose. Directorate General of Foreign Trade has issued

Public Notice No. 28(RE-2002)/2002-2007 dated 02.08.02 laying down that all fresh Fruits and Vegetables exported to European Union may be inspected and certified by DMI and that the inspection and certification would be voluntary in nature. Fruits and Vegetables are assessed for quality and safety matters as per the prescribed standards for the issue of Certificate of Agmark Grading. Grapes and onions are being certified for exports to EU countries.

15.6.3 ROLE OF AGRICULTURAL AND PROCESSED FOOD PRODUCTS EXPORT DEVELOPMENT AUTHORITY OF INDIA (APEDA)

The Agricultural and Processed Food Products Export Development Authority Act, 1985 provides for the establishment of an Authority for the development and promotion of exports of certain agriculture and processed food products and matters connected therewith. APEDA under the Ministry of Commerce and Industry was established as per the provisions of the Act. Following functions have been assigned to the Authority.

- Development of industries relating to the scheduled products for export by way of providing financial assistance or otherwise for undertaking surveys and feasibility studies, participation in equity capital through joint ventures and other relief's and subsidy schemes;

- Registration of persons as exporters of the scheduled products on payment of such fees as may be prescribed;
- Fixing of standards and specifications for the scheduled products for the purpose of exports;
- Carrying out inspection of meat and meat products in slaughter houses, processing plants, storage premises, conveyances or other places where such products are kept or handled for the purpose of ensuring the quality of such products;
- Improving of packaging of the Scheduled products; Improving of marketing of the Scheduled products outside India;
- Promotion of export oriented production and development of the Scheduled products;
- Training in various aspects of the industries connected with the scheduled products;

APEDA is mandated with the responsibility of the export promotion and development of various commodities viz. Fruits, Vegetables and their Products, Meat and Meat Products, Poultry and Poultry Products, Dairy Products, Confectionery, Biscuits and Bakery Products, Honey, Jaggery and Sugar Products, Cocoa and its products, chocolates of all kinds, Alcoholic and Non-alcoholic Beverages, Cereal, Cereal Products, groundnuts, Peanuts and Walnuts, Pickles, Papads and Chutneys, Guar Gum, Floriculture and Floriculture Products, Herbal and Medicinal Plants, Rice (Non-Basmati), etc.

In addition to this, APEDA has been introduced with the responsibility to monitor exports of some non-scheduled items such as basmati rice, wheat, coarse grains and also import to sugar. APEDA is playing an important role in promoting exports of agricultural commodities.

15.7 ROLE OF MINISTRY OF ENVIRONMENT AND FOREST

The Ministry of Environment and Forests (MOEF) is primarily concerned with the implementation of policies and programme relating to conservation of the country's natural resources, its biodiversity, forests and wildlife, ensuring the welfare of animals and prevention and abatement of pollution. While implementing these policies and programme, the Ministry is guided by the principle of sustainable development and enhancement of human well-being. The Ministry also serves as the nodal agency in the country for the United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP) and South Asian Association for Regional Co-operation (SAARC) on matters pertaining to environment.

Environmental (Protection) Act, 1986 was enacted by the Ministry of Environment and Forests (Department of Environment, Forests and Wildlife) with the broad objectives of the Protection of the environment from any type of pollution, Environmental Health and Bio-diversity Conservation.

The Ministry of Environment & Forests, Government of India, has established a National Management Genetic Resources Centre in Orissa. The first international regulatory framework 'CARTAGENA Protocol' on Biosafety, for safe transfer, handling and use of 'Living Modified Organisms' (LMO) which was negotiated under the aegis of the Convention on Biological Diversity. The Protocol seeks to protect biological diversity from the potential risks posed by LMO (s) resulting from modern bio-technology. India has signed the Biosafety Protocol and acceded to this Protocol. The activities of the Protocol are coordinated by Conservation and Survey Division in the Ministry. These objectives are well supported by a set of legislative and regulatory measures aimed at the preservation, conservation and protection of the environment.

15.7.1 REGULATORY REFORMS IN BIOTECHNOLOGY

The Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro Organisms Genetically Engineered Organisms or Cells were notified as per provisions in Section 6, 8 & 25 of the Environment (Protection) Act, 1986.

The purpose of these Rules was to protect the environment, nature and health, in connection with the application of 'Gene technology' and 'Micro-organisms'. These rules are applicable to the manufacture, import and storage of Micro-organisms and Gene-technological products. These Rules generally apply to

genetically engineered/ genetically modified organisms, micro-organisms and cells and correspondingly to any substances and products and food stuffs, etc. of which such cells, organisms or tissues form part thereof. These rules are applicable in the following specific cases;

- (a) sale, offer for sale, storage for the purpose of sale, offer and any kind of handling genetically engineered cells or organisms with or without a consideration;
- (b) exportation and importation of genetically engineered cells or organisms;
- (c) production, manufacturing, processing, storage, import, drawing off, packaging and repacking of the Genetically Engineered / Genetically Modified Products;
- (d) Production, manufacture etc. of drugs and pharmaceuticals and food stuffs distilleries and tanneries, etc. to which use of micro-organisms genetically engineered micro-organisms have been made in one way or the other.

In order to understand the subject well, the following definitions may be helpful:

- i) "Biotechnology" means the application of scientific and engineering principles to the processing of materials by biological agents to produce goods and services;

- (ii) "Cell hybridization" means the formation of live cells with new combinations of genetic material through the fusion of two or more cells by means of methods which do not occur naturally;
- (iii) "Gene Technology" means the application of the gene technique called genetic engineering, include self-cloning and deletion as well as cell hybridization
- (iv) "Genetic engineering" means the technique by which heritable material, which does not usually occur or will not occur naturally in the organism or cell concerned, generated outside the organism or the cell is inserted into said cell or organism. It shall also mean the formation of new combinations of genetic material by incorporation of a cell into a host cell, where they occur naturally (self cloning) as well as modification of an organism or in a cell by deletion and removal of parts of the heritable material;

[The State Biotechnology Coordination Committees in the States has powers to inspect, investigate and take punitive action in case of violations of statutory provisions through the Nodal Department and the State Pollution Control Board/Directorate of Health/Medical Services. The Committee reviews periodically the safety and control measures in the various industries/institutions handling genetically engineered organisms/Hazardous microorganisms]

In this context I should bring in to your knowledge that 'Genetically Modified Foods' are constantly under attack by a larger section of Scientists &

Technologists for the apprehensions that these foods may prove fatal to human beings if consumed on regular basis. There are chances of producing /occurrence of uncontrollable 'Allergens' which may pose danger to human beings and animals. The controversies surrounding the acceptance of GM foods and crops, and knowing the worldwide opposition to GM foods, the GEAC* is expected to play a judicious role that goes beyond commerce.

15.7.2 GENETIC ENGINEERING APPROVAL COMMITTEE (GEAC)

The Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro Organisms Genetically Engineered Organisms or Cells provide for constitution of Genetic Engineering Approval Committee (GEAC). It functions as a body under the Department of Environment, Forests and Wildlife for approval of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle. The Committee is also responsible for approval of proposals relating to release of genetically engineered organisms/ genetically modified (GMO) crops and food products into the environment including experiment Field trials.

The activities of Genetic Engineering Approval Committee (GEAC) are coordinated by the 'Conservation and Survey Division' in the Ministry of Environment & Forests. The progress/ achievements made during the recent years are described below :

The GEAC has approved the following proposals:

- 1) Import of GM Soybean oil: The Ministry of Environment & Forests[MOEF] has notified the Rules for "the Manufacture, Use, Import, Export and Storage of Hazardous microorganisms /Genetically Engineered Organisms or Cells, Rules" under the Environment (Protection) Act, 1986. As per the provisions these Rules - ***"Food stuffs, ingredients in foodstuffs and additives including processing aids containing or consisting of genetically engineered organisms or cells, shall not be produced, sold, imported or used except with the approval of the Genetic Engineering Approval Committee"*** (GEAC). The new import policy on GMOs, issued by DGFT (Directorate General of Foreign Trade) mandates prior approval of GEAC for all GM products including food items. Therefore import of Soybean oil (refined or de-gummed) derived from GM Soya would require the prior approval of GEAC.

On an interim basis the GEAC approved the import of refined soybean oil subject to certification from the country of export that it has been derived from Roundup Ready Soybeans. In case of crude de-gummed soybean oil, in addition to the certification regarding it having been derived from Round up Ready Soybean; the importer is also required to submit the analytical report from either CFTRI /NIN / SHRI Ram Laboratories on the composition of crude de-gummed Soybean oil both pre and post processing stage before a final view is

taken. The fact needs to be kept in mind that GEAC clearance does not exempt the importers from the requirements under PFA.

- 2) Commercial Release of transgenic Crops: The GEAC has approved commercial release of BT Cotton hybrids in the North, Central and South zones.

In addition to Bt hybrids containing the Cry 1 Ac gene, earlier approved by the GEAC is in commercial cultivation since 2002; the GEAC has approved hybrids with three new gene/event namely; Bt hybrids expressing encoding fusion genes (cry1Ab+Cry Ac) ' GFM developed Seeds, Bt hybrids expressing cry 1Ac gene (Event-1) and Bt hybrids expressing stacked genes Cry1 Ac and Cry 2Ab —BG-II

- 3) Streamlining of the Regulatory Procedure for transgenic crops: The MOEF has constituted sub-Committee on Bt cotton and related issues under the Chairmanship of Dr C D MAYEE, Chairman Agricultural Scientist Recruitment Board and Co-Chair GEAC with a view to rationalize the regulatory procedure and facilitate introduction of new technology for making available cheaper options to farmers.

- 4) Transgenic Bt Brinjal plants has been produced with cry 1Ac gene from Bacillus thuringiensis tolerant to the fruit and shoot borer, one of the major pests which attack the brinjal crop throughout its life cycle. As per practice the bio

safety data has to be placed on MOEF website under the sub heading 'GEAC Clearance'.

Check Your Progress Exercise 4

12) What is the primary concern of Ministry of Environment & Forests?

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13) What do you know about CARTAGENA Protocol?

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14) What do you understand by 'Gene Technology'?

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15) What is the primary function of GEAC under Ministry of Environment & Forests?

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16) What is meant by "Cell Hybridization?"

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15.8 ROLE OF DEPARTMENT OF AGRICULTURE & COOPERATION, MINISTRY OF AGRICULTURE IN IMPLEMENTING INSECTICIDES ACT, 1968.

Insecticides Act, 1968 provides for regulating the import, manufacture, sale, transport, distribution and use of insecticides with a view to prevent risks to human beings and animals and for other matters connected therewith.

Section 5 of the Act provides for constitution of Registration committee for the registration of insecticides for use within the country. Any person desiring to import or manufacture any insecticide has to apply to the Registration Committee for the registration of such insecticide.

The following Codex definitions may be helpful to understand the Role of Insecticides Act in the implementation of International Food Laws & Standards:

Pesticides means any substance intended for preventing, destroying, attracting, repelling, or controlling any Pest including unwanted species of plants or animals during the production, storage, transport, distribution and processing of food, and agricultural commodities, or animal feeds. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant, fruit thinning agent, or sprouting inhibitor and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport. The term normally excludes fertilizers, plant and animal nutrients, food additives, and animal drugs.

Pesticides Residue means any specified substance in food, agricultural commodities, or animal feed resulting from the use of pesticides. The term includes any derivative of a pesticide, such as conversion products, metabolites, reaction products, and impurities considered to be of toxicological significance.

15.8.1 GOOD AGRICULTURAL PRACTICES (GAPS) IN THE USE OF PESTICIDES

Good Agricultural Practices (GAP) are a collection of principles to apply for on-farm production and post-production processes, resulting in safe and healthy food and non-food agricultural products, while taking into account economical, social and environmental sustainability. Under Codex, the use of pesticides is elaborated as under:

Pesticide Management is an activity carried out within the overall framework of the Plant Protection Service of Food & Agriculture Organization (FAO). It is

designed to work together with member countries as a partner to introduce sustainable and environmentally sound agricultural practices that reduce health and environmental risks associated with the use of pesticides. It includes the nationally authorized safe use of Pesticides under actual conditions necessary for effective and reliable pest control. It encompasses a range of levels of pesticides

applications up to the highest authorized use, applied in a manner which leaves a residue which is the smallest amount practicable. Authorized safe uses are determined at the national level and include nationally registered or recommended uses, which take into account public and occupational health and environmental safety considerations. Actual conditions include any stage in the production, storage, transport, distribution and processing of food commodities and animal feed.

Codex Maximum Residues Limit for Pesticides (MRLs) is the maximum concentration of a pesticide residue (expressed as mg/kg), recommended by Codex Alimentarius Commission to be legally permitted in or on food commodities and animal feeds. MRLs are based on GAPS data and foods derived from commodities that comply with the respective MRLs are intended to be toxicologically acceptable. Rule 65 of Prevention of Food Adulteration Rules, 1955 specify 'tolerance limits' in terms of mg/kg for various food items.

15.8.2 CODEX MAXIMUM LIMITS FOR PESTICIDES

RESIDUES IN FOODS & TBT AGREEMENT

A country which accepts a codex maximum limit for pesticides residues in foods according to the provision of General Principles of the Codex Alimentarius should be prepared to offer advice and guidance to exporters and processors of food for export to promote understanding of and compliance with the requirements of importing countries. Technical barriers to trade (TBT) generally result from the preparation, adoption and application of different technical regulations and conformity assessment procedures. If a producer in an exporting country 'A' wants to export to an importing country 'B'; he will be obliged to satisfy the technical requirements that apply in country 'B', with all the financial consequences this entails. The importing country agreeing Codex MRL s have a right to reject consignment on different technical regulations.

Check your Progress Exercise 5

17) What do you understand by 'Pesticides Management' as defined under Codex?

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18) How will you describe 'Maximum Residues Limits for Pesticides' under Codex?

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19) What is the advice to be given to exporters regarding Pesticides residues limit in foods prescribed under Codex?

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20) What do you understand by 'Authorized safe uses of pesticides'?

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15.9 LET US SUM UP

International Food trade is very vital for strengthening economic status of a country. This has a direct relationship with the need for the improvement of internationally adopted food quality and standards for foods meant for export. The general principles of Codex Alimentarius need to be complied with for achieving this objective. Codex Standards are a collection of internationally adopted food standards presented in a uniform manner. The primary objectives of principles laid under Codex Alimentarius are to ensure fair practices in the

trade in food as well as to facilitate international food trade. This objective is possible to achieve by way of elaboration and harmonization of definitions provided and complying requirements for food with Codex Standards. The National Codex Contact Point acts for promoting these principles as the liaison office to coordinate with concerned Central & States government departments, food industry, consumers, traders, research and development Institutions. In international trade, technical barriers to trade generally result from adoption and application of different technical regulations and conformity assessment procedures in different countries. To overcome these barriers, World Trade Organization has laid certain norms and stipulated that each WTO member must set up a national enquiry point to answer all reasonable inquiries from other members and interested parties and provide the documents concerning adopted standards, technical regulations etc. The Bureau of Indian Standards has been designated as the WTO TBT Enquiry Point for India. Genetic Engineering Approval Committee (GEAC) a body under the Department of Environment, Forests and Wildlife is established for approval of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle. It is also responsible for approval of proposals relating to release of genetically engineered organisms/ genetically modified (GMO) crops and food products into the environment and experiment Field trials so as not prove hazardous to human beings, animals etc. Pesticide Management is an activity carried out within the overall framework of the Plant Protection Service of Food & Agriculture Organization (FAO). It is designed to introduce sustainable & environmentally sound agricultural practices that reduce health and environmental risks associated with the use of pesticides. This objective shall be greatly helpful in smooth and fruitful international food trade to help eliminating the implicated technical barriers to trade.

15.12 SUGGESTED FURTHER READING

- i) Joint FAO/WHO Standards Programme CODEX ALIMENTARIUS COMMISSION, Volume 1 A, General Requirements, Website: codexalimentarius.net
- ii) Codex Contact Point, Ministry of Health & Family Welfare, Govt. of India [Website: codexindia.nic.in];
- iii) Codex Alimentarius document: World Trade Organization (WTO) (Impact of TBT & SPS Agreements on Food Labelling & Safety Regulations)[Website: www.wto.org];
- iv) BIS TBT Enquiry Point, [Website: www.bis.org.in];
- v) Notification No.G.S.R.1037 dated 5th Dec.1989 “Rules for the Manufacture, Use, Import, Export & Storage of Hazardous Micro Organisms Genetically Engineered Organisms or Cells” under the Environment Protection Act, 1986, Ministry of Environment and Forests [Website:envfor.nic.in];
- vi) PIB Releases of MOEF of May25,2006;
- vii) The Insecticides Act, 1968;
- viii) Environment Protection Act, 1986 Website: envfor.nic.in];

- ix) Mini. Of Environment & Forests [Website:envfor.nic.in]
- x) Codex Contact Point DGHS, Ministry of Health & Family Welfare Govt. of India.[Website: mohfw.nic.in]APEDA [Website:www.apeda.com], OIE (World Organization for Animal Health) [Website: www.oie.int], IPPC [www.ippc.int], Globalgap [www.globalgap.org], EIC of India [www.eicindia.org], Dte. Of Marketing & Inspection-AGMARK[agmarknet.nic.in], Bureau of Indian Standards[www.bis.org.net] Food Safety Management System [www.who.int/food safety] WTO- SPS [www.wto.org] SPS Measures [en.wikipedia.org]

15.10 KEY WORDS

- Food Legislation** : It includes Food Standards and Quality, provisions in respect of hygienic and nutritional quality of foods, including microbiological norms, provisions for food additives, pesticides residues, contaminants, labelling and presentations
- Hazards** : A biological, chemical or physical agent in or condition of food with the potential to cause an adverse health effects;
- Food Hygiene** : It comprises conditions and measures necessary for the production, processing, storage and distribution of food; designed to ensure a safe, sound, wholesome product fit for human consumption.
- Food Additive** : Any substance not normally consumed as a food by itself but added to foods to serve a technological function like; Taste/Aroma, Flavouring, Preservatives, Colouring, Anti-oxidants & Artificial Sweeteners etc.
- WTO** : World Trade Organization
- TBT** : Technical Barriers to Trade
- NCCP** : National Codex Contact Point
- FAO** : Food & Agriculture Organization of United Nations

WHO : World Health Organization of United Nations

Food Handlers : Food handlers are the persons engaged in food service operations i.e. Food preparation, handling and serving. They must be free from contagious diseases;

GEAC : Genetic Engineering Approval Committee;

LMO : Living Modified Organisms

Biotechnology : means the application of scientific and engineering principles to the processing of materials by biological agents to produce goods and services;

MRLs : Maximum Residue Limits for Pesticides ;

GAPs : Good Agricultural Practices

DGFT : Directorate General of Foreign Trade under the Ministry of Commerce and Industries, Government of India.

15.11 ANSWERS TO CHECK YOUR PROGRESS

EXERCISES

Your answer should include the following points:

- I. The Indian Food Laws are known as Prevention of Food Adulteration (PFA) Act, governed by the Ministry of Health & Family Welfare, Govt. of India;
- II. The Central Committee for Food Standards (CCFS) reviews on regular basis, the quality and standards of food articles to regulate their manufacture, processing, storage, distribution, sale & import;
- III. The National Codex Contact Point (NCCP) is located at the Directorate General of Health Services, Ministry of Health & Family Welfare, Govt. of India, Nirman Bhawan, New Delhi;

- IV. National Codex Contact Point (NCCP) India coordinates all relevant Codex activities in India;
- V. Technical Barriers to Trade (TBT) generally result from the preparation, adoption and application of different technical regulations and conformity assessment procedure by the countries;
- VI. TBT Agreement takes in to account the existence of legitimate divergence of taste, income, geographical and other factors between the countries.
- VII. Core function of TBT Enquiry Point is to provide answer to all reasonable enquiries from interested parties as well as providing relevant documents concerning standards, technical regulations and conformity assessment procedure.
- VIII. The PFA Act contains provisions for protecting the public health risk rising from any machinery or equipment, packaging and other materials with which food may come into contact in the course of manufacture or sale.
- IX. The Local Bodies and State Governments are actually responsible for the administration of Food Laws with the support of Central Govt. so as to be effective in arresting the menace of adulteration, contamination and any frauds or deception.
- X. PFA Act empowers the State Governments to make Rules for effective implementation of the provisions contained under the Act. State Governments can define the powers and duties of Food Health Authority, Local Health Authority, and issuing of License and conditions for manufacture, storage and sale of foods.
- XI. The SPS Agreement is concerned with the application of food safety and animal and plant health regulations.
- XII. The MOEF is primarily concerned with the implementation of policies and programme relating to conservation of the country's natural resources, its biodiversity, forests & wildlife and prevention and abatement of pollution.
- XIII. The first international regulatory framework 'CARTAGENA Protocol' on Biosafety, for safe transfer, handling and use of 'Living Modified Organisms' (LMO) was negotiated under the aegis of the Convention on Biological Diversity
- XIV. "Gene Technology" means the application of the gene technique called genetic engineering, include self-cloning and deletion as well as cell hybridization
- XV. Genetic Engineering Approval Committee (GEAC) functions as a body under the Department of Environment, Forests and Wildlife for approval of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- XVI. "Cell hybridization" means the formation of live cells with new combinations of genetic material through the fusion of two or more cells by means of methods which do not occur naturally.
- XVII. 'Pesticide Management' is an activity carried out within the overall framework of the Plant Protection Service of Food & Agriculture Organization (FAO). It is designed to work together with member

countries as a partner to introduce sustainable and environmentally sound agricultural practices that reduce health and environmental risks associated with the use of pesticides.

- XVIII. Codex Maximum Residues Limit for Pesticides (MRLs) is the maximum concentration of a pesticide residue (expressed as mg/kg), recommended by Codex Alimentarius Commission to be legally permitted in or on food commodities and animal feeds.
- XIX. A country which accepts a codex maximum limit for pesticides residues in foods according to Codex should be prepared to offer advice and guidance to exporters and processors of food for export to promote understanding of and compliance with the requirements of importing countries.
- XX. Authorized safe uses for pesticides are determined at the national level and include nationally registered or recommended uses, which take into account public and occupational health and environmental safety considerations.