LAWS AND REGULATION TO FOODS AND FOOD ADDITIVES

Country Report

<u>NEPAL</u>

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Nepal Report

Regulatory Frameworks And Institutional Provisions For The Quality Control Of Food Products In Nepal

<u>Note:</u> Nepal follows Hindu calendar (Bikram Sambat) which is approximately 57 years ahead of international calendar. Year 2027 in Nepali calendar would be 1970 in International calendar.

i. Administrative Authorities

Inception of Food control system in Nepal goes back to sixties, when Government of Nepal (GoN-Then HMG Nepal) decided to open one new department in 1960 in the name of Department of Food which was put structurally under the Ministry of Food, Agriculture and Irrigation. The department endeavored to establish a regulatory set up in the country for food control. As a result, Food Act enacted in Nepal for the first time in 1966. The opening of an institutional set up for food regulation in the country was also inspired by the international trends, because even before sixties, there were already established systems in operation in many countries in the world including India. At the beginning, it was generally realized in this region that the threats to the quality of food is mainly intentional which is nothing but malpractices and adulteration guided by the profit motive. It could also be observed from the fact that the first food act enacted in India was given the name as Prevention of Food Adulteration Act 1954.

During the decade while Nepal was initiating the process of formulation food regulatory frameworks, very few operational models of food control authorities were existing around few developed countries of the world including India (PFA, 1954). Hence, in the course of formulating food regulatory framework in Nepal, many of the technical aspects were referred from PFA which was rather reasonable because consumers in both the neighboring countries have been sharing the same pattern of food habits and there has been cross boarder exchange of foods between the two countries in substantial numbers and quantity. These days, the trend of updating of regulation is mainly guided by the codex guidelines.

However, some of the main features of the regulatory frame which is in place and being executed in the present context is given below.

ii. Food Act 2023 (1966)

The main features as provisioned in Food Act are:

- Definition of food.
- Prohibition for production and distribution of adulterated and low quality foods.
- Power for seal and confiscation.
- Punishment for violated cases.
- Provision for licence to be obtained.
- Provision for Food Standards and Standardization Committee.
- Bans the production, sale and distribution of substandard, contaminated or hazardous food items (Article 3).
- Regulates the misbranding of sales by false statement.
- Provision for the detention of food products.
- Provision for licensing of food establishments.
- Provision for enforcement and penalties.
- Provision for analysis of food in specified laboratories (Article 8).
- Establishes the Food Standardisation Board (Article 9).
- Establishes the Nepalese government as a plaintiff, with authority to hear cases (Article 10).
- Sets out the process for appeal (Article 12).
- Provision for research and analysis laboratories (Article 13); and
- Sets out the functions of the Department of Food Technology and Quality Control (DFTQC) and the Food Standardization Board.

iii. Food Rules 2027 (2070)

As already mentioned above, in 1966 the promulgation of Food Act took place first time in the history of Nepal, its procedural part for actual implementation had to be worked out which took additional four years till 1970. As a result, food regulation based on the mandate given by Food Act came into existence in 1970 that incorporated many essential regulatory and technical aspects as listed below

Provisions for food additives.

- Contaminants.
- Inspections.
- Licensing.
- Analysis of food.
- Right and duties of public analyst.
- The working procedure of the Dept of Food Technology and Quality Control (DFTQC) as food quality control authority.
- Food Inspector; basic qualification required to be food inspector and his right and duties.
- Method of sampling and evidential documents to be prepared at sampling.
- Detention of food if found decomposed or rotten at production or sale.
- Filing of cases.
- Food standardization committee and its working procedure.
- Food labelling.
- Matters to be observed by food seller.
- Use of colour and preservative in food.
- Licence to be obtained by food business operator and its procedure.

Altogether food regulation comprises with 9 chapters and 14 schedules. The detailed formatting of the following aspects are given in the schedules:

- ❖ Food inspectors' licence.
- Sampling procedure and documents thereof.
- Mention on quantity of samples for various food products.
- The limits of permitted coal tar dyes and natural dyes to be used in foods.
- List of class 1 and class 2 preservatives.

iv. Department Food Technology and Quality Control (DFTQC)

Website: www.dftqc.gov.np/

The Department of Food Technology and Quality Control (DFTQC) functioning under **Ministry of Agriculture Development (MoAD),** Government of Nepal is the agency responsible for administering the food control programme in Nepal.

DFTQC delivers its activities through three Divisions and two sections as given below:

- Quality Control Division.
- Central Food Laboratory.

- Food Technology and Training Division.
- National Nutrition Programme.
- SPS Enquiry Point.

The functions of DFTQC, as specified in Section 7.2 (Part II) of the Food Act, are as follows:

- To analyse appeal (requested) samples.
- To assist the Food Standardisation Board in generating scientific data to set Standards for food.
- To conduct food inspector training program and issue licenses for food inspectors.
- To regulate imports of food products from the perspective of quality control.
- To facilitate export of food products from the perspective of food safety and quality.
- To provide laboratory services to food quality control programmes including industries and import export trades as requested.

Quality Control Division

This is the division responsible to execute the factions and activities specifically focused to food quality control (implementation of Food Act & Regulation) .Within this division there are sections and respected activities like:

- Food inspection.
- Industry licencing.
- Consumer awareness.
- Food standardization and compliance.

More details of DFTQC's responsibilities are given in **Annexure I**

v. Food Standard Fixation Committee

The major function of the Food Standardisation Committee is to make recommendations to the Government on the development of, or amendment to standards taking account of Codex practices, scientific justification and production practices. The Board is chaired by the Secretary of the Ministry of Agriculture Development and consists of representatives from several ministries, industry and consumer association.

Structure of Food Standard Fixation Committee

(1) A Food Standard Fixation Committee is hereby formed as follows so as to carry out the functions as specified in the Act and this Regulation:

(a) Secretary, Ministry of Agriculture Development	Chairperson
(b) Representative, Ministry of Law and Justice	Member
(c) Representative, Ministry of Industries	Member
(d) Representative, Ministry of Commerce	Member
(e) Representative, Ministry of Supplies	Member
(f) Representative, Ministry of Home	Member
(g) Representative, Ministry of Health	Member
(h) Representative, Kathmandu Municipal Council	Member
(i) One food industry entrepreneur nominated by Fede	eration of Industries

(i) One food industry entrepreneur nominated by Federation of Industries and Commerce

Member

(j) One nominated by the Ministry of Supplies from amongst the food consumers

Member

(k) Chief, Central Food Laboratory

Member Secretary

(2) The Ministry level representative member shall be of at least under secretary level.

The term of the member nominated under clauses (i) and (j) of sub-rule (1) shall be of two years.

vi. Mandatory Food Standards in Nepal

Generic Standards

The standards of food commodities either common staple or their products, are included in the generic standards. Standards of milk and milk products, grains and grain products, edible oils and fats, fruits and vegetable products, spices, sugar and sweetener, bakery and confectionery products, tea and coffee etc. come under this category. Table 1 shows the number of food commodities included in mandatory standards in Nepal.

Table 1. Food Commodities included on Mandatory Standards of Nepal

S. N.	Food Group	No. Of Food
		commodity
1	Milk & Milk Products	18
2	Fats & Oils	16
3	Fruits & Vegetable Products	17
4	Spices & Condiments	22
5	Tea, Coffee, Cocoa and their Products	3
6	Salt	2
7	Cereal, Pulses & their Products	23
8	Processed Drinking Water	1
9	Non-Alcoholic Beverage	1
10	Sweetening Agent	3
11	Sweets and Confectionaries	3
	Total	109

Horizontal Standards (as Food Safety Standards)

As the trend of adding more chemicals in the forms of fertilizers, pesticides and veterinary drugs increased in agriculture chain it has increased the risk of their residues in food. Likewise food processing technology as developed world over in fast pace also created wider ground of adding more and more chemicals in the form of processing aids, colours, preservatives and so on. As a response to these increasing risk on food safety situation, food safety standards are being reviewed in developed countries and it is in increasing pace in developing countries. As a result, newer frameworks and quantitative standards and limits are coming up as horizontal food safety standards. In this context, Nepal has moved few step forward in preparing horizontal food safety standards. But there is long way to go to have a significant work in this regard.

Some of the works done so far in this direction are:

- ➤ Food safety has been also duly emphasized as food quality in food rules wherever deemed necessary.
- ➤ The safety limits as MRLs have been established and published for 29 pesticides that is applicable to food products belonging to group: Cereal, pulse and their Products (total products 23).

- Maximum residue limits (MRL) have been established for heavy metals like Lead, Copper, Arsenic, Tin, Zinc, Cadmium, Mercury, Chromium, and Nickel which is applicable to various food products like Beverages, Baking Powder, Edible Oils and Fats, Spices Powders, Yeast and Yeast products, Carbonated Water and Other foods.
- ➤ The limit for mycotoxin including aflatoxin has been established (which should not be more than 20 ppb) .This is stated at the end of generic standards for each of Whole Green Gram, Split Green Gram, Dehusked Split Green Gram, Red Gram, Whole Black Gram, Split Black Gram, Whole Bengal Gram, Split Bengal Gram, Whole Lentil, Dehusked Lentil, Bengal Gram Flour, Wheat, Maize, Corn Flakes and Rice.
- ➤ The limit of Aflatoxin B1 should not exceed 50 ppb in the feed of milking cattle prepared by feed industries.

vii. Laws And Regulations Related To Food Additives

Overview

For those additives and processing aids which are not yet established and published in food standards of Nepal, reference is made in Codex and PFA (now FSSAI).

During the course of standard development, whether it is for generic standard, or for other additives, the frequently referred standard used to be the standard published by PFA (now FSSAI) and CODEX. This has also facilitated the efforts toward the process of harmonization of standards.

Food Additives Definition and Functional classes

- > Flavors: natural and artificial flavors in processed foods are referred in Codex and PFA publication. No detail on qualitative and quantitative is given in Nepalese food standard.
- Processing Aids: No specific definitions and quantitative limits are available in the existing Food Act and Regulation regarding processing aids.
- > Carry Over: No specific requirements available but generally guided by Codex requirements.
- ➤ Functional Classes: There are many Additives coming up in internal and external markets with specific claims as per their functional role. This has been one of the important sectors for food regulation.

However in the present context, only few classes such as food colors (natural and artificial), preservatives (class I and Class II) and few vitamins and minerals are given with quantitative limits in Food Regulation and Standards in Nepal. Detail given below.

The prevailing food regulatory framework has not mentioned about functional foods and nutraceuticals.

Use of Colour or Preservative in Food (Clause 22)

No person shall, in a manner contrary to the provisions contained in schedule-10, produce, sell, distribute or export a food mixed with a colour, or keep such mixed substance for any of such purposes.

Explanation: "Colour" means any natural or artificial colour to be mixed in a food.

(a) Coal Tar Colours (Synthetic Dyes) Allowed To Be Used In Food:

No coal tar colour (dye) except the following coal tar colours synthetically produced or a mixture thereof shall be used in any food:

Table 2. List of Coal Tar Colours Permitted to be Used in Food

Type	Colour Index	Common name	Other name
	No. 1956		
Red	16185	Amaranth	Food Red 9
Red	16255	Ponceau 4R	
Red	45430	Erythrosine	Food red 14
Red	14720	Carmoisine (Azo Rubin)	
Red	16045	Fast red E	
Yellow	19140	Tartrazine	Food yellow 4
Yellow	15985	Sunset yellow FCF	
Blue	73015	Indigo carmine	Food blue 1
Blue	42090	Brilliant blue FCF	
Green	44090	Wool green B.S.	
Green	42053	Fast green FCF	

(b) Maximum Limit of Permitted Colour: The above-mentioned Coal Tar Colours may be added to any food that is ready for consumption not in excess of 200 milligram per kilogram.

- (c) Coal Tar Colour to be Pure: The Coal Tar Colours specified in clause (a) to be used in any food shall not contain any substance that is injurious to health.
- (d) Restriction on the Use of Coal Tar Colours: The Coal Tar Colours specified in clause (a) shall be used only in the following food:
 - (1) All kinds of ice-cream.
 - (2) Cheese.
 - (3) Different preparations from egg.
 - (4) Biscuit, cake, pastry, and other sweets.
 - (5) Non-alcoholic beverages except tea, coffee, coca cola.
 - (6) Custard powder.
 - (7) Jelly powder.
 - (8) Processed or preserved fruits and green vegetables.
 - (9) Soup powder.
 - (10) Flavouring agents.
- (e) Prohibition of the use of Coal Tar Colours: Even the Coal Tar Colours specified in clause (a) are not allowed to be used in any food to be eaten after cooking.
- **(f) Natural Colours allowed to be Used in Food:** Natural colours other than those mentioned below are not allowed to be used in any food:

Table 3. List of Permitted Natural Colours

Type	Colour Index	Common Name
Yellow	75.120	Annato
-do-	75.130	Carotine or β-carotine
-do-	75.100	Saffron
-do-	-	Riboflavin or lactoflavin
-do-	75.150	Turmeric or curcumin
-do-	-	Lentophil
Gray	-	Caramel
Red	75.470	Cochineal, carmine or carmine
		acid
-do-	-	Ratanjot, hamatoxilin
-do-	-	Arrayal (atsin)
-do-	75.520	Alkanet, alkaline
Green	75.810	Chlorophyll

(g) Restriction on use of Inorganic Colours and Pigments: No inorganic colours or pigments are permitted to be used in food preparations

Use of Preservative in Food

No person shall, in a manner contrary to the provisions contained in Schedule-11, produce, sell, distribute or export a food mixed with a preservative, or keep such mixed substance for any of such purposes.

Explanation: "Preservative" means any substance used to prevent, suppress or retard fermentation or acidification in, or any other process of decomposition of, any food.

Preservatives are divided into following classes and have to be used as follows:

(a) First Class Preservatives:

The following preservatives shall be deemed to be the first class preservatives, and these preservatives may be added in any quantity to any food.

- (1) Common salt.
- (2) Sugar/sugar candy.
- (3) Dextrose.
- (4) Glucose.
- (5) Wood smoke.
- (6) Spices.
- (7) Vinegar or acetic acid.
- (8) Honey.
- (9) Hops, and
- (10) Alcohol.

(b) Second Class Preservatives:

The following substances shall be deemed to be the Second Class Preservatives.

- (a) Sodium or potassium nitrites.
- (b) Benzoic acid and salts thereof.
- (c) Sulphurous acid and sulphur dioxide.

The preservatives mentioned above have to be used in the following food in a quantity not exceeding the following:

Table 4. List of Foods and Permitted Levels of Preservatives

		Parts per millio	on (ppm)
Descrip	tion of food	Sulfur dioxide	Benzoic acid
1	Sausages and spices and sausage meat	450	
	containing raw meat		
	Fruit pulp or juice (for conversion into jam, crystallized glace or cured fruit		
	etc.)		
2	(a) Cherries	3000	
	(b) Strawberries and raspberries	2000	
	(c) Other fruit juice	1000	
3.	Fruit juice concentrate	1500	
4.	Dried fruits		
	(a) Peaches, apples, pears, apricots and other fruits	2000	
	(b) Raisins, Kissmis	750	
5.	Non-alcoholic drinks including fruit drinks,	350	600
	lemon juices		
6.	Jam, marmalade, fruit jelly and pickles etc.	40	200
7.	Fruit pulps not mentioned in this list	350	
8.	Sugar, glucose, Gur and Khandsari etc.	70	
9.	Corn flour or starchy food	100	
10	Liquid Glucose	450	
11.	Gelatin	350	
12.	Beer	70	
13.	Cider apple juice	200	
14.	Wine	450	
15.	Brewed ginger beer		120
16.	Sweet soda water	70	120
17.	Coffee extract		450
18.	Pickles and chutneys made from fruits or		250
	vegetables		
19.	Tomato and other sauces		750
20.	Tomato pulps (puree and paste)		250
21.	Syrup and sherbets	600	600
22.	Dehydrated vegetables		
	(a) Tomato	550	
	(b) Cabbage	3000	
	(c) Beans, peas, carrot, <i>Palungo</i> , <i>Salgam</i> etc.	2000	
23.	Dried Ginger	2000	
24.	Processed meat (cooked picked) including	Sodium or	
•	ham and bacon	potassium	
		nitrite not	
		exceeding 200	
		ppm	
	Danish tinned caviar (salt added fish)	- ^	50

Explanation:

- (1) Part per million (ppm) means one part of One Million parts.
- (2) Sodium or potassium nitrites shall be used only in the meat of any other types which may be used to preserve hams or bacons.
- (3) **Prohibition on the use of more than one second class preservative:** The use of more than one Second Class Preservative in any food is prohibited.

viii. Prohibition On Sale Of Contaminated, Sub-Standard Or Injurious Food

- No person shall him/herself or through his/her representative produce, sell, or hold for the sale of, the following food:
 - (a) Contaminated or sub-standard food,
 - (b) Brominated vegetable oil (BVO) mixed food,
 - (c) Khesari, Kshesari pulse, Khesari flour, and food containing Khesari,
 - (d) Fruits cooked artificially from carbyde (acetylene) gas, and
 - (e) Such other food as Government of Nepal may, by a Notification in the Nepal Gazette, specify.
- No person shall sell the flesh of any animal having died a natural death or a food containing such flesh or keep such flesh or food for sale.

Specification for Food Additives

Table 5. List Of Permitted Food Additives

(a)	Vitamin A or Carotene	By the proportion of the international unit of vitamin "A" (in doing so, 0.6 microgram is to be considered as an international unit of biota carotene vitamin A).
(b)	Vitamin D	By the proportion of the international unit of
	Vitamin D ₂	vitamin "D".
	Calciferrol and	
	Vitamin D ₃	
c)	Other vitamins:	Milligram, by the proportion of the vitamin
	Thiamine (Vitamin B ₁)	concerned.
	Riboflavin (Vitamin B ₂)	
	Niacin or nicotinic acid	
	Pyridoxine (vitamin B ₆)	

	Folic acid	
	Pentothenic acid	
	Inacital	
	Biotin	
	Parasavinibenzoic acid	
	Colin	
(d)	Alpha Raibazil phosphate	Milligram, by the proportion of the nutritional
	(Vitamin B ₁₂)	minerals concerned.
	Ascorbic acid (Vitamin C)	
	Tocopherol (Vitamin E)	
	Vitamin K	
(e)	Nutritional minerals:	Milligram, by the proportion of the nutritional
	Calcium	minerals concerned.
	Iodine	
	Iron	
	Phosphorus	

ix. Labelling Requirements

Labeling requirement for food commodities has been described in Food Rules, 1970. The label is defined as ""Label" means a description or sign written, printed or marked on a container and/or on a cover containing any food which is put for sale or being conveyed. The chapter 6 of the Food Rules, 1970 describes, in detail, the labeling requirement as mentioned below:

- (1) No packed food shall be sold or kept for sale unless and until a label is put on the wrapper of container of that food specifying the following fact or description:
 - (a) The description of the food shall be so specified on the label that it may be easily and clearly seen, and where such food is kept in more than one container or cover, the label shall also be put on such inner container or cover.
 - (b) The name and address of the entrepreneur who has packed the food stuff or put the label thereon for sale shall be clearly specified on the label; and where such packing or labeling is carried out at the direction of or on behalf of an entrepreneur carrying on a business in the Nepal, the name and address of that entrepreneur shall also be specified on such label,

- (c) The label shall specify the real (usual) name of a food in case the food is made from only one food substance, the usual name, if any, of a mixed food, the real or usual name(s) of the different contents mixed to the food if the food is made from two or more food substances, and in the case of a means substance, the name and quantity thereof, in an order of the applied weight or volume thereof. Provided that, where the water is used as a means, it is not required to specify its quantity and measure on the label.
- (d) Both the net weight and measurement of the packed food shall be clearly specified, and the measurement or quantity so specified shall not be lesser in any case. If the food is allowed to be sold on the basis of weight and quantity of its container or wrapper thereof, the minimum weight and quantity of the packed container and its wrapper shall also be clearly mentioned.
- (e) Where a color or a preservative is added to a food, any statement or any kind of symbol or sign indicating such addition shall be mentioned on the label.
- (f) The label of a container containing a packed food shall compulsorily specify the batch number, date of production and expiry date.
- (2) The description to be specified in a label shall be in the **Nepali or English language**. The description may also be specified in another language, in addition to these two languages, if one so wishes.
- (3) Where a preservative is added to a food, its label shall not contain words such as "pure", "chokho", "bisuddha" and "sudda" or another description mentioned in such label shall not contain any false or misleading claim or sign or symbol.
- (4) A retailer of packed food shall not be required to put on the label to sell it after opening the packet.
- (5) The label of a food claimed to contain vitamins, minerals or other nutritional substances shall specify the matters required to be specified as mentioned below:
 - (a) One shall not claim that a food sold by him/her contains such vitamins and/or other nutritional substances without specifying the same on the label of that food.
 - (b) An advertisement or publicity statement shall not mention that a food contains such vitamins and/or other nutritional substances without specifying the quantity of such vitamins and/or other nutritional substances.
 - Note: (The label of a food claimed to contain vitamins, minerals or other nutritional substances shall clearly specify each of such vitamins, minerals or nutritional substances in the unit.)

- (6) Notwithstanding anything, it shall not be required to put a label on the following packed food:
 - (a) Fruits or green leaves kept fresh through the use of gas or cold storage or freezing or any other provision, Provided that, the exemption as referred to in this Rule shall not be available to any food canned, bottled or subject to other processing system, except in cases where it is kept fresh as mentioned above.
 - (b) Milk in liquid state other than condensed milk.
 - (c) Whole egg.
 - (d) Various kinds of fishes, meat other than the fish or food containing meat sealed in a can or bottle, Provided that, in the case of meat, it shall clearly indicate in writing the meat of which animal.
 - (e) Where the concerned trader sells or distributes through his/her own people the dish prepared in any hotel or any portion of the dish so prepared.
 - Provided that, in the case of the ghee and oil used in the preparation of a dish, it shall clearly indicate in writing that the dish has been prepared with the use of such ghee, oil or fatty substance.
- (7) A person who has a duty to act in accordance with this Rule shall not overwrite, alter or deface or erase the label put in accordance with these Rules.

Schedule 6 describes that the label of the container containing a sample to which a preservative is so added has to specify that the sample contains the preservative as mentioned above

There is no specific mention regarding the following aspects of label of packed foods:

- i. Method of consumption and any side effects of the product.
- ii. Price of product.
- iii. Registration number of manufacturer.
- iv. Composition of products.
- v. Standard mark of certification if given to the product.
- vi. Products guarantee and guarantee time limit of products like electric, electronics hardware and machinery parts.
- vii. Preventive and security measures necessary for any inflammable and hazardous.

The labelling requirements are same for domestic and imported food commodities. The label must be either in Nepali or in English language and the products labelled in other languages must be labelled either in English or in Nepali by the importing agency.

The packaging and labelling requirements for import certification are as mentioned below:

- Weights, shape and size of the retail pack.
- Type of the packaging material.
- Certifying agency for the packaging material to be of the food grade and quality.
- Whether or not the copy of quality certificate of packaging material attached with the application.
- The labelling detail of the product.
 - Languages used for labelling
 - Net weight
 - Composition
 - Date of manufacturing
 - o Expiry date
 - Other important information

x. Packaging Requirements

For very few products, specific packaging requirements are given as part of the product standards in the respective place. Otherwise there are no detailed packaging specifications published. However, the issue is getting attention in the concerning institutions. In certain cases, if reference has to be made, literature published from regional and international institutions are cited.

xi. Central Food Laboratory

The Central Food Laboratory (CFL) is authorised to investigate the quality and safety of food products in accordance with the Food Act and Regulations. The laboratory has the capability to analyse all major food commodities; has facilities for monitoring pesticide residues, heavy metals, mycotoxins and undertake microbiological analysis. The laboratory has equipment and manpower to carry routine analysis and testing of chemical residues. CFL is now the only accredited food testing laboratory in Nepal.

xii. Efforts for Updating Regulatory Framework

Food Act was initially proclaimed in 1966. With the change in time, different methods of food processing and preservation came into existence. The pattern of food trade has changed dramatically. Accordingly the existing Food Act has gone through different amendment. It covers: (1) Short Title and commencement; (2) Amendment in Section 2 of the 1966 Food Act; (3) Amendment in Section 3 of the Principal Act; (4) Amendment in Section 1 of the Principal Act; (5) Amendment in Section 5 of the Principal Act; (6) Amendment in Section 8 of the Principal Act; (7) Amendment in Section 9 of the Principal Act; (8) Amendment in Section 13 of the Principal Act; and (9) Conversion.

The original Food Act does not cover the mandatory requirements and regulation mechanisms for functional foods, neutraceuticals, GM foods and many other dimensions of newer food processing technologies. To address these issues, the existing Food Act has to be replaced with newer version, which has already been drafted and is under the process of promulgation by legislature.

With consumer awareness and changed pattern of food trade in Nepal, food quality control and food safety has become the much prioritized sector of government. The structural extension of the department and changing it into the Food Safety Authority has been advocated.

Besides Department of Food Technology and Quality Control, Nepal Bureau of Standards and Metrology has been also working in the field of food quality assurance. It provides voluntary quality certification marks.

xiii. Nepal Bureau of Standards and Metrology (NBSM)

Nepal Bureau of Standards and Metrology (NBSM) is the National Standards Body of Nepal. It is one of the departments under Ministry of Industry, Government of Nepal. NBSM has formulated 862 Standards (as of 19.07.2011 Ref: www.nbsm.gov.np), approved by National Council for Standards. The standards cover various industrial and consumer products, test methods, management system, basic standards etc. The standards are formulated based on internationally adopted practices. Majority of the standards published by NBSM are voluntary standards, however it could be mandatory to those who apply and comply the provisions as laid down in **Nepal Standards** (Certification Mark) Act, 2037 (1980). So long the proponent.

maintains the quality criteria and comply the law, he is illegible to use NS mark in the product for which he had applied for.

Categorization of NBSM standards

A. Total number of standards published(as of	862
19.07.2011)	
B. Standards for food products	106
C. Standards for food testing methods	90
D. Standards for systems related to food	29
E. Standards for food packaging materials	13
F. Standards for animal feed	4
G. Total standards related to food (B to F)	242
H. Standards for other products and systems	620
(A-G)	

Out of the total 862(as of 19.07-2011) standards published by NBSM, the standards for the following product has been mandatory:

- **Cement (OPC, PPC and PSC).**
- Galvanized Roofing Sheet.
- Galvanised Iron Wire.
- Code of Practice for LPG gas cylinder.
- ❖ Iron rod.
- Dry cell battery.

Functions, Duties and Responsibilities of NBSM

- To work as a secretariat to Nepal Council for Standards (NCS).
- To assist NCS by formulating draft standards.
- To grant the license to use NS Mark on industrial products in compliance with relevant Nepal Standards as approved by NCS.
- To carry out the inspection and supervision activities on industrial production and processes.
- To carry out necessary surveillance in the market.
- To provide testing facilities, calibration and laboratory accreditation services.
- To appoint or designate inspectors.
- To act as signatory of the agreement with the industry on proper use of license.

- To renew, suspend or to cancel the license to use NS Mark.
- To carry out the activities on information dissemination, training and international relation on Standardization, Metrology and Quality Control, Certification as well as Laboratory Accreditation.

xiv. National Council Of Standards

Under the "Nepal Standard (Certification Mark) Act 2037", Nepal Council for Standards (NCS) was formed as the governing body for Quality, Standards, Testing and Metrology (QSTM) activities in Nepal. NBSM is to act as the secretariat to this Council.

Functions, Duties and Responsibilities of Nepal Council of Standards (NCS)

- To establish, named and revise national standards.
- To adopt and or to recognize standards so established by other national bodies and International Standardization Institutions.
- To determine the fees for granting license to use quality certification Marks (NS Mark).
- To form committees, sub-committees as per future need in the field of formulation of standards and related matter.
- Other activities as directed by the Act.

xv.Legislations And Agencies - Food Safety

Act/Rules and implementing Departments	Related Ministries
Food Act 1966 DFTQC	MoAD
Food Regulation 1970 DFTQC	MoAD
Consumer protection Act 1998 DoC	MoCS
Consumer protection Rules 2000 DoC	MoCS
Slaughterhouse and Meat Inspection Act 1998 DLS	MoAD
Slaughterhouse and Meat Inspection Rules 2000 DLS	MoAD
Local self-governance Act 1999 Local Govts	MoLD
Local self-government Rules 2000 Local Govts	MoLD
Nepal Standards (Certification mark) Act 1980 NBSM	MoI
Nepal Standards (Certification mark) Rules 1983 NBSM	MoI

Standard weights and Measures Act 1968 NBSM	MoI
Standard weights and Measure Rules 1978 NBSM	MoI
Animal health and livestock service act 1998 DLS	MoAD
Animal health and Livestock service Rules 2000 DLS	MoAD
Breast feeding substances (Sales & Distribution control) Act	MoHP/MoAD
1992 DH/DFTQC	
Breast feeding substances (Sales & Distribution control)	MoHP/MOAD
Rules 1994 DH/DFTQC	
Iodized Salt (Production Sale and Distribution) Act	MoH/MoAD
1999DH/DFTQC	
Feed Act 1976 DFTQC	MoAD
Pesticide Regulation Act 1991 DoA	MoAD

DFTQC: Department of Food Technology & Quality Control.

MoAD: Ministry of Agriculture Development.
MoCS: Ministry of Commerce and Supplies.
MoLD: Ministry of Local Development.

MoI: Ministry of Industries.

MoHP: Ministry of Health & Population.

DH: Department of Health.

xvi. Related Laws And Regulations

Years are as per International calendar

Excise Act & Excise Rates for 2011 15/02/2011

The first 14 pages are the Excise Act, with the remainder of the pages covering excise rate for a range of products: Juices, All kinds of non-alcoholic beverages, Beer, Wine, Cider, Spirits, and Raw Materials for making Spirits, Liquors, and Over-Proof beverages, along with a range of other items not related to food.

Plant Protection Rules 22/03/2010

Covers (1) Preliminary; (2) Provisions relating to functions, duties and powers of Committee and Organization; (3) Provisions relating to entry permit. Schedule 1 - Format of application for entry permit. Schedule 2 - Format of entry permit of plants or plant products. Schedule 3 - Format of entry permit of biological control agents, beneficial organisms. Schedule 4 - Format of entry permit of soil, moss, peat and other plant growing means. Schedule 5 - Format of entry permit of germplasm / living modified organism / genetically modified organism / transgenic substance. Schedule 6 - Format of information to be given in the case of inappropriateness to issue. Schedule 7 - Format of application for the renewal of entry permit. Schedule 8 - Format of application to be made at entry point for entry permit. Schedule 9 - Format of clearance slip. Schedule 10 - Format of application for phytosanitary certificate. Schedule 11 - Format of phytosanitary certificate. Schedule 12 - Plant re-export phytosanitary certificate. Schedule 13 - Format of information to be given in the case of inappropriateness to issue Phytosanitary

certificate. Schedule 14 - Format of application for permit to carry consignment in transit. Schedule 15 - Format of entry permit to carry consignment in transit. Schedule 16 - Format of charge sheet.

Plant Protection Act 01/07/2002

The present Law repeals the former one, Act No. 2029 (1972), and institutes the Plant Quarantine Check Post, whose powers and areas of influence shall determined by the Government via notification in the Nepal Gazette. All importation and exportation of plants, seeds and related items must be licensed by the Plant Quarantine Check Post and fees paid accordingly. Under this Act, it is furthermore instituted the National Plant Quarantine Committee, whose functions and tasks shall be the protection of plants from whatever harmful occurrence (pests, diseases, infections).

Prohibitions and Restrictions Regarding the Import of Plants or Plant Products 07/04/1975

For the purpose of implementing section 3 of the Plant Protection Act, 2029, and for the purpose of preventing certain plant diseases, the present document contains a list of countries from which the importation of specified plants and plant products is prohibited.

Nepal Agricultural Research Council Act 21/01/2010

To establish and manage the Nepal Agricultural Research Council in order to enhance the economic standards of the general public by doing study and research works on the problems of the agricultural sector and finding out solutions to the problems. First issued 7 April, 1992 / this document amended 21 January, 2010.

Seeds Act 21/01/2010

To maintain the convenience and economic interest of the general public by providing the Seeds of quality-standards in a well planned manner upon producing, processing and testing the Seeds of high quality-standards to have the production of different crops increased. First issued 26 October, 1988 / Last amended 21 January, 2010.

Iodized salt (Production, Sale and Distribution) Act 21/01/2010

To make provision for the production, import, supply, sale, distribution of iodized salt in a proper quantity and for mixing iodine with salt in order to prevent and eradicate extensive and serious effects caused to public health from iodine deficiency. First issued 15 January, 1999 / Last amendment 21 January, 2010.

Animal Health & Livestock Services Rules 00/00/2007

Covers: (1) Preliminary; (2) Provisions relating to animal quarantine; (3) Provisions relating to Letter of Recommendation; (4) Miscellaneous. Schedule 1 - Method of disinfection. Schedule 2 - Format of Quarantine Certificate. Schedule 3 - Format of the Health Certificate for Dog and Cat / Format of Health Certificate for Domestic or Wild Animal / Format of Health Certificate for Semen of Animal / Format of the Sanitary Certificate for Meat of Domestic Animal / Format of the Sanitary Certificate for Product of Animal Origin destined for use in Animal Feeding, Industrial or Pharmaceutical Use / Format of the Animal Health Certificate for Equines / Format of the Animal Health Certification for Avian / Format of the Health Certificate for Eggs, Day-Old Chicks, Other Newly-hatched Avian Species and Hatching Eggs. Schedule 4 - Format of the Application for Letter of Recommendation. Schedule 5 - Format of the Application for Letter of Recommendation. Schedule 6 - Format of the Application for Letter of

Recommendation. Schedule 7 - Format of the Application for Letter of Recommendation. Schedule 8 - Format of the Application for License. Schedule 9 - Format of the License. Schedule 10 - Particulars of the disease to be enlisted. Schedule 11 - The Particulars to be Made Available While Making Application for the Production, Sale and Distribution or Import of Biological Product. First issued 2000 / Last amended 2007.

Animal Health & Livestock Services Regulation 21/02/2000

The Regulation provides for regulation on animal, products of animal origin and livestock product materials, the document comprises four Chapters: Chapter I, Preliminary; Chapter II, Provisions relating to Animal Quarantine; Chapter III, Provisions relating to letter of recommendation, licence and quality standard; Chapter IV, Miscellaneous. Extensive forms, related to the provisions, are listed in the Annexes.

Animal Slaughterhouse & Meat Inspection Act 22/03/1999

To establish slaughterhouse and arrange for meat inspection to safeguard the health and welfare of the people in general and to control adulteration in meat and meat products and to maintain reasonable standard of meat by protecting the wholesomeness, quality and adequacy of meat.

Slaughter & Meat Inspection Regulation 00/00/2001

Covers: Establishment of Slaugher house in Non-governmental sector; Establishment & Operation of a Slaughterhouse; Meat Seller to Obtain License; To Slaughter Animal in Other Places; To Keep Suspected Meat Safely; Meat Seller to Comply with Terms & Conditions; Procedure for Ante-mortem Examination of Animals; Procedure for Post-mortem Examination; Functions, Duties & Powers of the Meat Inspector; Functions, Duties & Powers of Meat Supervisor; Conveyance of Meat; To Disinfect; To Stamp or Mark; Charges for Inspection; etc.

Aguatic Animal Protection Act 20/02/1997

To make provisions on the protection of aquatic animals and other matters pertaining thereto in order to maintain peace and order as well as convenience and economic interests of the general public. First issued 13 December 1960 / Last amended 20 February, 1997.

National Dairy Development Board Act 10/08/1998

To establish and manage the National Dairy Development Board in order to maintain the health and convenience of the general public by producing much milk within the country through public participation and bringing about coordination among the programme on dairy production launched by the governmental and private sectors. First issued 29 April, 1992 / Last amended 10 August, 1998.

Consumer Protection Act 28/01/1998

The aim of this Act is to protect consumers from irregularities concerning the quality, quantity and prices of consumer goods or services, ensuring that no one lowers or removes the attributes or usefulness of consumer goods or services, preventing circumstances in which monopolies and unfair trade practices may lead to an increase in prices, as well as false and misleading propaganda regarding the use and usefulness of consumer goods or services, selling, supplying, importing, exporting and storing safe and quality consumer goods or services, and protecting the rights and interests of consumers through the establishment of an agency for redressing the hardships of consumers, and thus maintaining the health, convenience and economic welfare of consumers.

- 1.For the protection and promotion of breastfeeding, the committee may itself or through sub-committees or inspectors supervise or cause to be supervised as to whether the health care system, health worker and the manufacturer or distributor have observed the provisions required to be observed under the Act and these Rules.
- 2. This Regulation further implements provisions of the Mother's Milk Substitutes (Control of Sale and Distribution) Act, 1992. The Regulation, among other things, provides for applications for the certification of infant food products; applications for the approval of labels; and powers of inspectors.

The Mother's Milk Substitutes (Control of Sale & Distribution) Act (17pages) 13/08/1992

This Act aims at promoting breast feeding and controlling the sale and distribution of infant food. The Act provides for the establishment of a breastfeeding protection and promotion committee, defines its internal organization and lays down its duties and powers which include: to supervise the compliance with this Act; to review and approve the labels submitted by the manufacturers and distributors which are in conformity with the provisions of this Act; and to formulate a national policy for the protection and promotion of breastfeeding. The Act further specifies the acts prohibited by manufacturers and distributors and makes provision for: the certification of products from the central food laboratory; the labelling of products; and the conformity to the standards of the Nepal Bureau of Standards.

xvii. Commodity Standards: Case Studies

The standard development process, at its beginning during seventies and eighties, mainly focused to prepare standards for common primary products like cow's milk, buffalo milk including the standards for whole grains of rice, wheat, maize and few of commonly used primary products. In addition to these, the standard making process gradually covered milled products like whole wheat flour, refined wheat flour, milled pulses including pasteurized milk and some spices, whole and grind. Then so far officially published standards were mainly confined to compositional parameters with some permissible limits for objectionable components like damaged grains, insect fragments etc.

Towards the end of eighties and beginning of nineties, the trend of trade liberalization created conducive environment for trade expansion which brought new momentum in trade. As a result, importation of refined oils and other processed food products significantly increased in Nepalese markets. Further the trend of establishment of agro

food industries in the sector of vanaspati, refined flour mill, Biscuit and confectionary and instant noodle took in a increasing pace. Thus the production, trade and consumption of processed foods urged the need of standards for varieties of processed food products. In this connection, the efforts for preparing new standards for processed food was emphasized. As a result, new standards prepared and published. Some of the processed foods covered by the standards are:

- Refined vegetable ghee and oils.
- Biscuits and Confectionery.
- Sugar Boiled Confectionery.
- Ordinary noodles and Instant noodles.
- Bread.
- Corn flakes etc.
- Processed dairy products like: processed milk, evaporated milk, condensed milk, infant milk food.
- Luncheon Meat.
- Processed Drinking Water.
- Tea and Coffee (roasted, ground and instant).
- Fruits and vegetable products like juices, squashes, fruit beverages, jam, jelly, marmalade, chutneys and canned products etc.

Most of the standards so far prepared and published are mainly generic standards as listed in the Table 1. above. The total of each food group as given in Table 1. above comprise both primary products and processed products .Some published standards for colors , preservatives are discussed earlier. Now the effort is focused to prepare food safety standards aiming to cover horizontally, more and more products, processed and unprocessed, coming into the practice of production, processing, marketing and consumption.

However, the standards so far prepared and executed up to now are published in Nepali Language. For specific compositional and technical parameters the English version is also given in the brackets. The need is felt by the concerning stakeholders to have an authentically translated version of standards in English. Food safety and quality document being a regulatory document needs to be translated by authorized institutions. Some efforts could be expected towards this direction in near future.

As an example the mandatory standards for few of the food products are given below (*Actual version is in Nepali*)

1. <u>INSTANT NOODLES</u>

Instant noodle means the product prepared from refined wheat flour which is cooked in the shape of curled or twisted thread or in any other shape. The product may contains vegetable oil, seasonings, eggs, mushrooms, vegetables, chicken or its extract, shrimp etc and may be added with permitted flavour. The product shall not contain any mould and insect infestations, parts or whole, and shall meet the following requirements:-

(a) Moisture
(b) Total ash
(c) Ash insoluble in dilute HCl
(d) Protein
Not more than 4.0 %
Not more than 0.1 %
Not less than 10.0 %

(e) Extract Fat

(i) Acid value of extracted fat Not more than 1.0 %

(ii) Peroxide value Not more than 10 mili equivalent

peroxide oxygen per kg oil

(f) Monosodium glutamate Not more than 1.0%

If the noodle is prepared for the baby below the age of 12 month, it shall not contain monosodium glutamate.

The type of oil which is provided in the sachet shall meet the quality standards as fixed for that particular type of oil.

Note:

- 1. Whether the product is vegetarian or non vegetarian should be clearly mentioned in the label.
- 2. Calculation of above mentioned parameters from (b) to (d) is done in dry basis.

2. FRUIT JUICE

Fruit juice means the unfermented and un-concentrated liquid expressed from fresh, wholesome and ripe fruit and with or without:-

- (a) Sugar, dextrose, inverts sugar, or liquid glucose, either singly or in combination.
- (b) Water, peel-oil, fruit essences and flavor, common salt, ascorbic acid, citric acid, and permitted colors and preservatives.
- (c) The acidity of the finished product calculated as citric acid shall not be less than 4 per cent in the case of pure lemon juice, 5 per cent in the case of pure lemon juice but shall not exceed 3.5 per cent in the case of other juices.
- (d) The total soluble solids (except added sugar), measured by refract meter, must be not less than as mentioned below in different fruit juices:

(1) Orange	10.5 percent (by weight)
(2) Lemon	7.5 percent (by weight)
(3) Pine apple	10.0 percent (by weight)

(e) Fill of the container must be not less than 90 percent of the total capacity of the container

3. PROCESSED MILK

Processed milk means the liquid milk containing not less than 3.0 percent milk fat and 8.0 percent milk-solid-not-fat (SNF) by adjusting either or not by the partial removal of milk fat and either or not by the solubilization of skimmed milk powder and processed by pasteurization or sterilization. The milk processed by pasteurization process can be labeled as "pasteurized milk" and that processed by sterilization can be labeled as "sterilized milk".

4. LUNCHEON MEAT

Luncheon meat means the product prepared from edible portion of meat of mammalian animal, or bird slaughtered in an abattoir, which have been subjected to anti-mortem and post-mortem inspection.

Above mentioned edible meat shall be uniformly cured with edible common salt and permitted amount of sodium and / or potassium nitrite. The luncheon meat may be with or without binders such as cereal flour/starch, bread, biscuits or bakery products, milk powder, whey powder, egg protein, vegetable protein products, glucose, invert sugar, dextrose, lactose, maltose, glucose syrup, including corn syrup, spices, seasoning and condiments and water soluble hydrolyzed protein. The product may be smoked and flavored with natural and natural identical flavors and permitted flavor enhancer.

It may contain ascorbic acid / isoascorbic acid and its sodium salts (sodium isoascorbate- singly or in combination) not exceeding 500 mg/kg expressed as ascorbic acid as antioxidant and sodium and or potassium mono- and di - polyphosphates singly or in combination not exceeding 3000 mg/kg (expressed as P₂O₅) as water retention agents.

The quality requirements of luncheon meat must be as mentioned below in the table:-

1	(A) Minimum Meat content	
	(1) Product without binder	Not less than 90 percent
	(2) Product with binder	Not less than 80 percent
	(B) Total Fat content	
	(1) Product without binder	Not more than 30 percent
	(2) Product with binder	Not more than 35 percent
2	Microbial count	
	(1) Total Plate Count	Not more than 1,000 per gram
	(2) E. coli	Absent in 25 gram
	(3) Salmonella	Absent in 25 gram
	(4) Staphylococcus aureus	Absent in 25 gram
	(5) Clostridium perfringens	Absent in 25 gram
	(6) Clostridium botulinum	Absent

The product must be packed in hermetically sealed container and subjected to heat treatment followed by rapid cooling to ensure that the product is shelf stable.

The sealed container shall not show any change on incubation at 35°C for 10 days and 55°C for 5 days.

The product shall be safe, clean and the can shall be substantially free from stains from the foreign matter. It shall be capable of being sliced.

5. CARBONATED WATER:

Carbonated water (nonalcoholic beverage) means the beverage prepared by mixing one or more ingredients which is packed and sealed in bottle or can impregnated with carbon dioxide under pressure.

The following ingredients can be added in the product.

Sugar, liquid glucose, dextrose monohydrate, inverts sugar, fructose, honey, fruits and
vegetable extractive. and permitted flavoring, coloring and preservatives and
emulsifying and stabilizing agents, citric acid, fumaric acid, sorbitol, tartaric acid,
phosphoric acid, lactic acid, ascorbic acid,malic acid, edible gus asuch as guar, karaya,
arabic, carobean, furcellaran, tragacanth, gum ghatti, gelatin, albumin, licorice, and its
derivatives,salts of calcium and magnesium and vitamins.

It shall conform the following standards:

1. The following additives shall not exceed the quantity as given below:

Caffeine	not more than 200 mg/liter
estergum(glycerol ester of wood resin)	not more than 100 mg/liter
quinine salt as quinine sulphate	not more than 100 mg / liter
saccharine-Na	not more than 100 mg/liter
or acesulfame - K	not more than 300 mg/liter
or aspartame as methyl ester	not more thane 700 mg/liter
or sucralose	not more than 300 mg /liter

2. It shall absent with microorganisms or shall not be exceeded in numbers as given below:

Total plate count	not more than 50
Coliform count / 100 ml	absent
Yeast and mould count/ml	not more than 2

3. Carbonation

Carbonated water shall be subjected to carbonation and depending upon the type of beverage, at least one volume of carbon dioxide shall be present with suitably adjusting the temperature.

The product if added with sugar, the quantity thereof shall be mentioned in the label. And if the product is not added with sugar it shall be mentioned in the label. In case the product is packed in a recycle bottle the information for sugar added or not added con be given in the crown.

The carbonated beverage produced, as mentioned, shall be labeled with all information as per food rules .In case of preservatives, the requirements given in schedule-11 of food rules shall be followed.

In addition to the requirements as mentioned here, the product shall meet the quality standards for processed drinking water.

xviii. Hygiene- Sanitation And Food Safety Situation At Different Settings

Food Catering Business

The rapid pace of migration of people from rural areas to towns has created markets for food catering business as street foods, school catering and highway side dhawa (Kiosks or street foods) and restaurants. There are also tea stalls, breakfast and snack sellers serving ready to eat prepared foods in the big cities and local markets. This sector has been one of the sensitive areas requiring thorough monitoring for assuring the safety and quality of food served in place. Kathmadu valley itself is holding around four millions consumers. The eating outside homes trend is increasing. Altogether there are fifty eight municipalities all over the countries in almost all municipalities, there is rapidly increasing numbers of small food catering centers.

Fruits And Vegetable Chain

Another important area from the stand point of food safety is fruits and vegetable chain. The increasing use of pesticides in vegetable production and the use of chemical (carbide) in ripening in some fruits has been threatening to consumers health.

Meat And Milk Chain

The more traditional mode of animal slaughter and meat consumption pattern is one of the vulnerable sectors to be improved. Even in Kathmandu, no well organized slaughter house is in operation. In near future few slaughter house with adequate facilities could be expected in Kathmandu.

Other important chain is milk chain. Few relatively bigger size dairies are operating in some big towns. In Kathmandu valley itself around ten medium to big dairies are in

operation. However, several small dairies are emerging at rapid pace where intervention is needed to adopt good hygienic practice in the chain.

Need Of Food Epidemiological Database

gastro intestinal cases are frequently being reported in big hospitals and local health centers.

Food poisoning and infections are among the complains coming. However, a systematic data collecting mechanism is lacking. It is important to collect data on problems due to consumption of unsafe food.

In the organizational setup of Ministry of Health and Population, food epidemiology structure is lacking. Department of Food Technology and Quality Control (DFTQC) is also lacking the mechanism for the collection of food epidemiological data. Thus an institutional arrangement to have a mechanism of food epidemiological data collection and prompt intervention in case of outbreak is needed.

ADDITIONAL RESPONSIBILITIES OF DFTQC

DFTQC as Codex Contact Point

DFTQC has been entrusted with the responsibility of Codex Contact Point (CCP) for more than two decades. Government officials, especially from DFTQC have been participating in the meetings of different Codex committees relevant to the Nepalese context. Recently, National Codex Committee has been instituted to suggest GoN in food safety and quality control issues. Necessary provision has been made for the participation of private sector in the committee. DFTQC is functioning as National Codex committee secretariat and it is also providing the opportunity of sharing codex publications to the concerned stakeholders within the country.

DFTQC as SPS Enquiry Point

Nepal obtained WTO membership in April 23, 2004. As one of the prerequisite for WTO members to establish Sanitary and Phytosanitary (SPS) enquiry point, DFTQC was given with the mandate to work as SPS enquiry point.

DFTQC as INFOSAN Contact Point

The Department of Food Technology and Quality Control (DFTQC) of the Ministry of Agriculture Development has been appointed the national INFOSAN focal point in Nepal. Its major activities are the dissemination and communication of information on various food safety issues to all the stakeholders concerned. The important activities that have been undertaken so far include addressing the melamine contamination of milk from China and radionuclide contamination of food products from Japan. Action has also been taken on issues raised by the European Commission's Rapid Alert System for Food and Feed (RASFF) pertaining to mould-infested cheese spread from France, the presence of erucic acid in lemon pickle from Nepal and India, and the presence of gluten of wheat flour (an allergen) in buckwheat from Nepal. More work is required to develop the INFOSAN information centre for effective management of information.

DFTQC's Role On Technology And Nutrition

In addition to the functions mandated by Food act as mentioned above, other technical programmes conducted by DFTQC are:

- R & D on food product development and dissemination thereof through training.
- Nutrition programme through which community level nutritional status surveys are conducted and based on the nutritional problems of the community and locations studied some of the interventions are implemented. National Nutrition Program under this department also develops nutritionally rich food based commodities and carries out the nutritional quality analysis of the agro-industrial products.

DFTQC As Quality Control Authority For Feed (Cattle Feed & Poultry Feed)

DFTQC has also been mandated for the quality control of feed products. In this connection the feed act was proclaimed in the country in the year 1976. Subsequently feed regulation came into effect by the year 1984. Altogether there are mandatory standards for six different types of feed products. Within the structure of DFTQC, most of the food inspectors also hold the right as feed inspectors thereby simultaneously taking role for the quality control of cattle feed and poultry feed.