

**5. International Conference
on Regulatory Framework and Case Studies of Food and Food Additives
in India, Bangladesh, Nepal, and Sri Lanka**

Regulatory Framework on Foods and Food Additives in India, Bangladesh, Nepal and Sri Lanka

Date: February 22, Friday, 2013 10:00-17:00

Place: KAIUN CLUB, 2F 2-6-4, Hirakawa-cho, Chiyoda-ku, Tokyo 102-0093 Japan
(<http://kaiunclub.org>)

Organizer: International Life Sciences Institute, Japan (ILSI Japan),
(<http://www.ilsijapan.org>)

Language: Japanese and English, Simultaneous Translation

Agenda

10:00-10:15 Opening Remark, Shuichi Kimura, Chairman, ILSI Japan

Session 1:

10:15-10:40 Message from the Ministry of Agriculture, Forestry and Fisheries,
Japan:

Ryosuke Ogawa, Counsellor for Export Promotion Division, Food
Industry Affairs Division (MAFF)

10:40-11:15 Keynote Speech: Regulatory Framework on Food and Food Additives
in India:

Pradip Kumar Chakraborty, Director (Zone/Product Approval),
Food Safety and Standards Authority of India (FSSAI),

11:15-11:55 Introduction of the MAFF Overseas Business Support Project for
Food Industry in East Asia by ILSI Japan

Hiroaki Hamano, Ryuji Yamaguchi, ILSI Japan

12:00-13:00 Lunch Break

Session 2:

13:00-13:40 Regulatory Framework on Foods and Food Additives in India,
Masanori Kohmura, Ajinomoto Co., Inc.

13:40-14:10 Laws and Regulations Relating to Foods in Sri Lanka, Bangladesh
and Nepal Rekha Sinha, Executive Director, ILSI India

14:10-14:50 Towards Harmonization of Food and Food Additive Standards in
ASEAN Teoh Keng Ngee, ILSI Southeast Asian Region

14:50-15:10 Refreshment (Coffee Break)

Session 3:

15:10-15:30 Market for Processed Foods in India

D.H. Pai Panandiker, Chairman, ILSI India

15:30-16:00 Case Study 1: Business Expansion of Ajinomoto Co., Inc. in India

Katsuo Hamano, Ajinomoto Co., Inc.

16:00-16:30 Case Study 2: International Business Operation of Yakult

Ryoichi Akahoshi, Yakult Honsha Co., Ltd.

16:30-16:55 Q&A and General Discussions,

16:55-17:00 Closing,

Ryuji Yamaguchi, Executive Director, ILSI Japan

Regulatory Framework on Food and Food Additives in India



Food Safety & Standards Authority of India (FSSAI)
Ministry of Health and Family Welfare
Government of India
New Delhi

**Regulatory Framework on Food and Food Additives
in India, Bangladesh, Nepal and Srilanka .**

Pradip Kumar Chakraborty
Director (Zone/Product Approval)

E-Mail: pradipchakraborty91@yahoo.com/pradip@fssai.gov.in

Tel : +919953689010
Fax: 911124360936

Introduction

- I would like to convey my sincere thanks to International Life Science Institute, Japan and India for conducting this International conference on “Regulatory Framework on Food and Food Additives in India, Bangladesh, Nepal and Sri Lanka”.
- With continuous innovation and research happening all over the world, a lot of new products and new ingredients can be seen coming into the food segment. A lot of food products imported into the country also contain ingredients as well as additives which are being introduced for the first time.

- India has various food products in each state and food innovation is taking place at higher rate.
- The consumer safety is of paramount importance. Main objective of Food Safety and Standards Authority of India is to ensure all products which are placed in the market are having appropriate safety. I hope all the speakers of the conference will give us adequate knowledge on regulatory framework on Food and Food Additives.
- India has more than 10,000 food products in trade.
- The Food Safety & Standards Regulation 2011 has given quality/safety specifications for nearly 330 products. Rest all products come under the category of Proprietary food.

- The Food Safety and Standards Act was enacted in 2006 in India. There are as many as 101 sections in the Food Safety And Standards Act, 2006.
- The Food Safety Rules & Regulations was implemented in India on 5th August, 2011. Before that, we had eight different Acts to regulate different types of food processing industries in the country. These are :
 - 1) The Prevention of Food Adulteration Act, 1954
 - 2) The Fruit Products Order, 1955
 - 3) The Milk and Milk Products Order, 1992
 - 4) The Meat Food Products Order, 1973
 - 5) The vegetable Oil Products (Control) Order, 1947

- 6) The Edible Oils Packaging (Regulation) Order, 1998.
- 7) The Solvent Extracted Oil, De-oiled Meal and Edible Flour (Control) Order, 1967.
- 8) Any other order issued under the Essential Commodities Act, 1955 relating to Food.

All these eight acts have been repealed in India from 5th August, 2011 and replaced by a single Act, The Food Safety And Standards Act, 2006.

Under Section 4 of the FSS Act, 2006 Government of India established 'Food Safety and Standards Authority of India' to exercise the powers conferred on and to perform the functions assigned to it under this Act.

Constitution of FSSAI

- The Food Safety and Standards Authority shall consist of a Chairperson and twenty-two members. There shall be a Chief Executive Officer of the Food Safety and Standards Authority, who shall be the legal representative of the Food Safety and Standards Authority and shall be responsible for the day to day administration of the Food Safety and Standards Authority.



- The Food Safety and Standards Authority established eight scientific panels and one scientific committee.
- The Food Safety and Standards Authority and State Food Safety Authorities shall monitor and verify that the relevant requirements of law are fulfilled by Food Business Operators at all stages of food business.

Special points under FSS Act 2006

- The unique thing in FSS Act, 2006 is Food Recall Procedures under Section 28.
- If a food business operator has reasons to believe that the food is not in compliance with this Act, or the rules or regulations, he/she shall immediately initiate procedure to withdraw the food from the market under the food recall procedure.
- There is a provision for emergency prohibition notices and orders under section 34 of this Act.
- Even the purchaser may have food analyzed under section 40 of this Act.

Provision for Penalty

- There are provisions relating to sub - standard food, misbranded food, food containing extraneous matter, food not of the nature or substance or quality demanded, unhygienic processing of food, possessing adulterant, unsafe food.
- Even there is provision relating to penalty for misleading advertisement. Degree of penalty ranges from INR 100,000 to 10,00,000.



- The Food Safety and Standards Rules, 2011 relates to enforcement structure and procedure, Adjudication and appeal to tribunal, various forms of appeal.



Important aspects of Food Safety and Standards Regulations, 2011

- Under the Food Safety and Standards Regulations, 2011 we have :
 - 1) Licensing and Registration of Food Businesses Regulations.
 - 2) Food Products Standards and Food Additives Regulations.
 - 3) Packaging and Labeling Regulations.
 - 4) Contaminants, Toxins and Residues Regulations.

- 5) Laboratory and Samples Analysis Regulations.
- 6) Prohibitions and Regulations on Sales Regulations.

Briefly, this is the regulatory framework on food in India. Detail Act, Rules and Regulations are available on our website: www.fssai.gov.in

FSSAI Detailed Website

Food Safety and Standards Authority of India
भारतीय खाद्य संरक्षा एवं मानक प्राधिकरण

fssai

Search in FSSAI

Home Feedback / Suggestions E-office Contact us

About FSSAI Legislation Outreach Media Center RTI States Food Safety

Announcements
Meetings
Advisories
Notifications
Draft For Consultations
Science in FSSAI
Imported Food
Int. Co-operation
Product Approval

Codex
[Codex India](#)

Licensing
[List of HS Code](#)
[Downloadable Forms](#)

What's New

Categorization of food products & development of Food Codes.(11-05-2012)

- Suggestions Invited
- Food Codes

New CEO takes over at FSSAI (10-05-2012)

Affidavit for Product Approval. (10-05-2012)

Minutes of seventh Meeting of Central Advisory Committee of FSSAI held on 27th April, 2012. (10-05-2012)

Ad-hoc guidelines for Alcoholic Beverages related to Import Food Clearance Process by FSSAI's Authorized Officers-reg. (03-05-2012)

Corrigendum-Guidelines related to Food Import Clearance Process by FSSAI's

Simplifying procedures for Registration & Licensing

The Food Safety and Standards Authority of India has been established under the Food Safety and Standards Act, 2006 as a statutory body for laying down science based standards for articles of food and regulating manufacturing, processing, distribution, sale and import of food so as to ensure safe and wholesome food for human consumption....

[Continue Reading...](#)

Advice to Consumer

- Select fruits and vegetables without spots or necrosis (lesions) and any abnormality.
- Wash fruits and vegetables thoroughly with water (preferably) running potable water before eating and cooking.

Salient Features of Food Additives

- Use of food additives in food products is a major area of concern for the regulatory authority in India.
- The food products may contain additives as specified in the regulation.
- Use of food additives in traditional Indian foods, coloring matter, artificial sweeteners, preservatives, anti-oxidants, emulsifying and stabilizing agents, antifoaming agents in edible oils and fats, use of release agents in confectionary, flavoring agents and related substances, flavor enhancers, sequestering and buffering agents.

- Use of glycerol esters and wood resins, use of sucrose acetate Iso-butyrate, use of lactulose syrup, use of Dimethyl Dicarboxylate and other substances to be used in specified limits have been elaborated in Food Additives Regulations.
- Maximum permissible limit for the additives has been expressed mostly in parts per million i.e. mg/kg or in percentage % or in GMP.

Good Manufacturing Practices

- Good Manufacturing Practices (GMP) means the food additives used under the following conditions namely :
 - 1) The quantity of the additive added shall be limited to lowest possible level necessary to accomplish its desired effect.
 - 2) The quantity of the additive becomes a component of food and not intended to accomplish any physical or other technical effect.
 - 3) The additive is prepared and handled in the same way as a food ingredient.

Summary of list of Food Additives

Table 1:

- List of food additives for use in bread and biscuits have been specified in table 1 of the Food Additives Regulations.

Table 2:

- In table 2, permitted food additives for use in foods like snacks, sweets, instant mixes, rice and pulses based papads, ready to serve beverages, chewing gum, sugar based/ sugar free confectionary, chocolates, synthetic syrup, lozenges, have been specified.

Table 3:

- In table 3, food additives in foods not specified in table 2 like dairy based drinks, soups, custard powder, sausage etc have been specified.

Table 4:

- In table 4, list of food additives for use in edible oils and fats have been specified.

Table 5:

- List of food additives for use in fish and fish products have been specified in table 5.

Table 6:

- List of food additives for use in thermally processed fruits have been specified in table 6.

Table 7:

- In table 7, list of food additives in thermally processed vegetables have been specified.

Table 8:

- In table 8, list of food additives for use in food products like tamarind pulp, synthetic syrups, tomato puree and vinegar have been specified.

Table 9:

- In table 9, list of food additives for use in food products like Murrubba, squashes, fruit/vegetable juice, pulp etc have been specified.

Table 10:

- In table 10, list of food additives used in food products like jam/jellies, fruit marmalades, fruit drink etc have been specified.

Table 11:

- In table 11, list of food additives used in food products like dates, dry fruits and nuts have been specified.

Table 12:

- In table 12, list of food additives for use in sugars and salts have been specified.

Table 13:

- In table 13, list of food additives for use in cocoa powder, chocolate, sugar boiled confectionary, chewing gum/bubble gum have been specified.

Table 14:

- In table 14, list of food additives for use in milk products have been specified.

Table 15:

- In table 15, use of food additives in individual variety cheeses have been specified.

- As many as 555 food additives with International Numbering System (INS) have been listed in the food additives regulations only for identifying the food additives and their synonyms as published by the codex on 23/11/2005 Codex.
- In spite of specifying so many additives in 15 tables, lots of additives have not been specified in Food Safety and Standards Regulations, 2011
- In the absence of list of additives, we follow table 3 of GSFA published by the codex.
- Regulations on foods for special dietary uses, functional foods, nutraceuticals, health supplements is under draft stage.

- Nowadays, a lot of health supplements are being imported to India which contains a number of additives. We follow table 13.6 of GSFA which contains approved list of additives for health supplements.



Conclusions

- Food Safety and Standards Authority of India is in the process in reviewing various regulations including regulations for food additives
- However, harmonization with Codex Alimentarius Commission is under active consideration.
- We must have an uniform policy to permit food additives at least in Asian countries.

- Success of this conference lies on harmonization of food additives among India, Bangladesh, Sri Lanka and Nepal as food habits of the population of these countries are similar to some extent.
- This conference provides a platform where the representatives of these countries can interact amongst each other and coordinate the policies which will guide the future of the industry.
- It is a great honor and responsibility to be present in this conference and it is indeed a great learning chance for the participants by considering various perspectives offered by representatives of various countries.

*Thank
You*

農林水産省 東アジア食品産業海外展開支援事業

東アジアの食品等規格基準・分析方法等調査
と結果の共有化(第I~IV期)

実施主体:

特定非営利活動法人 国際生命科学研究機構
(ILSI Japan <http://www.ilsijapan.org>)

国際協力委員会 浜野 弘昭

農林水産省

東アジア食品産業海外展開支援事業

[趣旨]: 国内市場の量的飽和と成熟化に直面している我が国食品産業の経営体質、国際競争力の強化を図るため、人口増加と高い経済成長により魅力的な市場を形成しつつある東アジア地域(韓国、中国、ASEAN諸国およびインド地域)における事業の展開を促進する取り組みを支援する。

[調査概要]: 東アジア地域での食材、食品の流通を拡大するため、東アジア地域諸国における市場性(人口等)、日本の進出企業動向、今後の将来性等から、特に韓国、中国、シンガポール、マレーシア、フィリピン、インドネシア、タイ、ベトナム及びインド地域における、食品法体系、主たる食品等の規格基準やそれらの分析方法及び食品添加物規制を調査し、それらの相違点、及び今後統一或いは調和を図るための課題を抽出する。

農林水産省 東アジア食品産業海外展開支援事業
東アジアの食品等規格基準・分析方法等調査
と結果の共有化(第I～III期)

第I期:平成21(2009)年6月～平成22(2010)年3月

食品法体系と食品規格基準(即席めん、炭酸飲料、冷凍食品、牛乳)
コーデックス、日本、韓国、中国、マレーシア、シンガポール、フィリピン

第II期:平成22(2010)年6月～平成23(2011)年3月

分析方法
上記調査国に加えて、インドネシア、タイ、ベトナム

第III期:平成23(2011)年7月～平成24(2012)年3月

食品添加物に係る法体系と使用基準
コーデックス、日本、韓国、中国、及び上記 ASEAN 6か国

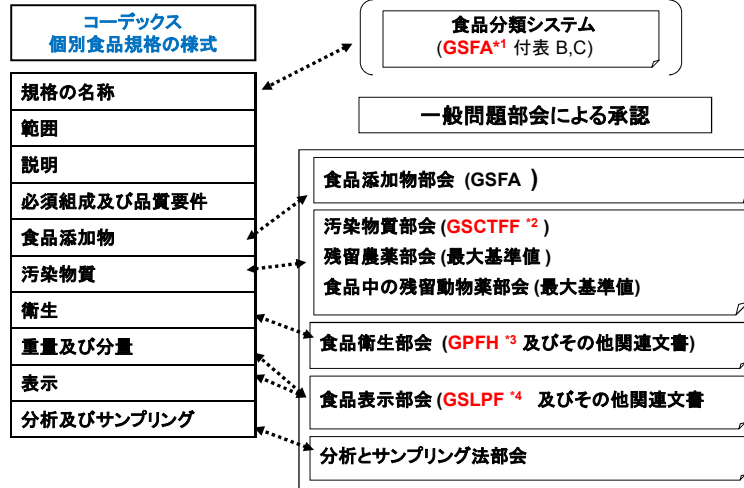
東アジアの食品等の規格基準、
分析方法の調査と結果の共有化

調査表：

コーデックスと日本

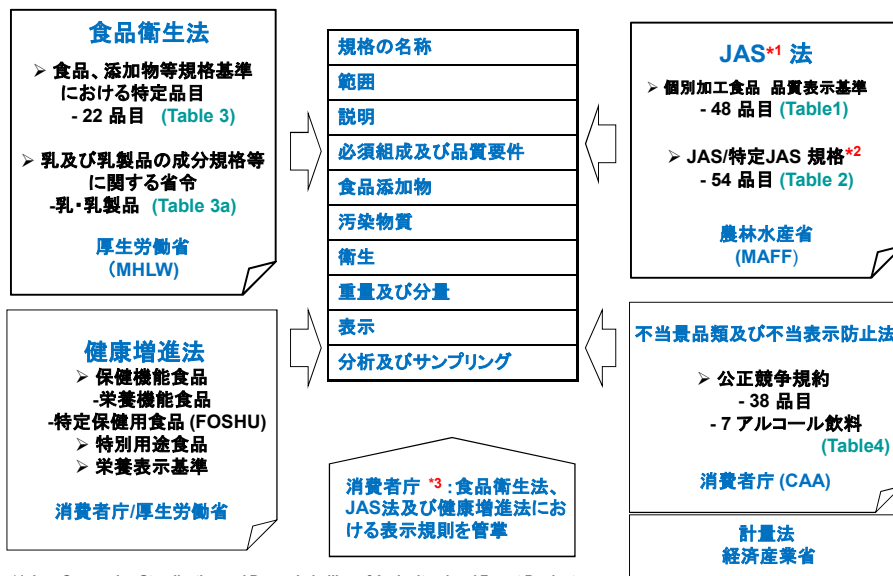
コーデックス個別食品規格の作成

コーデックス手続きマニュアル：第3節 コーデックス規格と関連文書の作成



- *1 Codex Stan 192-1955 食品添加物一般規格
- *2 Codex Stan 193-1995 食品及び飼料中の汚染物質一般規格
- *3 CAC/RCP1-1969 食品衛生一般原則
- *4 Codex Stan 1-1985 包装食品表示一般規格

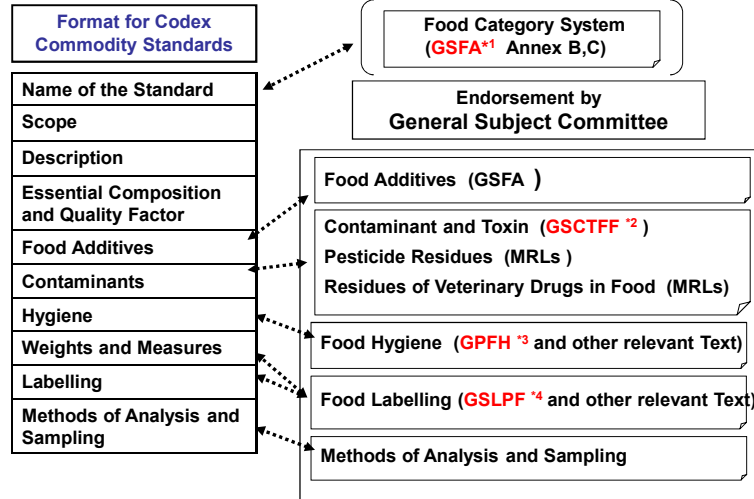
個別食品規格



- *1 Law Concerning Standardization and Proper Labelling of Agricultural and Forest Products
- *2 voluntary (other than organic foods) standard with the certification system to attach the JAS Mark
- *3 New governmental organization started in September 2009

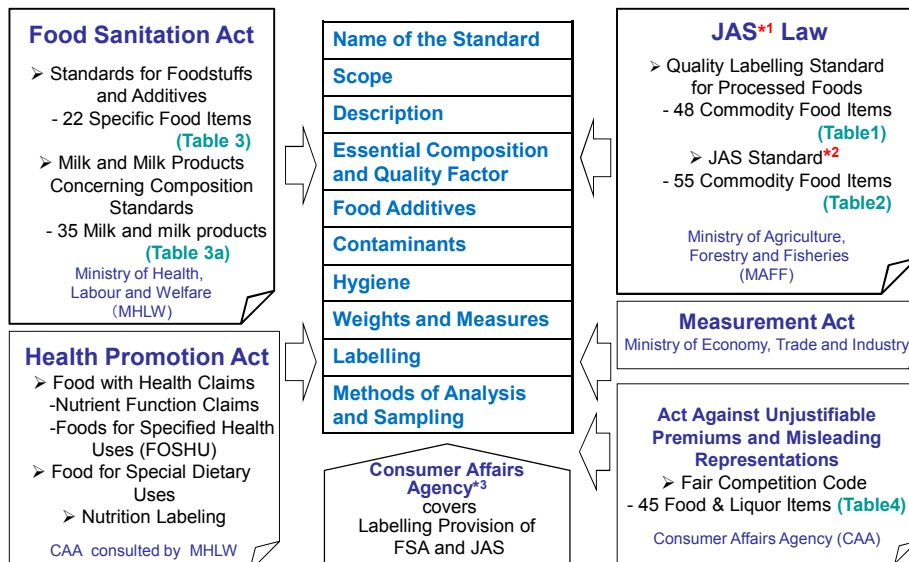
Codex Commodity Standards

Procedural Manual : Section III Elaboration of Codex Standards and Related Text

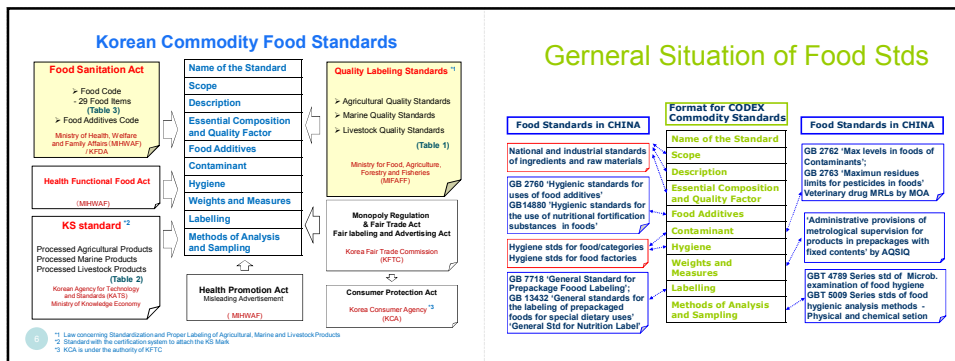


*1 Codex Stan 192-1955 General Standard for Food Additives
 *2 Codex Stan 193-1995 General Standard for Contaminants and Toxins in Foods and Feeds
 *3 CAC/RCPI-1969 General Principles of Food Hygiene
 *4 Codex Stan 1-1985 General Standards for the Labelling of Prepackaged Foods

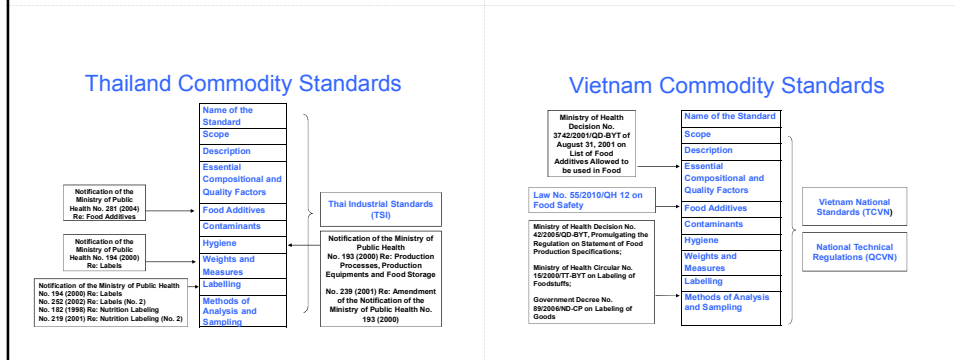
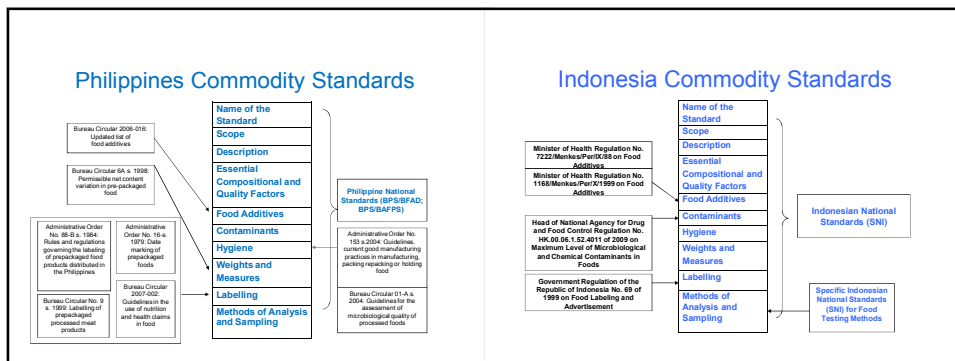
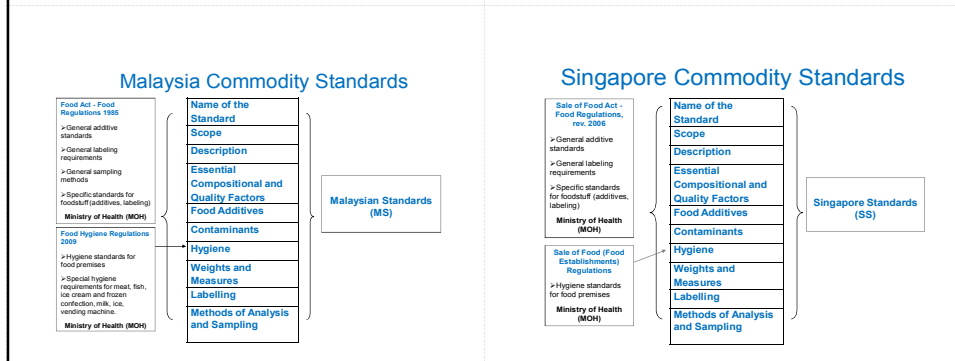
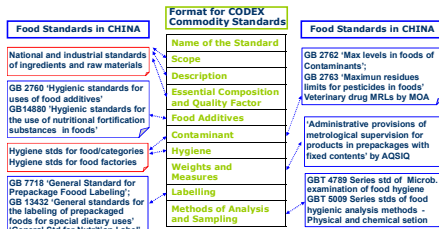
Commodity Food Standards for Japan



*1 Law Concerning Standardization and Proper Labelling of Agricultural and Forest Products
 *2 voluntary (other than organic foods) standard with the certification system to attach the JAS Mark
 *3 New governmental organization started in September 2009



General Situation of Food Stds



**Workshop for the 1st Term Project on
“Investigation of Commodity Food Standards
and Methods of Analysis in Asia”**



**International Conference for Sharing
Information on Food Standards and
Resource and Environmental Conservation
for Food Industries in Asia Pacific**
**Challenges and Opportunities for Food Safety
& Human Health**

**International Conference for
Sharing Information on Food
Standards, Resource and
Environmental Conservation for
Food Industries in Asia-Pacific**



March 4, 2011
Pathumwan Princess Hotel
Bangkok, Thailand

Sponsor:
Ministry of Agriculture,
Forestry and Fisheries
(MAFF)
Japan

Supporters:
Food and Drug
Administration (FDA)
Thailand

National Bureau of Agri-
cultural Commodity and
Food Standards (ACFS)
Thailand

Organizer:



International Life Sciences Institute (ILSI) Japan

In collaboration with

ILSI Focal Point in China

ILSI Korea

ILSI Southeast Asia Region



International Conference for Sharing Information on Food Standards in Asia

February 21, 2012,
Jakarta, Indonesia



Reports are available at:



<http://www.ilsijapan.org/English/ILSIJapan/COM/Com-W.php>

Diversity: Definition of Food Additives



Codex

Indonesia

Thailand

Malaysia

Vietnam

The Philippines

Singapore

China

Korea

Japan

Pluto is now out of the Solar System

平成24年度 東アジア食品産業海外展開支援事業
東アジアの食品等規格基準・分析方法等調査
と結果の共有化(第IV期)

『インド(地域)における食品関連法規に関する調査』

平成24年8月～平成25年3月

実施事業：『インド(地域)における食品関連法規に関する調査』①

事業の目的： 国内市場の量的飽和と成熟化に直面している我が国食品産業の経営体質の強化や国際競争力の強化に向け、経営基盤を強化するため、人口増加と高い経済成長により魅力的な市場を形成しつつある東アジア市場、特にインド地域における事業の展開を支援、促進する。

調査概要： インド地域(バングラデシュ、ネパール、スリランカを含む)での食品関連法規の体系、主たる食品等の規格基準とその分析方法や食品添加物の使用基準等の調査を ILSI India の協力を得て実施し、その結果は国際会議の開催、ILSI Japan ホームページ上等で情報共有し、課題の理解を深める。

なお、これまでに本調査事業において集積した東アジア地域(韓国、中国、ASEAN諸国及びインド地域)の食品関連法規に関する情報のデータベース化を行う。

実施事業：『インド(地域)における食品関連法規に関する調査』②

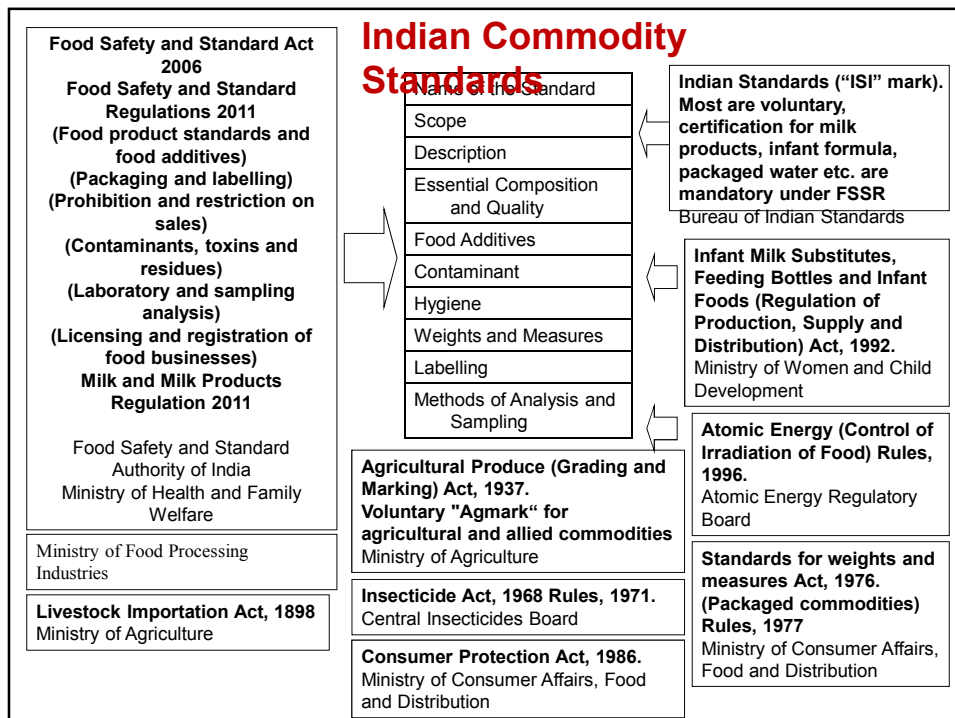
ILSI Japan の一組織である「国際協力委員会」内に調査対象とするそれぞれの専門分野(インド市場、食品規格基準、分析方法、食品添加物等)を担当する会員からなるプロジェクトチームを立ち上げ、各ILSI 支部(インド及び韓国、中国、東南アジア地域)と協力し、調査事業を進める。

実施主体	ILSI 支部	担当国
ILSI Japan (日本及びコーデックスを担当、調査全体の統括)	ILSI インド支部	インド(バングラデシュ、ネパール、スリランカを含む)
	ILSI 韓国支部	韓国
	ILSI 中国連絡事務所	中国(香港、台湾を除く)
	ILSI 東南アジア地域支部	マレーシア、シンガポール、フィリピン、インドネシア、タイ、ベトナム(ASEAN 諸国の内主要6か国)

実施事業：『インド(地域)における食品関連法規に関する調査』③

実施スケジュール：

- 予備調査、調査プログラム設計、調査票開発
2 か月(平成24年8,9月)
- 調査対象国における調査、調査票の作成
3 か月(平成24年10~12月)
- 調査票の集計、課題の抽出
2 か月(平成25年1,2月)
- 国際会議の開催
平成25年2月22日(東京)
- 報告書の作成
1 か月(平成25年3月)



Reports for Bangladesh, Nepal and Sri Lanka

Bangladesh Country Report

1. Introduction to Regulatory Framework for Foods

Bangladesh is a developing country with a population of 150 million. It is a member of the World Trade Organization (WTO) and the World Health Organization (WHO). The government has established a Food Safety and Standards Authority (FSSAI) to regulate the food supply. The FSSAI is responsible for ensuring the safety and quality of food products in Bangladesh.

i. Administrative Authority

The FSSAI is the administrative authority for food safety and standards in Bangladesh. It is responsible for the regulation and control of food products. The FSSAI is a statutory body established under the Food Safety and Standards Act, 2009.

ii. Administration and Inspection

The FSSAI is responsible for the administration and inspection of food products. It has a network of offices across the country to monitor and control the food supply.

iii. Ministry of Health and Family Welfare

The Ministry of Health and Family Welfare is responsible for the overall health and family welfare of the population. It is also involved in the regulation and control of food products.

iv. Ministry of Local Government, Rural Development and Cooperatives

The Ministry of Local Government, Rural Development and Cooperatives is responsible for the development and improvement of rural areas. It is also involved in the regulation and control of food products.

v. Ministry of Law, Justice and Parliamentary Affairs

The Ministry of Law, Justice and Parliamentary Affairs is responsible for the legal and judicial system. It is also involved in the regulation and control of food products.

vi. Ministry of Food and Disaster Management

The Ministry of Food and Disaster Management is responsible for the food and disaster management. It is also involved in the regulation and control of food products.

Nepal Report

Regulatory Frameworks And Institutional Provisions For The Quality Control Of Food

Note: Nepal follows Hindu calendar ahead of international calendar. Year International calendar.

i. Administrative Authorities

The Ministry of Health and Family Welfare (MoHFW) is the administrative authority for food safety and standards in Nepal. It is responsible for the regulation and control of food products. The MoHFW is a statutory body established under the Food Safety and Standards Act, 2009.

During the decade while Nepal was in transition, very few operational model developed countries of the world including India, were formulating food regulatory frameworks, from PFA which was rather reasonable have been sharing the same pattern of its food safety and standards.

During the decade while Nepal was in transition, very few operational model developed countries of the world including India, were formulating food regulatory frameworks, from PFA which was rather reasonable have been sharing the same pattern of its food safety and standards.

Sri Lanka Report

Laws and Regulations Relating to Foods in Sri Lanka

1. Administrative Authorities

Administrative Authorities in Sri Lanka as shown in Table 1 are responsible for Food Administration of food categories and related stage of production. It may be noted that the Chief Food Authority Director General of Health Services is the apex body responsible for the country's food control administration.

Sector	Products	Imported	Domestic
Ministry/Department of Agriculture (MOA)	Primary products of agriculture	Food Control Administration of MOA (FCA)	MOA and FCA
Department of Animal Production & Health (DAPH)	Animal Husbandry Milk Products	DAPH and FCA	DAPH and FCA
Coconut Development Authority (CDA)	Coconuts & their products	FCA and CDA	FCA and CDA
Tea Board (TB)	Manufactured Tea	FCA and TB	FCA and TB
Ministry/Department of Fisheries (MOF)	Fish and Fish Related products	FCA	MOF and FCA
Sri Lanka Standards Institution (SLSI)	Setting voluntary & mandatory standards	FCA and SLSI	FCA

インド、バングラデシュ、ネパール、スリランカにおける食品及び食品添加物の法的枠組みと事例研究

10:00-10:15 開会の挨拶

木村 修一 (ILSI Japan会長)

Session 1:

10:15-10:40 農林水産省ご挨拶:

大臣官房参事官 農林水産省 食糧産業局 海外展開・輸出促進グループ長 小川良介

10:40-11:15 基調講演:

Dr. Pradip Chakraborty, Director, Food Safety and Standards Authority of India

11:15-11:55 農林水産省東アジア食品産業海外展開支援事業及びILSIの紹介

浜野弘昭、山口隆司 (ILSI Japan)

12:00-13:00 昼食

Session 2:

13:00-13:40 インドにおける食品及び食品添加物の法的枠組み 香村正徳 (味の素㈱)

13:40-14:10 バングラデシュ、ネパール、スリランカにおける食品及び食品添加物の法的枠組み

Ms. Rekha Sinha (ILSI India事務局長)

14:10-14:50 アセアン (ASEAN) における食品基準のハーモナイゼーション

Mr. Teoh Keng Ngee (ILSI SEAR)

14:50-15:10 休憩

Session 3:

15:10-15:30 インドにおける加工食品及び飲料市場について

Mr. D.H. Pai Panandiker (ILSI India会長)

15:30-16:00 事例研究 1:

味の素㈱

16:00-16:30 事例研究 2:

㈱ヤクルト本社

16:30-16:55 質疑応答及び総合討論

16:55-17:00 閉会の挨拶

山口隆司 (ILSI Japan事務局長)

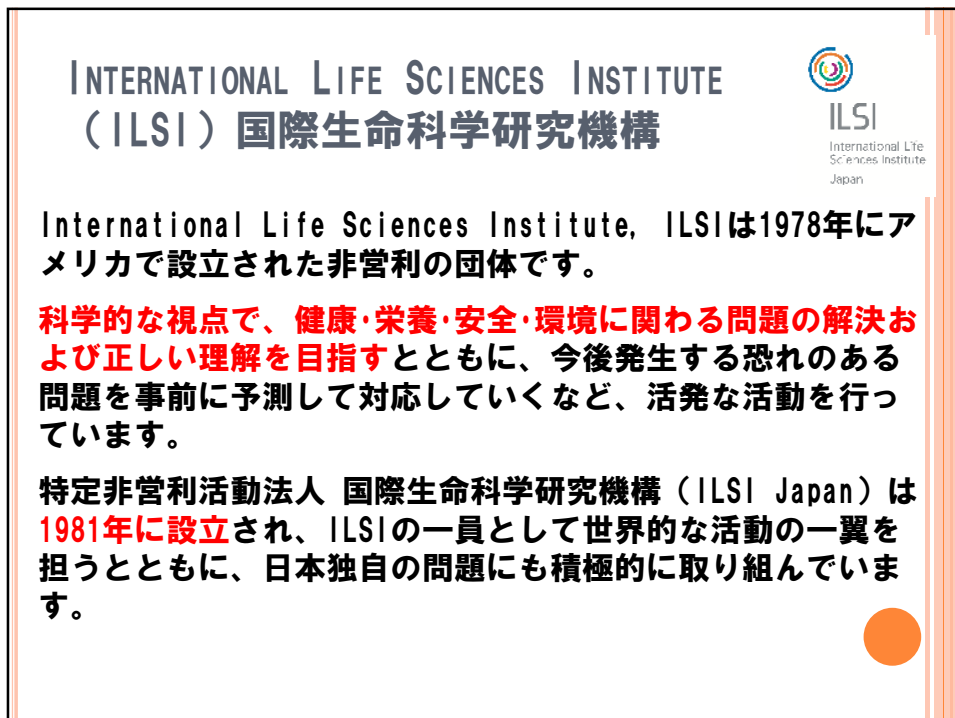
Data-base for the Information Collected and Updated (1st to 4th Term) (in preparation)



今後の事業展開について

- ◆ 調査テーマ/項目の拡大（表示等）
- ◆ 調査地域の拡大（東アジアから世界へ）
 - ◆ 情報の更新・データベースの拡充
- ◆ ILSI Japan の会員の参画・協力を！

About ILSI Japan



JAPAN	64
Europe	63
(HESI)	(47)
North Andean	46
Brasil	34
North America	34
Focal point in China	30
Southeast Asia Region	30
Korea	27
India	27
Mexico	21
Argentina	14
South Africa	8
South Andean	8
North Africa	7
TOTAL	460 (413)

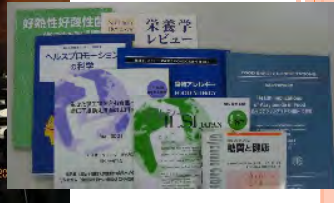
ILSIの会員数は460社（2012年度）にも及び、世界規模で活動しています。長期間の研究を要する基礎的な課題は主として研究財団の各研究所が担当します。各研究所では、それぞれの分野における科学者の協力を得て、グローバルな視点から研究テーマを決め、世界的に優れた科学者に研究を委託します。また、**地域に特有な課題への対応は世界に広がる地域支部が担当しています。**

ILSIホームページ
<http://www.ilsil.org/>

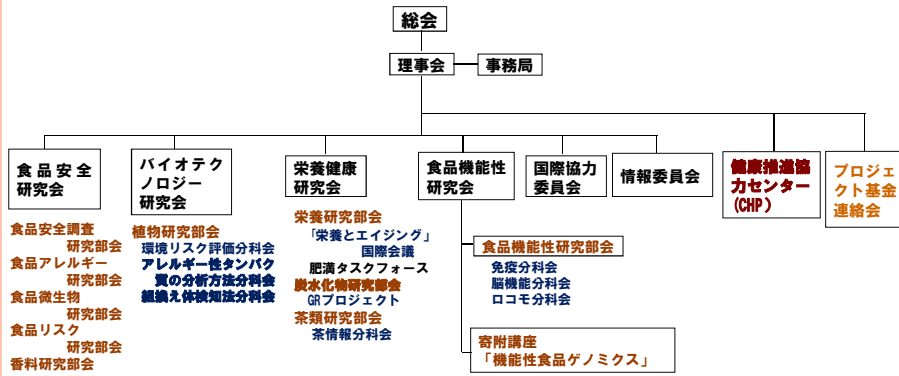
WHAT'S ILSI? (INTERNATIONAL LIFE SCIENCES INSTITUTE)



- ILSI本部
 - 支部 日本をはじめとする15の地域支部 環境保健科学研究所 (ILSI HESI)
 - 国際機関委員会 (IOC) 国際食品バイオテクノロジー委員会 (IFBIC)
 - 研究財団 GM作物の環境リスクアセスメント研究所CERA) リスクサイエンス研究所 (RSIA) 栄養・健康推進協力センター (CNHP)



ILSI Japan の組織



ILSI Japanは2001年に特定非営利活動法人（NPO法人）の認証を得ました。ILSI Japanの目的に賛同した64の団体（2012年12月現在）が活動を支援しています。会員は上記の各委員会・研究会・研究部会に自由に参加し、科学の最新情報に触れながら問題解決を図ることができます。

ILSI JAPANの活動



調査・研究活動とその成果の発表

ILSI Japanの会員は、各研究部会に参加して、内外の最近の研究動向に直接ふれ、**共通の課題を研究**。研究テーマは研究部会会員によって決定。国内外の最新のデータを各機関から収集し、討議をして、その結果を発表しています。新しい研究テーマは大学などの研究機関に研究を依頼することもあります。そして研究部会の成果を最新の科学情報として会員の方々に提供するとともに、**関連する行政、学界、産業界に提言をし、政策の基盤や研究情報の拡大に貢献**しています。

科学情報の普及

機関誌「イルシー」（季刊）を発行しているほか、研究部会による研究成果を報告書として出版しています。また、シンポジウムや講演会、セミナーシリーズを開催し、多くの方々の参加を得、**最新の正しい科学情報の普及に努め**ています。

国内外の関連機関との交流・連携

ILSI Japanが行なうシンポジウムは、国内外の関連機関と共催で開催する機会が多く、その度に国や国際機関、各種法人との連携も強まっています。コーデックスなど、国連の国際会議にオブザーバーとして参加し、情報交流、意見具申を行っています。また、本部や他の支部から刊行物がいち早く届き、関連事項についての世界の広範な最新情報を常時、入手しています。2001年7月に活動を開始したILSI CHP Japanは、アメリカの非営利法人 健康推進協力センター (ILSI CHP) と共に、世界的規模の公衆衛生に係る課題に取り組み、科学に基づいた予防・改善活動を行ってきました。国内では**Project PAN**（身体活動と栄養）、アジアでは**Project IDEA**（鉄欠乏性貧血症の撲滅活動）、**Project SWAN**（安全な水の供給と栄養・保健環境の改善）を、その分野の専門家の協力を得、適切な科学的検証を行いながら推進しています。2006年8月よりILSI Japanの一部門としてILSI Japan CHPと名称を改め、活動を続けています。

ご清聴ありがとうございました。



Regulatory Framework on Foods and Food Additives in India

ILSI Japan International Conference - Regulatory Framework on Foods and Food Additives in India, Bangladesh, Nepal and Sri Lanka-

Regulatory Framework on Food and Food Additives in India

- From the MAFF Investigation Project on the Food
Related Regulations in India -

ILSI Japan International Cooperation Committee
Ajinomoto Co., Inc.
Masanori Kohmura Ph.D

1. Food Administrative Bodies in India

Administrative body	Responsible agency	Related laws
Ministries of		
Health and Family Welfare	Food Safety and Standards Authority of India (FSSAI)	<ul style="list-style-type: none"> ● Food Safety and Standards Act, 2006 ● Food Safety and Standards Regulations, 2011 ● Food Safety and Standards Rules, 2011
Consumer Affairs, Food and Public Distribution	Bureau of Indian Standards (BIS)	<ul style="list-style-type: none"> ● The Bureau of Indian Standards Act, 1986 ● The Standards for Weights and Measures Act, 1976 ● The Standards for Weights and Measures Rules, 1977
Women and Child Development		<ul style="list-style-type: none"> ● The Infant Milk Substitutes, Feeding Bottles and Infant Food (Regulation of Production, Supply and Distribution) Act, 1992 as Amended in 2003
Agriculture		<ul style="list-style-type: none"> ● Agricultural Produce (Grading and Marking) Act, 1937 ● The General Grading and Marking Rules, 1988
Food Processing Industries		
Atomic Energy Commission	DAE	● The Atomic Energy Act, 1962
	AERB	● Atomic Energy (Control of irradiation of Food) Rules, 1996

DAE : Department of Atomic Energy.
AERB : Atomic Energy Regulatory Board

2

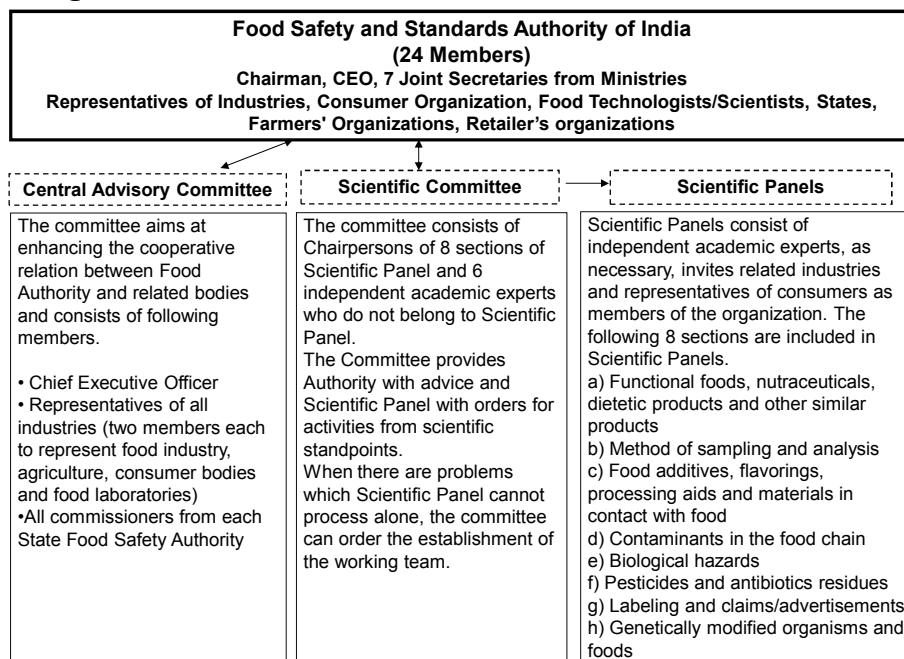
2. Food Safety and Standards Authority of India (FSSAI)

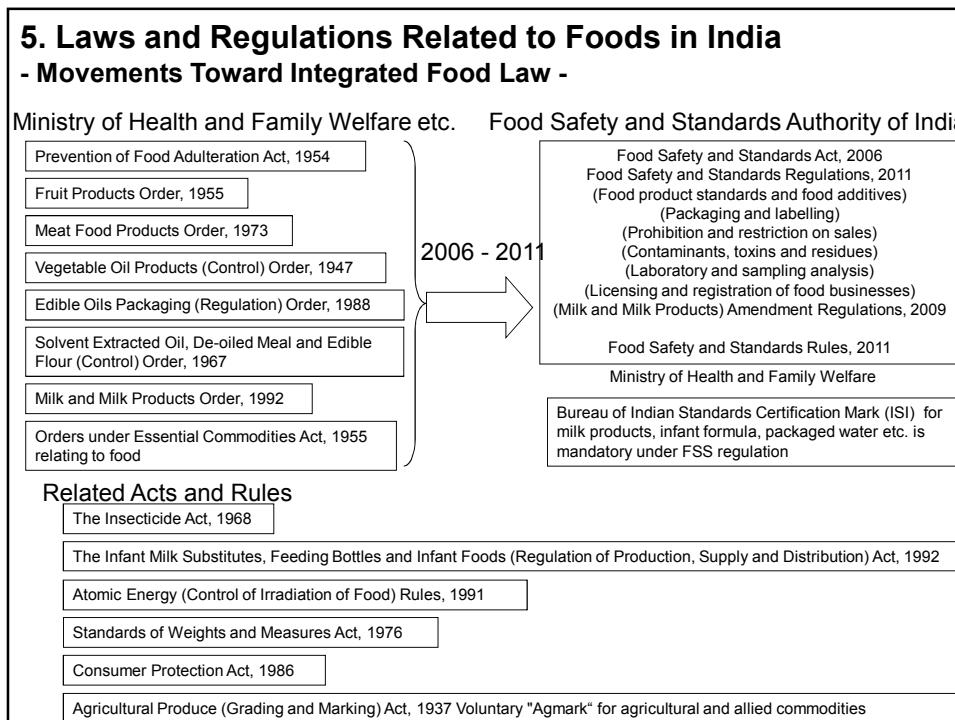
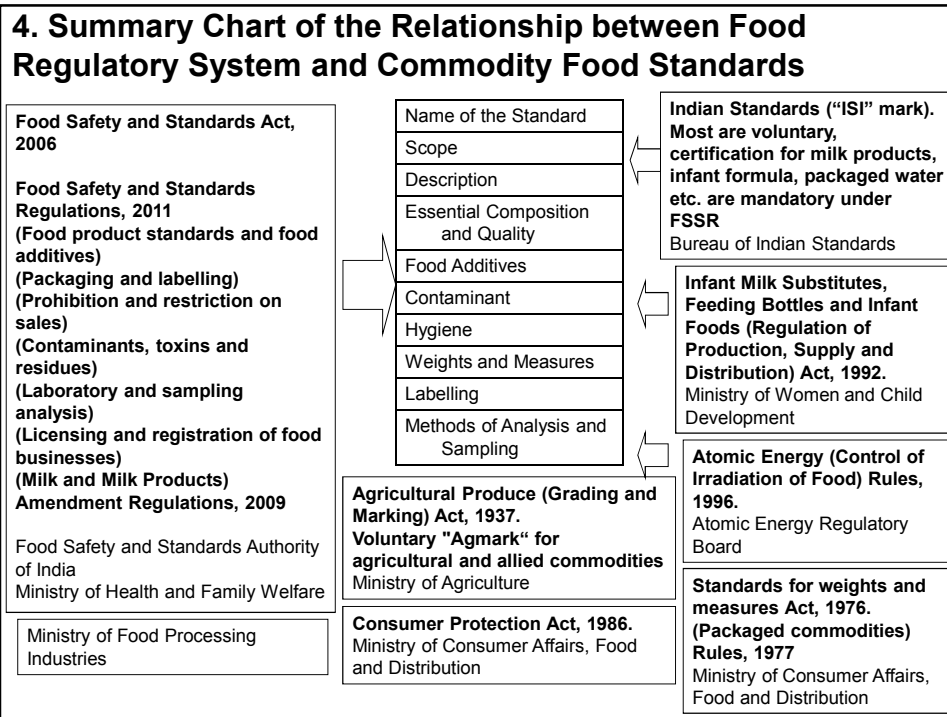
Roles of Food Safety and Standards Authority of India

1. Framing of regulations to lay down the standards and guidelines for food (食品の規格やガイドラインを制定するための規則の骨組みを作る)。
2. Laying down mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management system for food businesses (食品ビジネスの食品安全マネジメントシステムの認証に携わる認証機関認定のための仕組みとガイドラインを制定する)。
3. Laying down procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories (研究施設の認定と認定された研究施設の届出に関する手順とガイドラインを制定する)。
4. To provide scientific advice and technical support to Central Government and State Governments in the matters of framing the policy and rules in areas which have a direct or indirect bearing of food safety and nutrition (中央政府や州政府が、食品の安全と栄養に直接的あるいは間接的に関わる分野の指針や規則を立案するにあたっての科学的アドバイスや技術的サポートを行なう)。
5. Contribute to the development of International technical standards for food (食品の国際的技術基準の発展に貢献する)。
6. Promote general awareness about food safety and food standards (食品安全や食品基準についての一般の認識を高める)。

3

3. Organization Structure of FSSAI





6. Food Safety and Standards (FSS) Act, 2006

- 1. Establishment of Food Safety and Standards Authority of India (composition, functions, procedure and duties)**
- 2. General principles of food safety (not only the protection of human health, but also the protection of consumers' benefit including fair food transaction, appropriate risk management based on scientific reasons and preventive measures at appropriate level are set forth)**
- 3. General provisions as to articles of food**
 - a. Use of food additive or processing aid**
 - b. Contaminants, naturally occurring toxic substances, heavy metals, etc.**
 - c. Pesticides, veterinary drugs residues, antibiotic residues and microbiological counts**
 - d. Genetically modified foods, organic foods, functional foods, proprietary foods, etc**
 - e. Packaging and labeling of foods**
 - f. Restrictions of advertisement and prohibition as to unfair trade practices**
- 4. Provisions relating to import**
- 5. Special responsibilities as to food safety (responsibilities of the food business operators, food recall procedure)**
- 6. Analysis of food (laboratories, auditors, analysts, procedure)**
- 7. Implementing sectors and their administrations, penalties, appeal organizations**

7

Example Provisions of the FSS Act, 2006

- 3. Definitions.**
 - 4. Establishment of FSSAI.**
 - 5. Composition of FA and qualifications for appointment of its Chairperson and other Members.**
 - 6. Selection Committee for selection of Chairperson and Members of FA.**
 - 11. Central Advisory Committee.**
 - 13. Scientific Panels.**
 - 14. Scientific Committee.**
 - 15. Procedure for Scientific Committee and Scientific Panel.**
 - 19. Use of food additive or processing aid.**
 - 20. Contaminants, naturally occurring toxic substances, heavy metals, etc**
 - 21. Pesticides, veterinary drugs residues, antibiotic residues and microbiological counts.**
 - 22. Genetically modified foods, organic foods, functional foods, proprietary foods, etc.**
 - 23. Packaging and labelling of foods.**
 - 24. Restrictions of advertisement and prohibition as to unfair trade practices.**
 - 25. All imports of articles of food to be subject to this Act.**
- etc

7. Food Safety and Standards (FSS) Rules and Regulations

FSS Regulations, 2011

- Food product standards and food additives
- Packaging and labelling
- Prohibition and restriction on sales
- Contaminants toxins and residues
- Laboratory and sampling analysis
- Licensing and registration of food businesses

Enforced after 5th Aug 2011

FSS Rules, 2011

Example

2.1 - Qualification and duties
2.1.1: Commissioner of Food Safety (State Gov.)

2.1.2: Designated Officer

2.1.3: Food Safety Officer

2.1.4: Food Analyst

Enforced after 5th Aug 2011

Amendment Regulations, 2009

- Milk and Milk Products

Draft Regulations

- Food Authority's Food Recall Procedures
- Food for Special Nutritional or Dietary Uses
- Revised Energy Drinks, and Caffeine
- Revised Trans Fatty Acids in Partially Hydrogenated Vegetable Oils
- Food import
- Operationalizing the Regulation of GM Foods in India
- Labeling (claims)

8. Regulations on Food Additive

1. Definition of Food additive.

CHAPTER I, Article 3 of the FSS Act, 2006

(k) "food additive" means any substance not normally consumed as a food by itself or used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result (directly or indirectly), in it or its by-products becoming a component of or otherwise affecting the characteristics of such food but does not include "contaminants" or substances added to food for maintaining or improving nutritional qualities;

10

8. Regulations on Food Additive

2. Functional Classes

Article 2.2.2, 5 Declaration regarding Food Additives of FSS (Packaging and labeling) Regulations, 2011.

(i) For food additives falling in the respective classes and appearing in lists of food additives permitted for use in foods generally, the following class titles shall be used together with the specific names or recognized international numerical identifications: Acidity Regulator, Acids, Anticaking Agent, Antifoaming Agent, Antioxidant, Bulking Agent, Colour, Colour Retention Agent, Emulsifier, Emulsifying Salt, Firming Agent, Flour Treatment Agent, Flavour Enhancer, Foaming Agent, Gelling Agent, Glazing Agent, Humectant, Preservative, Propellant, Raising Agent, Stabilizer, Sweetener, Thickener:

11

8. Regulations on Food Additive

Chapter 3: SUBSTANCES ADDED TO FOOD in the FSS (Food Product Standards and Food Additives) Regulations, 2011.

Colouring Matter, Artificial Sweeteners, Preservatives, Anti-oxidants, Emulsifying agents, Stabilising agents, Anticaking Agents, Antifoaming agents in edible oils and fats, Release agents, Flavouring Agents, Flavour Enhancers, Sequestering Agents and Buffering Agents

12

8. Regulations on Food Additive

3. Definition of Processing aid

Article 19. Use of food additive or processing aid of the FSS Act, 2006

Explanation.- For the purposes of this section, “processing aid” means any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, used in the processing of raw materials, foods or its ingredients to fulfill a certain technological purpose during treatment or processing and which may result in the nonintentional but unavoidable presence of residues or derivatives in the final product.

13

8. Regulations on Food Additive

4. Approved Food Additives and its Use Standards

Article 19. Use of food additive or processing aid of the FSS Act, 2006

No article of food shall contain any food additive or processing aid unless it is in accordance with the provisions of this Act and regulations made thereunder.

Article 3.1.1:1) of the FSS (Food Product Standards and Food Additives) Regulations, 2011. Use of Food Additives in Food Products:

The food products may contain food additives as specified in these Regulations and in Appendix A.

Appendix A consists of 15 tables of lists of food additives for use in food categories and a list of food categories with permitted food additives.

14

8. Regulations on Food Additive

5. Food Additive Specifications

Article 3.2 of the FSS (Food Product Standards and Food Additives) Regulations, 2011. Standards of Additives

2.8: Sweetening agents including Honey. Specifications for 4 Artificial Sweeteners.

3.2.1: Food Colours. Specifications for 15 food colors.

Bureau of Indian Standards (BIS) set standards for 91 food additives. In the current regulatory frame work, BIS certification is voluntary, however, importer of specific food additives shall register to BIS.



15

8. Regulations on Food Additive

6. New Food Additive Approval

There is no clear description on approval process for new food additive or revision of use level or food category in the FSS regulations.

However, application format and summary sheet for approval of food additives was announced by the Scientific Panel on Food Additives, flavouring, processing aids and materials in contact with food on April 4th, 2012. It stated that “Applicants should apply for the approval of food additives/enhancement of permitted food additives in other food products as well as increase the existing quantity of permitted food additives in the food product in the enclosed prescribed format. The application should be addressed to Director (PA), Food Safety and Standards Authority of India”

16

8. Regulations on Food Additive

7. Labeling of Food Additives Used in Foods

Article 2.2.2: Labeling of Pre-packaged Food of FSS (Packaging and labeling) Regulations, 2011.

2. List of Ingredients, (d) Where an ingredient itself is the product of two or more ingredients, such a compound ingredients shall be declared in the list of ingredients, and shall be accompanied by a list, in brackets, of its ingredients in descending order of weight or volume, as the case may be: Provided that where a compound ingredient, constitutes less than five percent of the food, the list of ingredients of the compound ingredient, other than food additive, need not to be declared;

17

8. Regulations on Food Additive

7. Labeling of Food Additives Used in Foods (2)

Article 2.2.2: Labeling of Pre-packaged Food of FSS (Packaging and labeling) Regulations, 2011.

5. Declaration regarding Food Additives, (i) For food additives falling in the respective classes and appearing in lists of food additives permitted for use in foods generally, the following class titles shall be used together with the specific names or recognized international numerical identifications.

In addition, there are many specific labelling requirements relates to food additives

18

8. Regulations on Food Additive

8. Carry Over Of Food Additives

Article 3.1.18 of the FSS (Food product standards and Food Additives) Regulation, 2011, **Carry Over of Food Additive.**

For the purpose of the standards specified in chapter 2 of these regulation the "Carry Over" principle applies to the presence of additives such as colours, flavouring agents, anti-oxidants anti-caking agents, emulsifying and stabilising agents, and preservatives in food, as a result of the use of raw material or other ingredients in which these additives were used. The presence of contaminants is not covered by this purpose. The presence of an additive in food through the application of the carry over principle is admissible in general unless otherwise specifically prohibited in the regulations provided the total additive including the carry over through the raw material or other ingredients does not exceed the maximum amount so permitted.

19

9. Case Study

1. Instant Noodles

There is no food standard for "instant noodles" in both FSS (Food product standards and Food Additives) Regulations, 2011 and Indian Standards. Instant Noodles shall comply with the requirements set on "2.12: Proprietary Food" in FSS (Food product standards and Food Additives) Regulations, 2011.

	Food Safety and Standards Regulations 2011	Indian Standards
Scope, Description, Essential Composition and Quality Factor	FSS (Food product standards and Food Additives) regulation, 2011 2.12: Proprietary Food	
Labeling	FSS (Packaging and Labeling) regulation, 2011 2.2: Labeling 2.2.1: General Requirements 2.2.2: Labelling of Pre-packaged Food	
Food Additives	FSS (Food product standards and Food Additives) regulation, 2011 3.1: Food Additives	
Contaminant	FSS (Contaminants, Toxins and Residues) regulation, 2011 2.1: Metal Contaminants, 2.2: Crop contaminants and naturally occurring toxic substances	
Hygiene		

20

9. Case Study

FSS (Food product standards and food additives) Regulations, 2011

2.12: Proprietary Food

2.12.1

1) Proprietary food means a food that has not been standardized under these regulations

2) In addition to the provisions including labelling requirements specified under these regulations, the proprietary foods shall also conform to the following requirements, namely:—

(i) the name describing as clearly as possible, the nature or composition of food and/or category of the food under which it falls in these regulations shall be mentioned on the label

(ii) the proprietary food product shall comply with all other regulatory provisions specified in these regulations and in Appendices A and B.

Veg and Non-Veg

1.2: Definitions—1.2.1: In these regulations unless the context otherwise requires:

7. “Non-Vegetarian Food” means an article of food which contains whole or part of any animal including birds, fresh water or marine animals or eggs or products of any animal origin, but excluding milk or milk products, as an ingredient;

11. “Vegetarian Food” means any article of Food other than Non- Vegetarian Food as defined in regulation 1.2.1 (7).

21

9. Case Study

2.2.2: Labelling of Pre-packaged Foods

4. Declaration regarding Veg or Non veg –

(i) Every package of “Non Vegetarian” food shall bear a declaration to this effect made by a symbol and colour code as stipulated below to indicate that the product is Non-Vegetarian Food. The symbol shall consist of a brown colour filled circle having a diameter not less than the minimum size specified in the Table mentioned in the regulation 2.2.2 (4) (iv), inside a square with brown outline having sides double the diameter of the circle as indicated below:

(ii) Where any article of food contains egg only as Non-Vegetarian ingredient, the manufacturer, or packer or seller may give declaration to this effect in addition to the said symbol.

(iii) Every package of Vegetarian Food shall bear a declaration to this effect by a symbol and colour code as stipulated below for this purpose to indicate that the product is Vegetarian Food. The symbol shall consist of a green colour filled circle, having a diameter not less than the minimum size specified in the Table below, inside the square with green outline having size double the diameter of the circle, as indicated below:

22

9. Case Study

2. Carbonated Soft Drinks

There are two standards relevant to the “Carbonated Soft Drinks” in FSS (Food product standards and food additives) Regulations, 2011.

2.3.30 Carbonated Fruit Beverages or Fruit Drinks

2.10.6 Beverages Non-Alcoholic-Carbonated

There are two standards relevant to the “Carbonated Soft Drinks” in Indian Standards

IS 2346-1992 Carbonated Beverages

IS 12544 1988 Carbonated Beverages - Non-alcoholic Beer

	Food Safety and Standards Regulations 2011	Indian Standards
Scope, Description, Essential Composition and Quality Factor	FSS (Food product standards and Food Additives) regulation, 2011 2.3.30: Carbonated Fruit Beverages or Fruit Drinks 2.10.6: Beverages Non-Alcoholic-Carbonated	IS 2346-1992 Carbonated Beverages –Specification
Labeling	FSS (Packaging and Labeling) regulation, 2011 2.2: Labeling 2.2.1:General Requirements 2.2.2:Labelling of Pre-packaged Food	IS 12544 1988 Carbonated Beverages - Non-alcoholic Beer –Specification
Food Additives	FSS (Food product standards and Food Additives) regulation, 2011 3.1: Food Additives Appendix A:List of Food Additives	
Contaminant	FSS (Contaminants, Toxins and Residues) regulation, 2011 2.: Metal Contaminants, 2.2: Crop contaminants and naturally occurring toxic substances	
Hygiene	FSS (Food product standards and Food Additives) regulation, 2011 Appendix B:Microbiological Requirements	

23

9. Case Study

2. Carbonated Soft Drinks

Method of Analysis :

Regulation applied	Item	Specification	Method of analysis	References
FSS (Food product standards and food additives) Regulation 2011 Carbonated beverage-Specification (IS 2346 : 1992 (reaffirmed 2009))	Arsenic	Max. 0.1 mg/kg		IS 11124 : 1984
	Lead	Max. 0.5 mg/kg		IS 6854 : 1973
	Copper	Max. 1.5 mg/kg		IS 6854 : 1973
	Iron	Max. 0.5 mg/kg		IS 6854 : 1973
	Total plate count	Not more than 50 cfu/ml		IS 5402 : 1969
	Coliform count	Absent in 100ml		IS 5401 : 1969
	Yeast and mold count	Not more than 2 cfu/ml		IS 5403 : 1969
	Saccharin	-	Volumetric method HPLC method	IS 2346 : 1992
	Gas volume	-		IS 2346 : 1992

9. Case Study

2. Carbonated Soft Drinks

Sampling methods

Regulation applied	No. of Bottles in the Production Lot	No. of Bottles to be selected	
		Microbiological tests	Other tests
FSS (Food product standards and food additives) Regulation 2011 Carbonated beverage-Specification (IS 2346 : 1992 (reaffirmed 2009))	Up to 1,300	12	18
	1,301 to 3,200	18	24
	3,201 to above	24	30
	References : IS 2346 : 1992 (Reaffirmed 2009) Annex D (Clause 9.1) - Bottles to be selected for testing shall be chosen at random utilizing random number tables (see IS 4905 : 1968).		

9. Case Study

3. Prepared Frozen Foods

There is no food standard for "Prepared Frozen Foods" in both FSS (Food product standards and food additives) Regulations, 2011 and Indian Standards.

"Prepared Frozen Foods" shall comply with the requirements set on "2.12:

Proprietary Food" in FSS (Food product standards and Food Additives) Regulations, 2011.

	Food Safety and Standards Regulations 2011	Indian Standards
Scope, Description, Essential Composition and Quality Factor	FSS (Food product standards and Food Additives) regulation, 2011 2.12: Proprietary Food	
Labeling	FSS (Packaging and Labeling) regulation, 2011 2.2: Labeling 2.2.1: General Requirements 2.2.2: Labelling of Pre-packaged Food	
Food Additives	FSS (Food product standards and Food Additives) regulation, 2011 3.1: Food Additives	
Contaminant	FSS (Contaminants, Toxins and Residues) regulation, 2011 2.1: Metal Contaminants, 2.2: Crop contaminants and naturally occurring toxic substances	
Hygiene		26

9. Case Study

4. Cow's Milk

There is the standard relevant to the "Cow's Milk" in FSS (Food product standards and food additives) Regulations, 2011.

2.1.1 Milk

There are two standards relevant to the "Cow's Milk" in Indian Standards.

IS 4238:1967 Sterilized Milk

IS 13688:1999 Packaged Sterilized Milk

	Food Safety and Standards Regulations 2011	Indian Standards
Scope, Description, Essential Composition and Quality Factor	FSS (Food product standards and Food Additives) regulation, 2011 2.1: Dairy Products and Analogues 2.1.1: Milk	IS 4238-1967 Specification for Sterilized Milk
Labeling	FSS (Packaging and Labeling) regulation, 2011 2.2: Labeling 2.2.1: General Requirements 2.2.2: Labelling of Pre-packaged Food	IS 13688:1999 Packaged Pasteurized Milk -Specification
Food Additives	FSS (Food product standards and Food Additives) regulation, 2011 3.1: Food Additives Appendix A: List of Food Additives Table 14 List of Food Additives for use in Milk products	
Contaminants	FSS (Contaminants, Toxins and Residues) regulation, 2011 2.1: Metal Contaminants, 2.2: Crop contaminants and naturally occurring toxic substances, 2.3: Residues	
Hygiene	FSS (Food product standards and Food Additives) regulation, 2011 Appendix B: Microbiological Requirements Table 2 Microbiological Parameter for Milk products	

27

9. Case Study

4. Cow's Milk

Sampling methods : Sterilized Milk

Regulation applied	No. of Containers in the Production Lot	No. of Containers to be selected	
		Bacterial spores	Creaming index, Turbidity and Sterility
FSS (Food product standards and Food Additives) regulation s, 2011 Specification for Sterilized Milk (IS 4238 : 1967 (reaffirmed 2010))	Up to 25	1	1
	26 to 100	2	5
	101 to 500	3	7
	501 to 1,000	3	9
	1,001 to 5,000	4	11
	5,001 to above	4	13
	References : IS 4238 : 1967 (Reaffirmed 2010) Appendix F (Sampling of Sterilized Milk)		

9. Case Study

4. Cow's Milk

Method of Analysis : Sterilized Milk

Regulation applied	Item	Specification	Method of analysis	References
FSS (Food product standards and Food Additives) Regulations, 2011 Specification for Sterilized Milk (IS 4238 : 1967 (reaffirmed 2010))	Creaming index	Max. 20	Centrifugation	IS 4238 : 1967 (Reaffirmed 2010)
	Turbidity test	To conform to test		IS 4238 : 1967 (Reaffirmed 2010)
	Sterility (a)	pH variation on 7days incubation : Max 0.3		IS 4238 : 1967 (Reaffirmed 2010)
	Sterility (b)	Titrateable acidity variation on 7 days incubation : Max. 0.02 g	Titration	IS 4238 : 1967 (Reaffirmed 2010)
	Bacterial Spores - aerobic	Max. 5 colonies / ml		IS 4238 : 1967 (Reaffirmed 2010)

Acknowledgement

This investigation was conducted by the project team for the investigation of Indian food regulation of ILSI Japan International Cooperation Committee in collaboration with ILSI India and supported by the Ministry of Ministry of Agriculture, Forestry and Fisheries.

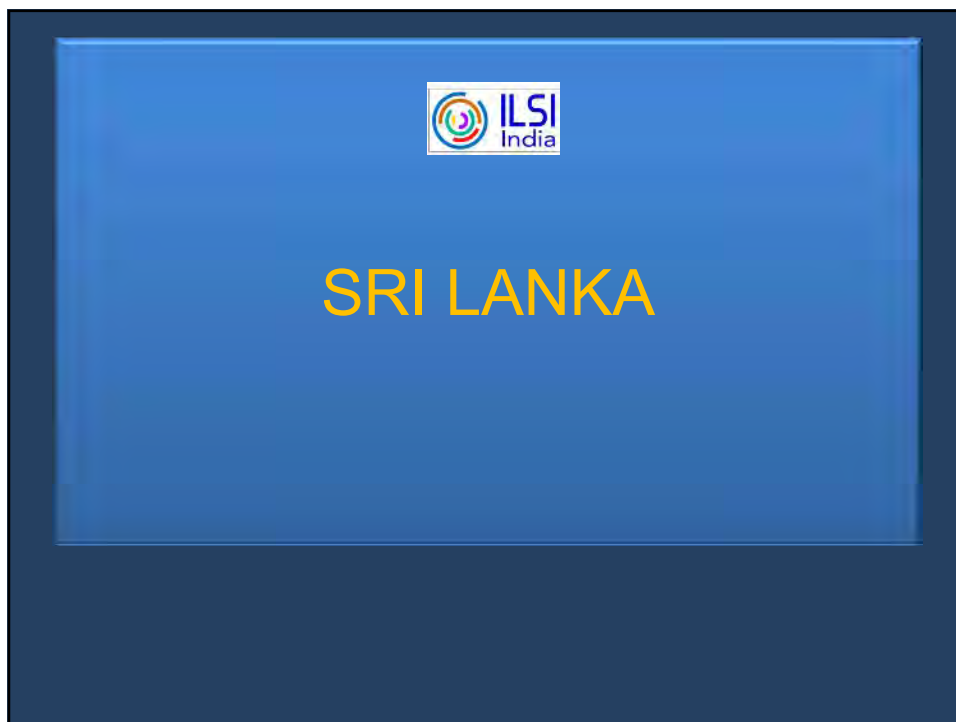
The project team for the investigation of Indian food regulation of ILSI Japan International Cooperation Committee

Fumiko Sekiya, Takasago International Corp.
Hiroaki Hamano, ILSI Japan
Kiyohisa Kaneko, Coca-Cola(Japan)Company Ltd.
Masanori Kohmura, Ajinomoto Co., Inc.
Matsuhiro Katashima, Kao Corp.
Ryouichi Akahoshi, Yakult Honsha Co. Ltd.
Toshihisa Oota, Yakult Honsha Co. Ltd.
Umeki Youichro, Du Pont Kabushiki Kaisha
Yoshiharu Kuma
Yumi Asada, Unilever Japan Service

30

**Thank you for your
kind attention**

31

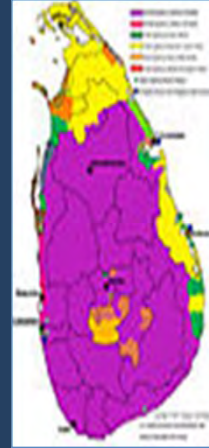


Country Fact Sheet



SRI LANKA

- **Sri Lanka is an Island in the Indian Ocean, off the south-eastern coast of India.** It is about the size of Ireland. It is about 28 kilometers (18 mi.) .
- **Population is about 20 million.** The Sinhalese, make up 74.9% of the population . Tamils are 15.4% . Most Sinhalese are Buddhist; most Tamils are Hindu.
- **Official Languages: Sinhala and Tamil.**



Administrative Authorities



Administrative Authorities in Sri Lanka as shown in the following Table are responsible for Food Administration of food categories and related stage of production.

Sector	Products	Imported	Domestic
Ministry Of Health/ Directorate General of Health Services	Food Products	Food Control Administration of *MoH (FCA)	FCA
Ministry/Department of Agriculture (MOA)	Primary products of agriculture	Food Control Administration of *MoH (FCA)	MOA and FCA
Department of Animal Production & Health (DAP &H)	Animal Husbandry Milk Products	DAP&H and FCA	DAP&H and FCA
Coconut Development Authority (CDA)	Coconuts & Their Products	FCA and CDA	FCA and CDA
Tea Board (TB)	Manufactured Tea	FCA and TB	FCA and TB
Ministry/Department of Fisheries (MDF)	Fish and Fish Related Products	FCA	MDF and FCA
Excise Department (ED)	Alcoholic Beverages	ED/Customs	ED
Ministry of Local Government (MoLG)	General Food Safety and Standards (implementation)		
Sri Lanka Standards Institution (SLSI) Established Under Sri Lanka Standards Institution Act No. 6 of 1984.	Formulation Of Voluntary & Mandatory Standards General National Standards Of Consumer And Industrial Products Including Food	SLSI	FCA and SLSI
Consumer Affairs Authority (CAA) Established Under the Consumer Affairs Authority Act No. 9 of 2003	Promotion of Effective Completion and Protection of Consumers: Regulation Of Internal Trade	FCA	CAA



Director General of Health Services

The Chief Food Authority is Director General of Health Services under Ministry of Health. It is the apex body responsible for the country's Food Control Administration (FCA). The Food Advisory Committee recommends the standards and regulations to be adopted by the Government.

Sri Lanka Standards Institute

Sri Lanka Standards institute (SLSI) plays an integral role with the FCA and in formulation of National Standards under the Food Act. The Standards of the SLSI are mostly voluntary. Some of them are declared mandatory for verification of standard parameters at the point of import.

The SLSI has mutual agreements with standards setting bodies of the exporting countries that certify the products exported from selected countries. Based on the certification of those bodies and verification checks carried out at national level the SLSI releases those products for further inspection and verification of FCA as far as food products are concerned

MAIN LEGISLATION

i) The Food Act No. 26 of 1980

•The Food Act No. 26 of 1980 amended by Food (Amendment) Act No. 20 of 1991 is the most important regulation and is administered by FCA of Ministry of Health.

Part I of the Food Act provides for prohibition in respect of food related to:

- a)Additives.
- b)Fitness for Human Consumption.
- c)Cleanliness.
- d)Adulteration.
- e) Sanitary conditions.

Part II of the Food Act includes provisions for establishment of Administration :

- a)Establishment of a Food Advisory Committee (FAC).
- b)Designating Director General of Health Services as the Chief Food Authority (CFA).
- e)Providing for Food Authorities under the Food Act; viz. Director General of Customs for imported foods; Chief Medical Officer of Health (CMOH) for the Colombo Municipal area; and Local Authorities (Urban Councils and Pradheshiya Sabhas etc.).

Part III of the Food Act provides for nature of offences under the Food Act and punishment.

Part IV of the Food Act provides pprotection for action taken in good faith; fines etc.

ii) Regulations have been made Under Section 32 Of
The Food Act

- 1) Miscellaneous Regulation
- 2) Hygiene
- 3) Food Standards
- 4) Non-nutritive sweeteners
- 5) Milk Standards
- 6) Additional Approved Analyst Regulations
- 7) Iodization of Salt
- 8) Microbiological Analyst
- 9) Labeling & Miscellaneous
- 10) Preservatives
- 11) Genetically Modified Foods
- 12) Bread Standards
- 13) Food (Labeling & Advertising) Regulation – 2005
- 14) Irradiation
- 15) Coloring Substances
- 16) Bottled or Package Water
- 17) Adoption of SL Standards
- 18) Antioxidants

Summary of Food Standards

- About 70 Commodities are covered under the Food Standards as per Regulations of 1991.
- These composite regulations are being gradually divided into separate categories such as 'oils and fats', Cereals, Pulses and Legumes, Spices and condiments etc., keeping in line with the Codex Guidelines and Standards.
- Most of these Regulations are in formulation stages and they will be published in Sinhala, Tamil and English languages once they are finalized by the Department of Legal Draftsman.

Laws and Regulations Related to Food Additives

OVERVIEW

▪According to Food Additives (General) Regulations yet to be published (currently in draft form) "Food additive" means any safe substance that is intentionally introduced into in a food in small quantities.

▪Food Additives can be used to affect the food's keeping quality, texture, consistency, appearance, odour, taste, alkalinity or acidity or to serve any other technological function.

They include :

- Preservative,
- Coloring Substance,
- Flavouring Substance,
- Flavour Enhancer
- Antioxidant,
- Emulsifying And Stabilizing Agent,
- Sweetener And Food Conditioner,

But do not include nutrient supplement, incidental constituent or common salt.

Food Additives: Highlights Of Provisions

- Functional classes of Food Additives as per the Table provided by the Codex are considered in the Sri Lankan standards with the relevant INS numbers.
- **Permitted Food Additives are prescribed with their Maximum Limits under the Food Additives Regulations in Sri Lanka. They are invariably based on the Codex Limits prescribed.**
- The recommended list of the Codex and evaluations carried out by Joint Expert Committee on Food Additives (JECFA) is consulted before approval of any Food Additive in Sri Lanka.
- **The labelling of food additives is governed by the Food (Labelling & Advertising) Regulation – 2005 in Sri Lanka.**
- Assessment of food additives as such is not carried in Sri Lanka and there has been no need for such assessments.

FLAVORS

As Per Draft Flavor Regulations



CATEGORIES

Negative List of Flavors

i. "Natural Aromatic Raw Material"	i. Aloin.
ii. "Natural Flavouring Concentrate"	ii. Beberine.
iii. "Natural Flavouring Substance"	iii. Beta- Azarone.
iv. "Nature-Identical Flavouring Substance"	iv. Cade oil.
v. "Artificial Flavouring Substance"	v. Calamus oil.
	vi. Coumarin and dihydrocoumarin.
	vii. Diethylene glycol.
	viii. Monoethyl ether.
	ix. Ethyl Methyl Ketone.
	x. Ethyl-3-Phenyglycidate.
	xi. Eugeny methyl ether.
	xii. Methyl Naphthyl ketone.
	xiii. Saffrole and Isosaffrole.
	xiv. Santonin.
	xv. Sassafras oil.
	xvi. Thujone, Isothujone, alpha and betathujone.
	xvii. Tonka bean.



There are a number of food products in which flavour enhancers are prohibited as per the draft regulations Schedule III.

List Of Plant Or Animal Sources For Flavoring Agents.

No such classification has been made in any of the regulations of Sri Lanka although the following provision has been made in the Food (Additives – Flavoring and Flavor enhancers) Regulations (Draft):

"The label on or attached to a package of a natural flavoring shall include the statement "NATURAL (here insert description of flavor) FLAVORING" or a similar statement."

Processing Aids

Currently NO Regulation is in place.

The Inventory of Processing Aids compiled and adopted by the Codex Alimentarius Commission is consulted.

- The inventory contains the following:
- Category – functional effect classification.
- Processing Aid – the chemical name and description of the substance used.
- Area of Utilization.
- Level of Residues.
- Interaction with food.
- JECFA evaluation.

Carry Over

- “Carry Over” is defined as the presence of food additives in food as a result of the use of raw material or other ingredients in which these additives were used.

PRESERVATIVES



- The present regulation for Food Preservatives is under revision.
- Schedule 1 of “Food Preservative Regulation” provides list of Permitted Food Preservatives along with INS number. 11 Food preservatives are permitted.

Column 1		Column II	
Permitted Preservative	INS No.	Alternative form in which the permitted preservative may be used (to be calculated as the permitted preservative shown in Column I)	INS No.
1. Sorbic acid	200	Sodium sorbate	201
		Potassium sorbate	202
2. Benzoic acid	210	Calcium sorbate	203
		Sodium benzoate	211
		Potassium benzoate	212
		Calcium benzoate	213
3. Sulphur dioxide	220	Sodium sulphite	221
		Sodium hydrogen sulphite	222
		Sodium metabisulphite	223
		Potassium metabisulphite	224
		Potassium sulphite	225
		Potassium hydrogen sulphite	228
		Calcium sulphite	226
Calcium hydrogen sulphite	227		
4. Biphenyl, Diphenyl	230		
5. Orthophenylphenol	231	Sodium orthophenylphenate	232
6. Nisin	234		
7. Potassium nitrite	249		
8. Sodium nitrite	250		
9. Sodium nitrate	251		
10. Potassium nitrate	252		
11. Propionic acid	280	Sodium propionate	281
		Calcium propionate	282
		Potassium propionate	283

Schedule II provides list of articles of Food which may contain Permitted Preservative and the Nature and Quantity of the Permitted Preservative in each case.

Permitted COLORS

A. Synthetic Colors As Per Coloring Substances Regulations

Color	Common Name	Color Index	INS Number
Red	Carmosine	14720	122
	Ponceau 4R	16255	124
	Erythrosine	45430	127
Yellow	Sunset Yellow FCF	15985	110
	Tartrazine	19140	102
Blue	Indigo Carmine	73015	132
	Brilliant Blue FCF	42090	133
Green	Green S	44090	142

Synthetic dyes specified in Table 1 shall conform to the following standard-

Pure dye minimum	85.0%
Water insoluble matter maximum	0.1%
Subsidiary dye maximum	4.0%
Ether extractable matter maximum	0.2%
Intermediates maximum	0.5%

B. Other Permitted Coloring Substances As Per Coloring Substances Regulations

<i>INS Number</i>	<i>Natural coloring substance</i>	<i>Color index</i>
100	Curcumin	75300
120	Cochineal (Carminic Acid)	75470
140	Chlorophyll	75810
150b	Caramel	
160a	Carotenes (alpha, beta or gamma)	75130
160b	Annato	75120
160c	Capsanthin or capsorubin	
160d	Lycopene	75125
160e	Beta-apo-8' – carotenal caroteonic acid	
161a	Flavoxanthin	75135
162	Beetroot red (betanin)	
163	Anthocyanins	
171	Titanium dioxide	77891

Commodity Standards Case Studies

1. Instant Noodles

- There is no standard for Instant noodles under the Food Act – this is not even considered as a possibility in the near future. SLSI is preparing draft standards. The texts are not yet available.
- **Reference can only be given to CODEX STAN 249-2006 which would be taken into consideration as a benchmark standard if and when such a standards framed.**

2. Carbonated Soft Drinks

- There is standard for Carbonated Soft Drinks. However SLSI is revising it and it will become the de facto standard under the Food Act once the standard is published under Food Act.

SLS 183



The draft SLS 183 prescribes the requirements and methods of sampling and testing for carbonated beverages and formulated caffeinated beverages. There are detailed requirements for ingredients to be used, flavors, preservatives, labeling, packaging, sampling and maintaining requirements for hygiene.

It allow:

➤ **Non-nutritive sweeteners:**

Aspartame	-600 mg/l(max)
Acesulfame-I	-350 mg/l(max)
Sucralose	-300 mg/l(max)
Neotame	- 20 mg/l(max)

➤ **Caffeine in Carbonated Beverages:** 150 mg/l when tested in accordance with the method prescribed in **AOA 979.08**.

➤ **Caffeine in Formulated Caffeinated Beverage:** Not less than 100 mg/l when tested in accordance with the method prescribed in **AOA 979.08**.



The formulated caffeinated beverages can contain:

- Thiamine
- Riboflavin
- Niacin
- Vitamin B₆
- Vitamin B_{1 2}
- Pantothenic acid
- Taurine
- Glucurcuronolactone
- Inositol

3. Prepared Frozen Foods

No standards relating to prepared frozen foods either under the Food Act or under the SLSI has been prepared and published so far.

4. Cow's Milk

There are definition and standards for Cow's Milk under the Food Act . These are being revised as per Draft Food (Milk and Milk Products) Regulations with Legal Departments. The requirements for additives and labeling are included in the regulations. Following categories of Cow's Milk are included:

1. Milk/Liquid Milk	8. Ultra Heat Treated Milk
2. Raw Or Fresh Liquid Milk	9. Flavored Milk
3. Standardized Milk	10. Recombined Milk
4. Semi-skimmed Milk Or Low Fat Milk	11. Reconstituted Milk
5. Skimmed Milk Or Non Fat Milk	12. Reconstituted Skimmed Milk
6. Pasteurized Milk	13. Toned Milk
7. Sterilized Milk	14. Lactose Hydrolyzed Milk

Shelf Life of Imported Food Items Under Food Act



- The Regulation specifies that all items of food imported into Sri Lanka shall at the point of entry into Sri Lanka, possess a minimum period of sixty per centum (60%) of unexpired shelf life.
- **Provided that the shelf life period specified above, shall not be enforced in respect of imported fresh fruits and vegetables and potatoes which have not been peeled or cut.**
- The period of shelf life of an item of imported food shall be determined on the basis of the date of manufacture and the date of expiry as declared by the manufacturer of the product and which is depicted on the label attached thereto
- For the purposes of these regulations, the expression "end of shelf life" shall be identified by the use of the words "date of expiry", "best before", "use by" or "use before" or other similar words which convey this meaning and which are used by a manufacturer of any food item being imported into Sri Lanka.
- For the purpose of these regulations "shelf life" means the period of time between the date of manufacture and its usability by the consumer, during which time the product is safe for human consumption and is of satisfactory quality in terms of nutritional value, flavor, texture and appearance.



BANGLADESH

Bangladesh

Officially The People's Republic of Bangladesh (গণ জাতী)

- Bangladesh is a country in **South Asia**. It faces the **Bay of Bengal** to its south, and is bordered by **India** on the north, west and east, as well as **Burma (Myanmar)** on the southeast.
- Bangladesh has the highest population density among large countries, 1,237.51 persons per square kilometer, and 12th overall, when small countries and city-states are included.¹
- Bangladesh has 7th largest population in the world - About 164.4 million.
- About 90% of Bangladeshis are **Muslims** and the remainder are mostly **Hindus**.
- Official language: **Bengali** (also known as Bangla).



Introduction To Regulatory Framework For Foods

- Bangladesh is yet to develop a unified Food Safety Administration System and to formulate a Food Safety Policy. But it has a National Food and Nutrition Policy where attention has been given on food safety.
- Significant activities in Food Safety and Quality Control are going on in the country. A number of Ministries, Departments and Agencies are involved in these activities with a major responsibility of the Ministry of Health and Family Welfare (MOHFW) which has a unique infrastructure to deliver its services throughout the country.

Major Stakeholder Ministries And Departments For Food Control

Food control in Bangladesh is a multi-sectorial responsibility.

Sl. No	Ministry	Department/Organization	Major activities
1.	Ministry of Agriculture	Plant Protection Wing, DAE	<ul style="list-style-type: none"> Phyto Sanitary certificate for Import/Exported plants/plant products Pesticide Use Control Fertilizer Use Control
2.	Ministry of Food	Directorate General of Food (DGF)	<ul style="list-style-type: none"> Quality Control of PFDS, Stock, Procured Food grains/Food Stuff, Imported food etc. Food Control in the Market (not doing at present)
3.	Ministry of Health & Family Welfare	Directorate General of Health; District & Upazila Health Administration and Institute of Public Health.	<ul style="list-style-type: none"> Food Quality and Sanitation Control in Upazila/District level Testing
4.	Ministry of LGRD	City Corporation & Pourashava Health Units	Have Sanitary Inspector, Labs and Public Analyst for food quality control in their command areas.
5.	Ministry of Fisheries & Livestock	A) Department of Fisheries (FIQC Wing) B) Department of Livestock	<ul style="list-style-type: none"> Fish Quality Control & Certification for export Same for the domestic market Animal Health Animal Product Imported Animal
6.	Ministry of Industries	BSTI	<ul style="list-style-type: none"> Frame Standards of Food Products Testing & Certification Marks and Surveillance.
7.	Ministry of Science, Information and Communication Technology	BAEC IFST, BCSIR	Test Radiation level of Imported Food items; Pesticides Residues Testing of Food Items; Research and Development
8.	Ministry of Education	DG, Primary, DG, Secondary, Text Book Board, Universities	Food safety, Nutrition & Environmental issues in the text book of all level of education
9.	Ministry of Information	PIB BTV Radio Bangladesh	Broad cast issues for awareness building
10.	Ministry of Home	Bangladesh Police	Assist the Inspection Agencies
11.	Ministry of Law, Justice & Parliamentary Affairs	-	Formulation, Vetting, Parliamentary Approval etc.

Major Laws & Regulations

There are several laws in Bangladesh for maintaining health and safety standards but there are 2 major regulations as follows:

1) The Bangladesh Pure Food Ordinance, 1959 Under Ministry of Health And Family Welfare

This is an ordinance to provide better control of the manufacture and sale of food for human consumption. Now, this Ordinance is under revision as 'The Bangladesh Pure Food (Amendment) Act'. Under this Act, it has been proposed to constitute a National Food Safety Council, headed by the Ministry of Health and Family Welfare as well as to establish Food Courts.

AND

The Bangladesh Pure Food Rules, 1967

The Pure Food Rules contain standards for 107 mandatory generic food standards. Now, these are under revision.

(2) The Bangladesh Standards And Testing Institution Ordinance, 1985 Amended By The Bangladesh Standards And Testing Institution (Amendment) Act, 2003 Under Ministry Of Industry

Under the Ordinance, the government has established the Bangladesh Standards and Testing Institution (BSTI). It certifies the quality of commodities, materials, whether for local consumption or for export and import.

POINTS TO NOTE

- All standards issued under Pure Food Rules are mandatory in nature and are enforced by BSTI.
- Carbonated water standards have been formulated and enforced under BSTI. These standards are based on Indian as well as CODEX guidelines.
- BSTI has adopted 153 Codex standards for food testing.

- **190 food standards developed by BSTI of which 52 should have compulsory certification marks.**
- **28 Codex standards have been adopted as Bangladesh standards.**
- **The BSTI conducts Surveillance including Surprise Inspections and tests Samples At The BSTI Laboratory**
- **BSTI is the legal entity for certification of products and services under its Marks certification scheme.**
- **The legal metrological testing facility is under the BSTI management.**
- **Most of the imports and exports requirements are covered under BSTI mandate. For specific inquiries BSTI need to be consulted. BSTI has provided regional testing facilities in the ports as well main business centers.**

Related Laws And Regulations

- Bangladesh - New food safety laws 17 Jan 2010
- [The Cantonments Pure Food Act - 19/07/1966](#)
- [The Pure Food Ordinance - 14/10/1959](#)
- [The Animal Slaughter \(Restriction\) and Meat Control Act - 23/04/1957](#)
- [The Food \(Special Courts\) Act - 13/11/1956](#)
- [The Seed Rules - 08/03/1998](#)
- [Protection and Conservation of Fish Rules / Act - 17/10/1985](#)
- [The Breast-Milk Substitutes \(Regulation of Marketing\) Ordinance - 24/05/1984](#)
The Ordinance aims at protection and encouragement of breastfeeding, banning advertising, import, distribution and sale of breast-milk substitutes.
- [The Marine Fisheries Rules - 05/09/1983](#)
- [The Marine Fisheries Ordinance - 19/07/1983](#)
- [The Fish & Fish Products \(Inspection & Quality Control\) Ordinance - 17/05/1983](#)
- [The Importers, Exporters and Indenters \(Registration\) Order - 22/10/1981](#)
- [The East Pakistan Fisheries \(Protection\) Ordinance - 24/03/1959](#)

Laws And Regulations On Food Additives

Overview

- No definite description exists under Bangladesh Pure Food Rules 1967 on Food Additives.
- There are provisions for use of Colors, Flavors, Preservatives and Sweeteners.
- Functional Classes have been prescribed.
- Stabilizers or emulsifying agents are permitted.
- Antioxidants are permitted.

Flavors Under Pure Food Rules

- There is definition for Flavoring Compounds in food .
- Foods containing Flavors have to be labeled.
- Food containing added natural flavouring compounds shall be labelled in the legend with 'NATURAL FLAVOUR' or 'CONTAIN NATURAL FLAVOURING' provided that only those flavouring compounds which have been obtained from fruits or plants by extraction with suitable harmless solvents or by distillation or by expression, or by any other suitable process are used.
- Food containing artificial flavouring compound shall be labelled with the legend 'ARTIFICIAL FLAVOUR' or 'IMITATION FLAVOUR' provided that where a food contains a mixture of both natural and artificial flavouring compounds it shall be labelled as 'ARTIFICIAL FLAVOUR' provided further that those flavoring compounds which have been obtained by Chemical synthesis shall be considered as artificial.

Processing Aids

No description available under the Bangladesh Pure Food Laws 1967.

Carry Over

No description available under the Bangladesh Pure Food Laws 1967.

Functional Classes

Under Bangladesh Pure Food Laws, 1967, following functional classes of foods Additives have been listed:

List Of Food Categories

- Milk and Milk Products.
- Edible Oils and Oil Products.
- Tea, Coffee, Roasted Coffee and Grounded Coffee.
- Sugars and Sugary Products
Honey.
- Food Grains, Cereals and Their Products.
- Starchy Products.
- Non Alcoholic Beverages.
- Spices.
- Fruits, Vegetables and Miscellaneous Products.
- Edible Fats.
- Biscuits, Bread and Confectionery Product.
- Dried Fish.
- Ice.

Additives

- Flavoring Agents.
- Coloring Matters.
- Class I And Class II Preservatives.
- Antioxidants.
- Stabilizers.
- Non Nutritive Constituents.
- Common Salt.
- Baking Powder.
- Edible Gelatin

Colouring Matter In Food

Coal-tar Dyes



<u>Colour Index No.</u>	<u>Colour Index Name</u>	<u>Common Name</u>	<u>Chemical Class</u>
73015	Food Blue 1	Indigo Carmine	Indigoid
42090	Food Blue 2	Brilliant Blue F.C.F	Triarylmethane
69800	Food Blue 4	Indanthrone	Anthraquinone
42051	Food Blue 5	Patent Blue V	Triarylmethane
42640	Food Violent 2	Violet 6b	Triarylmethane
42580	Food Violent 3	Violets B.N.P.	Do.
42085	Food Green 1	Sulpho Green 2 B.A.	Do.
42095	Food Green 2	Acid Brilliant Green	Do.
42053	Food Green 3	A.F. Green No. 3	Do.
15985	Food Yellow 3	Sunset Yellow F.C.F	Monoazo
19140	Food Yellow 4	Tartrazine	Do.
.....	Food Brown 1	Brown F.K.	Disazo
.....	Food Brown 2	Chocolate Brown	Monoazo
		F.B.	
20285	Food Brown 3	Chocolate Brown	Disazo
		H.T.	
14700	Food Red 1	Ponceau S.X.	Monoazo
16185	Food Red 9	Amaranth	Do.
45430	Food Red 14	Brythrosine B.S.	Xanthene
28440	Food Black 1	Black P.N.	Disazo

*The colour index, second edition, 1956, Society of Dyers and Colorists, England.



- The maximum limit of permissible colour which may be added to any food shall be one grain per pound of food.
- The following natural colouring matters may be used in or, upon any article of food-
 - cochineal, carmine, caramel, Carotenes, chlorophyll, curcumin, lactoflavin, annatto, ratanjot, saffron.
- Inorganic colouring matters or pigments shall not be added to any article of food.
- ✓ The use of artificial or synthetic colouring matters in raw foodstuffs which are consumed after cooking in the usual way is prohibited.
- No person shall sell a coal-tar colour or a mixture of coal-tar colors unless the label on the package carries-
 - The common name (s) of the coal-tar colour (s).
 - The lot number of coal-tar colour; and
 - The words "Food Colour".

➤ Negative List

Use of permitted coal-tar dyes in or upon any food other than those shown below is prohibited-

- Ice-cream
- Dairy products except milk, dahi, butter, ghee, chhana, condensed milk, cream, and baby food
- Smoked fish
- Egg preparation
- Sweets including pastry and Other confectionaries
- Fruit Products
- Non-alcoholic beverages except tea, cocoa and coffee
- Custard powder
- Jelly crystals
- Soup powder and
- Luncheon meat
- Processed or preserved vegetables
- Flavoring agents

Preservatives Under Food Rules, 1967

Class I Preservative shall be-

Common salt
Sugar
Dextrose
Glucose
Wood smoke
Spices
Vinegar or acetic acid
Honey
Hops
Commercial salt petre; and
Alcohol or potable spirit, and

Class II preservative shall be –

Benzoic acid including salts thereof,
Sulphurous acid including salts thereof,
Nitrites of sodium or potassium in respect of
food like ham, pickle, meat, and
Sorbic acid including salts thereof.

The use of Class II preservatives is restricted to 26 specified group of foods and proportions in which they can be used has also been specified.

Use of more than one class II in any food is prohibited.

Antioxidants In Food

Antioxidants shall not be added to any food other than :

- **Edible oils and fats from animal, vegetable and fish, vitamin oils or concentrates,**
and
- **Products consisting essentially of fat such as margarine or the like.**

Stabilisers In Food



The use of stabilizers or emulsifying agents, singly or in combination is permitted:

- Agar Agar.
- Carob bean.
- Irish moss or carrageen or chondrus.
- Guar gum.
- Sodium alginate.
- Monoglycerides or diglycerides of fatty acids.
- Brominated vegetable oils.
- Gum Acacia.
- Provided that where a standard for the nature, substance and quality of a----- prescribes a limit, that shall not be exceed by the stabilizer.

Non-Nutritive Constituents



- The following non-nutritive sweeteners or their salts-may be used:

- ❖ Calcium cyclobexyl-sulphate; and
- ❖ Sodium cyclohexyl-sulphate.

Non-nutritive sweeteners and sugar shall not be used in combination in any food.

Negative List For Food Additives



Negative List is Not clearly specified Under Bangladesh Food Laws, 1967. However, products are considered injurious to health if they contain the following metal or metalloids in excess of the tolerance limit showing against each-

Aluminum	Maximum	250	parts	per	million
Antimony	“	2.0	“	“	“
Arsenic Liquid	“	0.1	“	“	“
Arsenic Solid	“	2	“	“	“
Boron	“	80	“	“	“
Cadmium	“	6	“	“	“
Zinc	“	100	“	“	“
Copper	“	10	“	“	“
Tin	“	100	“	“	“
Fluorine	“	1.5	“	“	“
Silver	“	1	“	“	“
Lead Liquid	“	2	“	“	“
Lead Solid	“	20	“	“	“

Labeling Of Food Additives



- Most of the labelling requirements are in conformity to regional requirements and are guided by general principles of Codex Labeling norms. The labels are in Bangla and English dialects with general information on Brand Name, Manufacture details, weight/ volume, price and date of manufacture. Labeling of additives is as per generic guidelines. Currently BSTI is developing the labelling policy.

Labelling Under Bangladesh Pure Food Rules, 1967

Container of food which contains preservative shall not be marked "pure"- the word "Pure" shall not be used on the label of the container of any food which contains preservative.

No preservative shall be sold for use in food unless the label carries-

- The common name.
- The chemical name.
- The net weight.
- Adequate directions for use in accordance with the limits prescribed for such preservatives; and
- The name and address of the manufacturer.

Commodity Standards **Case Studies**

1. Instant Noodles

- Under Bangladesh Pure Food Rules, 1967, NO specific standard for Instant Noodles are prescribed. However, standards for cereal products, local products and vermicelli are provided.

2. Carbonated Soft Drinks

- Under The Bangladesh Pure Food Rules 1967 Standards for Non alcoholic Beverages, which include Aerated water and Soda water, are prescribed. These are mandatory and enforced by government agencies.

3. Prepared Frozen Foods

There are NO standards Under the Bangladesh Pure Food Rules, 1967, for Frozen Foods including fish, meat and poultry products.

4. Cow's Milk

- Under The Bangladesh Pure Food Rules 1967, Milk and Products standardization have been prescribed. These standards include cow's milk along with other local processed milk products manufactured and traded in the country. All these standards are mandatory and enforced by government agencies.

Nepal

Nepal

- The Federal Democratic Republic of Nepal, is located in **South Asia** in the **Himalayas** and bordered to the north by the **People's Republic of China**, and to the south, east, and west by the **Republic of India**.
- Population of approximately 27 million .
- Nepal is the world's 93rd largest country by land mass and the 41st most populous country.
- **Hinduism** is practised by about 81% of Nepalese, **Buddhism** is linked historically with Nepal and is practiced by 9%,
- Official Language: Nepali



Introduction

- In the course of formulating food regulatory framework in Nepal in 1960s, many of the technical aspects were referred from Prevention of Food Adulteration Act of India or PFA. These days, the trend of updating of regulation is mainly guided by the Codex guidelines.

Legislations And Agencies Food Safety

Act/Rules and implementing Departments	Related Ministries
Food Act 1966 DFTQC	Ministry of Agriculture Development
Food Regulation 1970 DFTQC	Ministry of Agriculture Development
Consumer protection Act 1998 DoC	Ministry of Commerce and Supplies
Consumer protection Rules 2000 DoC	Ministry of Commerce and Supplies
Slaughterhouse and Meat Inspection Act 1998 DLS	Ministry of Agriculture Development
Slaughterhouse and Meat Inspection Rules 2000 DLS	Ministry of Agriculture Development
Local self-governance Act 1999 Local Govts	Ministry of Local Development
Local self-government Rules 2000 Local Govts	Ministry of Local Development
Nepal Standards (Certification mark) Act 1980 NBSM	Ministry of Industries
Nepal Standards (Certification mark) Rules 1983 NBSM	Ministry of Industries
Standard weights and Measures Act 1968 NBSM	Ministry of Industries
Standard weights and Measure Rules 1978 NBSM	Ministry of Industries
Animal health and livestock service act 1998 DLS	Ministry of Agriculture Development
Animal health and Livestock service Rules 2000 DLS	Ministry of Agriculture Development
Breast feeding substances (Sales & Distribution control) Act 1992 DH/DFTQC	Ministry of Health & Population. / Ministry of Agriculture Development
Breast feeding substances (Sales & Distribution control) Rules 1994 Department of Health /: Department of Food Technology & Quality Control.	Ministry of Health & Population. /Ministry of Agriculture Development
Iodized Salt (Production Sale and Distribution) Act 1999 Department of Health Department of Food Technology & Quality Control.	Ministry of Health & Population/ /Ministry of Agriculture Development
Feed Act 1976: Department of Food Technology & Quality Control.	Ministry of Agriculture Development
Pesticide Regulation Act 1991 DoA	MoAD

Main Legislation



- **Food Act 2023 (1966) & Food Rules 2027 (1970).**
- **The Administrative Authority for Food Act and Rules is Ministry of Agriculture Development.**
- **Note: 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.**



- **The Food Act provides for definitions of food and food adulteration, administrative infrastructure, offences and penalties and establishment of Department of Food Technology and Quality Control and setting up of Food Standardization Committee.**
- **The Food Rules provide for Food Additives, Contaminants, Inspections, Method of Sampling, Food Labelling, Use of Color and Preservatives etc.**



**Department Food Technology
And Quality Control (DFTQC)**
Website: [Www.Dftqc.Gov.Np/](http://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 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 functions and activities specifically focused to food quality control (implementation of Food Act & Regulation). The activities include:

- Food Inspection.
- Industry Licencing.
- Consumer Awareness.
- Food Standardization And Compliance.

Food Standard Fixation Committee



There is a Food Standardization 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.

Mandatory Food Standards In Nepal

- **Generic Standards**
- **The standards of food commodities either common staple or their products, are included in the generic standards.**
- **Eleven groups of food commodities are included in mandatory standards in Nepal – Table 1.**

Table 1. Mandatory Standards For Food Commodities 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

- 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 concerned 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.

Laws And Regulations Related To Food Additives

- Standard published by Indian PFA (now FSSAI) and CODEX are frequently referred standard for additives in Nepal.

Flavors

- **NO details on qualitative and quantitative terms are given in Nepalese food standard.**
- **Natural and artificial flavors in processed foods are referred in Codex and PFA publication.**

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

- **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.**

Color

- “Color” means any natural or artificial colour to be mixed in a food.
- **Coal Tar Colours (Synthetic Dyes) Are Allowed To Be Used In Food as per food specified in schedule 10 only.**

Table 2. List Of Coal Tar Colours Permitted To Be Used In Food

Type	Colour Index No. 1956	Common name	Other name
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	

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.

Restriction on the Use of Coal Tar Colours: The Coal Tar Colours can 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.

Prohibition of the use of Coal Tar Colours: Even the specified Coal Tar Colours are not allowed to be used in any food to be eaten after cooking.

Natural Colours Allowed To Be Used In Food

Type	Colour Index	Common Name
Yellow	75.120	Annato
-do-	75.130	Carotene or β -carotene
-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

There are restriction on use of Inorganic Colors and Pigments

No inorganic colors or pigments are permitted to be used in food preparations.

Use Of Preservative In Food

First Class Preservatives

- **Common salt.**
- **Sugar/sugar candy.**
- **Dextrose.**
- **Glucose.**
- **Wood smoke.**
- **Spices.**
- **Vinegar or acetic acid.**
- **Honey.**
- **Hops, and**
- **Alcohol.**

Second Class Preservatives

- **Sodium or potassium nitrites.**
- **Benzoic acid and salts thereof.**
- **Sulphurous acid and sulphur dioxide.**

The quantities of preservatives and the food in which they can be used have been mentioned in the Rules.

The use of more than one Second Class Preservative in any food is prohibited.

Vitamins And Minerals

- **Vitamins and Minerals are allowed to be added in foods and the limits have been prescribed.**

Labelling Requirements

- Where a color or a preservative is added to a food, any statement or any kind of symbol or sign indicating such addition has be mentioned on the label.
- The label of a food claimed to contain vitamins, minerals or other nutritional substances have to specify it on the label.

There are following provisions:

- (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.

Revision

- The original Food Act does not cover the mandatory requirements and regulation mechanisms for functional foods, nutraceuticals, 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.

Nepal Bureau Of Standards And Metrology (NBSM)
Under Ministry of Industry

- **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 mark called NS.**
- **There are 106 standards for food products and 13 for food packaging Materials.**

Case Studies

1. Instant Noodles

- **There are standards for Instant noodle .**
- **It 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 flavor. The product shall not contain any mold and insect infestations, parts or whole, and shall meet the specified requirements:-**

2. Processed Milk

- **There are standards for 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".**

3. Carbonated Water

- **There are standards for Carbonated Water (nonalcoholic beverage).**

- **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.**

4. Frozen Foods

- **There are no provisions for Frozen Foods.**

- **ACKNOWLEDGEMENT & THANKS**

I would like to thank the following EXPERTS for their contribution in preparing Country Reports of Sri Lanka, Bangladesh and Nepal:

- **Sri Lanka: Dr. S. Nagaiah, Consultant / Food Control Administration Unit, Ministry Of Health**
- **Bangladesh: Dr. G.M. Tewari, Consultant**
- **Nepal: Dr. Ganesh Dawadi, Deputy Director General, Dept. of Food Technology & Quality Control**

THANK YOU



Towards Harmonization of Food and Food Additive Standards in ASEAN



Towards Harmonization of Food and Food Additive Standards in ASEAN

Teoh Keng Ngee
Manager, Scientific
Programs



ILSI
Southeast
Asia Region

ASEAN

(Association of South East Asian Nations)



- Formed on August 8, 1967 by 5 Founding Members (*Indonesia, Malaysia, Philippines, Singapore, Thailand*) through ASEAN Declaration (Bangkok)
- Original purpose: maintain regional security & stability (*newly independent nations, threat of regional tension & disputes, wider threat of communism*)



ILSI
Southeast
Asia Region

ASEAN Development

- Expansion of membership: Brunei (1984), Vietnam (1995), Lao PDR & Myanmar (1997), Cambodia (1999)
- As ASEAN 'matures', shift from **security** towards **economic** focus
- Move from regional **cooperation** towards regional **integration** objective
- ASEAN Free Trade Area (AFTA) (1992), realized in 2010 for ASEAN -6
- Formalization of ASEAN through **ASEAN Charter** in 2008
- Towards **ASEAN Community** 2015 -> comprising 1) **ASEAN Security Community**
2) **ASEAN Socio-Cultural Community** & 3) **ASEAN Economic Community**



ASEAN Today

- 10 Member States with a combined total population of 600 million
- Rapidly growing economic region:

Country	2012 Real GDP Growth Rate (%)
Brunei Darussalam	2.7
Cambodia	6.5
Indonesia	6.0
Lao PDR	8.3
Malaysia	4.4
Myanmar	6.2
Philippines	4.8
Singapore	2.1
Thailand	5.6
Vietnam	5.1



(Source: CIA World Fact Book)

ASEAN Economic Community (AEC)

- One of the pillars of the ASEAN Community to be established by 2015

- Objectives of the AEC, to be:

- 1) A single market and production base;
- 2) A highly competitive economic region;
- 3) A region of equitable economic development; and
- 4) A region fully integrated into the global economy

- Aim to make AEC a region with **free movement of goods**, services, investment, skilled labour and freer flow of capital, through cooperation on human resource development, enhancing infrastructure and communications connectivity, **integrating industries across the region** & **enhancing private sector involvement**, etc.



ASEAN Guiding Principles

- Guiding principles of ASEAN since its foundation:

- 1) respect for independence, sovereignty & equality
- 2) non-aggression & peaceful settlement of disputes
- 3) non-interference in internal affairs
- 4) consultation & consensus

- Collectively known as “The ASEAN Way”

- These principles are enshrined in the ASEAN Charter
(therefore they are not likely to change in the foreseeable future)



Differences between ASEAN & EU economic integration

ASEAN	EU
Established post-WW II & de-colonization period with focus on security cooperation at the beginning and only later on economic integration	Established post-WW II with economic integration agenda from the beginning
Relations-based decision making through informal discussions between leaders	Rules-based decision making through formal negotiations between leaders
ASEC is purely an administrative institution	EC has mandate to initiate EU legislation
Voluntary adoption of rules based on national processes	Mandatory adoption of EU legislation once issued
No cases brought up for dispute settlement	Dispute settlements have helped spur harmonization



Harmonization of Food Standards in ASEAN

- Harmonization of ASEAN food standards led by the [ASEAN Consultative Committee on Standards and Quality \(ACCSQ\) Prepared Foodstuff Product Working Group \(PFPWG\)](#) through:
 - a) Mutual Recognition Arrangements for inspection & certification procedures (based on Codex Alimentarius guidelines)
 - b) Adoption of ASEAN harmonized technical standards or Codex standards (e.g. labeling, food additives, contaminants, contact materials, etc.)

- Capacity building efforts to strengthen ASEAN food control systems & infrastructures led by the [ASEAN Expert Group on Food Safety \(AEGFS\)](#), through [ASEAN Food Safety Improvement Plan \(AFSIP\)](#) on areas including:
 - a) Risk assessment
 - b) Laboratory capacity
 - c) Risk communication
 - d) Consumer education
 - e) Food safety legislation
 - f) Inspection & certification

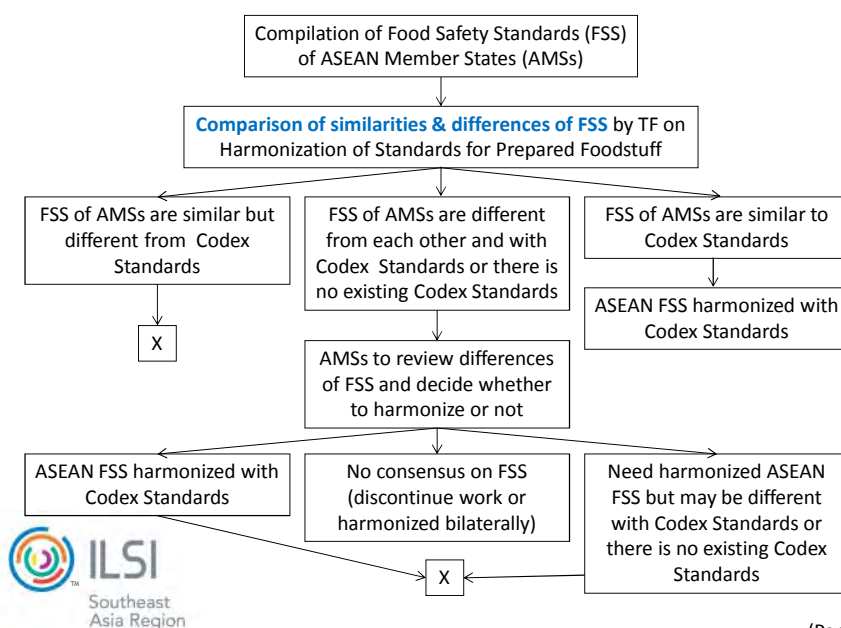


Science as a Basis for Harmonization of ASEAN Food Standards and Controls

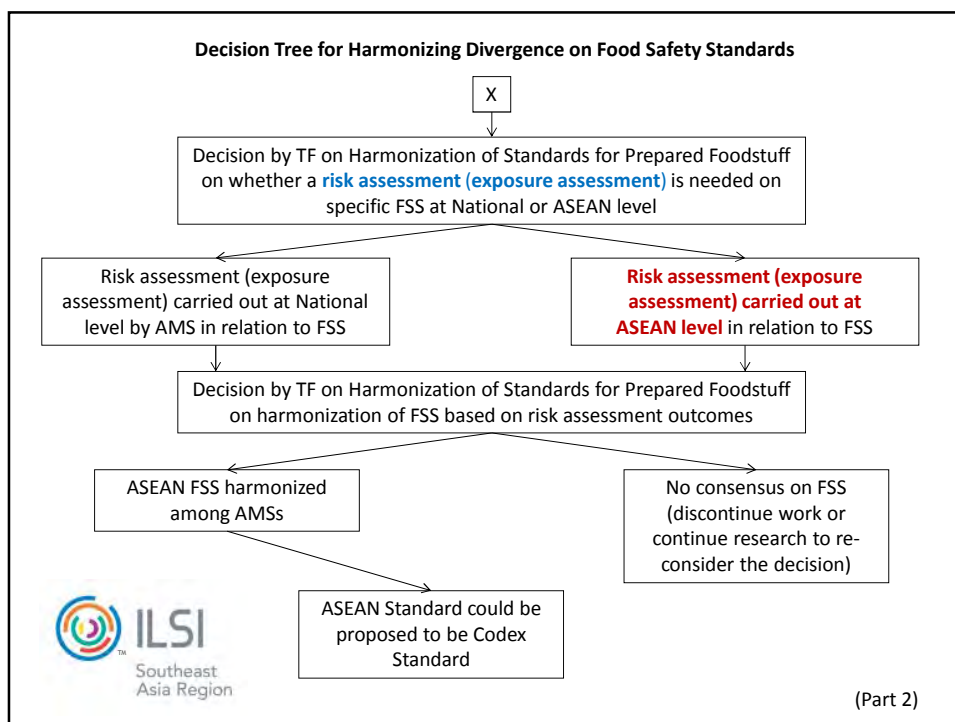
- There is general agreement among ASEAN food safety authorities to use risk assessment as a basis for food safety standards harmonization when clear agreement is not possible (ref: PFPWG Decision Tree)
- However, lack of scientific capacity, data & infrastructure in the region leave gaps to be filled and acts as barrier in applying science-based decision making



Decision Tree for Harmonizing Divergence on Food Safety Standards



(Part 1)



Food Additive Standards in ASEAN

- Each ASEAN country has specific regulatory bodies responsible for control of use of food additives:

Country	Regulatory Body
Brunei Darussalam	Food Safety & Quality Control Division, Ministry of Health
Cambodia	Department of Drug and Food, Ministry of Health; CAMCONTROL
Indonesia	Ministry of Health; National Agency for Drug and Food Control
Lao PDR	Food and Drug Department, Ministry of Health
Malaysia	Food Safety & Quality Division, Ministry of Health
Myanmar	Food and Drug Administration
Philippines	Food and Drug Administration
Singapore	Agri-Food & Veterinary Authority
Thailand	Food and Drug Administration
Vietnam	Vietnam Food Administration

Food Additive Standards in ASEAN

- Most ASEAN countries have regulations that control use of food additives:

Country	Regulatory Body
Brunei Darussalam	Public Health (Food) Regulations
Cambodia	NA
Indonesia	Minister of Health Regulation No. 33 of 2012 on Food Additives
Lao PDR	Decision on the Control on Production, Exportation-Importation of Food No. 856/MoH
Malaysia	Food Regulations 1985
Myanmar	NA
Philippines	AO No. 88As. 1984 on Regulatory Guidelines Concerning Food Additives; FDA Circular No. 2006-016 on Updated List of Food Additives
Singapore	Food Regulations
Thailand	Notification of the Minister of Public Health No. 281 B.E. 2547 (2004) on Food Additives
Vietnam	Minister of Health Decision No. 3742/2001/QĐ-BYT on List of Additives Permitted for Use in Food



Harmonization of Food Additive Standards in ASEAN

- Current harmonization of food standards, including for food additives, at ASEAN-level is based on 'vertical' approach (by commodity) rather than 'horizontal' approach, for e.g.

Step 1: selection of food category to be harmonized for food additives & contaminants (e.g. confectionary)

Step 2: identification of differences in food additive & contaminant standards for the food category

Step 3: agreement among TF on Harmonization of Standards for Prepared Foodstuff which food additives and/or contaminants to be harmonized according to PFPWG Decision Tree



ILSI SEAR'S Role & Activities in Supporting Food Safety Standards Harmonization in ASEAN

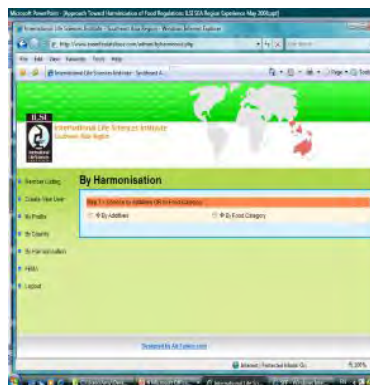
1) ASEAN Food Safety Standards Harmonization Workshop Series

- Organized workshop series with food safety authorities from AMSs since 2001:
 - initially started with FAO & WHO to determine whether possible for AMSs to harmonize food safety standards with Codex Standards, focusing on food additives
 - serves as a platform for different stakeholders (government, academia & industry) to discuss and share scientific issues and identify capacity gaps that are relevant to food safety standards harmonization
- Main recommendations/outcomes/outputs in 2012:
 - **ASEAN Food Safety Standards Database**
 - ASEAN Risk Profiles for Contaminants (*in progress*)
 - Case Studies on Food Descriptions Used in Contaminant Standards of AMSs (*in progress*)



ASEAN Food Safety Standards Database

- In 2003, ILSI Southeast Asia Region developed a pilot database to support work on harmonization of food additive standards by ASEAN countries
- Includes information on food additive standards:
 - 45 selected additives (preservatives, sweeteners & colours)
 - includes data from 10 ASEAN countries
 - food categorization based on Codex General Standard for Food Additives



ASEAN Food Safety Standards Database

Timeline	Activity
Jan 2011	Decision to hand over AFSSD to ACCSQ PFPWG at 9 th ASEAN Food Safety Standards Harmonization Workshop
Feb 2011 - Dec 2011	Revamping and upgrading of AFSSD to meet current technical needs for food safety standards harmonization
Feb 2012	Shared at 10 th ASEAN Food Safety Standards Harmonization Workshop
June 2012	Shared at 15 th ACCSQ PFPWG and adopted by ACCSQ PFPWG for their use in the work on food safety standards harmonization



Website: www.aseanfssdatabase.com

Members
Database Search
Profiles

Administrators
GSFA Codex *
GSFA Categories *
Additives Manager *

Members Login
Hi Super User,
[Log out](#)

About the ASEAN Food Safety Standards Database

ILSI
Southeast Asia Region

The ASEAN Food Safety Standards Database is an initiative of the Working Group on ASEAN Food Safety Standards Harmonization.

The Working Group on ASEAN Food Safety Standards Harmonization consists of government authorities from Southeast Asian countries that make up the Association of Southeast Asian Nations (ASEAN), as well as regional and academic stakeholders. The main objective of the Working Group is to identify ways to harmonize food safety standards among ASEAN countries so that they are aligned with international standards whenever possible, such as Codex Alimentarius. Members of the Working Group meet annually to discuss harmonization efforts at the ASEAN Food Safety Standards Harmonization Workshop, which is facilitated by the International Life Sciences Institute (ILSI) Southeast Asia Region.

Currently, the ASEAN Food Safety Standards Database contains information on food additive standards in the ten ASEAN countries.

Participating Countries

- Brunei Darussalam
- Indonesia
- Malaysia
- Philippines
- Thailand
- Cambodia
- Laos
- Myanmar
- Singapore
- Vietnam

Disclaimer

(C) 2012 International Life Sciences Institute - ASEAN Food Safety Standards Database
Disclaimer: This database is made available solely for the purpose of information. It has no legal value. Users are

Home About ILSI Contact Us

ILSI ASEAN Food Safety Standards Database
International Life Sciences Institute
Southeast Asia Region

Members
Database Search
Profiles
Members Login
Hi demo, Logout

Search
[PLACEHOLDER TEXT]: Describe the search function here

Additives
ACIDITY REGULATOR (-)
Acetic acid, glacial
Ammonium acetate
Ammonium carbonate
Ammonium dihydrogen phosphate
Ammonium hydrogen carbonate
Ammonium hydroxide
Ammonium lactate
Ascorbic acid, L-
Calcium acetate
Calcium carbonate
Calcium dihydrogen diphosphate
Calcium gluconate
Calcium hydrogen phosphate
Calcium hydroxide
Calcium lactate
Calcium malate, DL-
Calcium oxide
Calcium polyphosphate
Carrauba wax
Citric acid
Diammonium hydrogen phosphate
Dicalcium diphosphate
Dipotassium dihydrogen phosphate
Dipotassium tartrate
Disodium dihydrogen phosphate
Disodium diphosphate
Fumaric acid
Glucose delta-lactone
Hydrochloric acid
L(+)-Tartaric acid
Lactic acid, L-, D-, DL-

Food Categories
01.0.0.0 - DAIRY PRODUCTS AND ANALOGUES, EXCLUDING
01.1.0.0 - MILK and dairy-based drinks
01.1.1.0 - MILK AND BUTTERMILK (PLAIN)
01.1.1.1 - Milk (plain)
01.1.1.2 - Buttermilk (plain)
01.1.2.0 - DAIRY-BASED DRINKS, FLAVOURED AND/OR FERMENTED
01.2.0.0 - Fermented and renneted milk products (plain), excluding
01.2.1.0 - FERMENTED MILKS (PLAIN)
01.2.1.1 - Fermented milks (plain), not heat-treated after fermentation
01.2.1.2 - Fermented milks (plain), heat-treated after fermentation
01.2.2.0 - RENNETED MILK (PLAIN)
01.3.0.0 - Condensed milk and analogues (plain)
01.3.1.0 - CONDENSED MILK (PLAIN)
01.3.2.0 - BEVERAGE WHITENERS
01.4.0.0 - Cream (plain) and the like
01.4.1.0 - PASTEURIZED CREAM (PLAIN)
01.4.2.0 - STERILIZED AND LIGHT CREAMS, WHIPPING CREAM

Countries
Brunei
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Thailand
Vietnam
Select All | Unselect All

Select food additive
Organized according to functional classes
Select food category
Select country

Search

Home About ILSI Contact Us

ILSI ASEAN Food Safety Standards Database
International Life Sciences Institute
Southeast Asia Region

Members
Database Search
Profiles
Members Login
Hi demo, Logout

Search
Search Criteria
Food Categories: ALL
Additive/Substance: Preservative/Benzoates
Countries: ALL

Legend
GCSFA Value
Green: All GCSFA
Red: Not GCSFA
Green: Not GCSFA
Green: Not GCSFA
Orange: Harmonized with GCSFA
White: Harmonized with GCSFA (partial countries)

Results

Food No./Description	GCSFA (Code) (100-199)	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand
01.0.0.0 DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0	100 ppm	200 ppm (+10ppm)	60 ppm (-40ppm)	90 ppm (-10ppm)	200 ppm (+10ppm)	60 ppm (-40ppm)	NP	NP	NP	NP
01.1.0.0 Milk and dairy-based drinks	50 ppm	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	NP	60 ppm (+10ppm)
01.1.1.0 MILK AND BUTTERMILK (PLAIN)	NP	80 ppm	80 ppm	80 ppm	80 ppm	80 ppm	80 ppm	80 ppm	NP	80 ppm
01.1.1.1 Milk (plain)	NP	NP	NP	NP	NP	80 ppm	NP	NP	NP	NP
01.1.1.2 Buttermilk (plain)	NP	NP	NP	NP	NP	80 ppm	NP	NP	NP	NP
01.1.2.0 DAIRY-BASED DRINKS, FLAVOURED AND/OR FERMENTED (e.g., yogurt)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP

Indicates specific notes/conditions of use (roll over to reveal)

Red indicates all countries not harmonized with GCSFA
Blue indicates some (not all) countries harmonized with GCSFA
Green indicates all countries harmonized with GCSFA

Arrows to indicate whether lower or higher than GCSFA value

Management of the Database

- **Administrator (ILSI Southeast Asia Region):**
 - Update values for GSFA additives when changes occur at CCFA
 - Update GSFA food categories when changes occur at CCFA
 - Update database to include new food additives (if any)
 - Maintenance and further upgrading of the database software
 - Pay for the web hosting of the database
 - Administer user access to the database (report to ACCSQ PFPWG on list of users, see who has accessed it and from where)
- **Moderators (ASEAN Focal Points):**
 - Modify national data for own country
 - Able to add country-specific custom categories
 - Not able to modify another country's data



Current Status of the Database

- Population of data for Codex GSFA has been completed
- Collection of data on national food additive standards via identified National Focal Points, starting with 'priority' food additives (e.g. **colours**, **preservatives**, **sweeteners**)
- Data collected from AMSs on **colours** as of Dec 2012
- Second template on **preservatives** sent out via ASEC to AMSs in Jan 2013
- Decision regarding opening of database to wider audience to be decided by ACCSQ PFPWG (AMSs are generally supportive when the timing is appropriate)



ILSI SEAR'S Role & Activities in Supporting Food Safety Standards Harmonization in ASEAN

2) Training Workshops on Risk Assessment of Food Additives

- Organized in Philippines (February 24, 2012) and Thailand (February 27, 2012) for national food safety authorities and risk assessors
- Discussed topics including general principles for risk assessment of food additives, exposure assessment and provided specific case studies on steviol glycosides, etc.

2) ASEAN Food Consumption Data and Exposure Assessment Workshop

- Organized in Malaysia (October 10-13, 24, 2012) inviting food consumption data experts and risk assessors from all ASEAN countries
- Discussed development of harmonized food consumption data among ASEAN countries for use in exposure assessment, including for during approval of food additives



ILSI SEAR'S Role & Activities in Supporting Food Safety Standards Harmonization in ASEAN

- ILSI SEAR seeks to continue playing a role in supporting ASEAN efforts in harmonization of food safety based on scientific principles and evidence
- This may be achieved through:
 - sharing of latest scientific information and technical knowledge on identified and emerging food safety concerns
 - helping to develop and build capacity in relation to food safety and risk assessment infrastructures within ASEAN (e.g. ASEAN Food Safety Standards Database, ASEAN Risk Profiles, ASEAN Food Consumption Data, etc.)
- Nevertheless, harmonization of food safety standards in ASEAN will be a long and challenging process

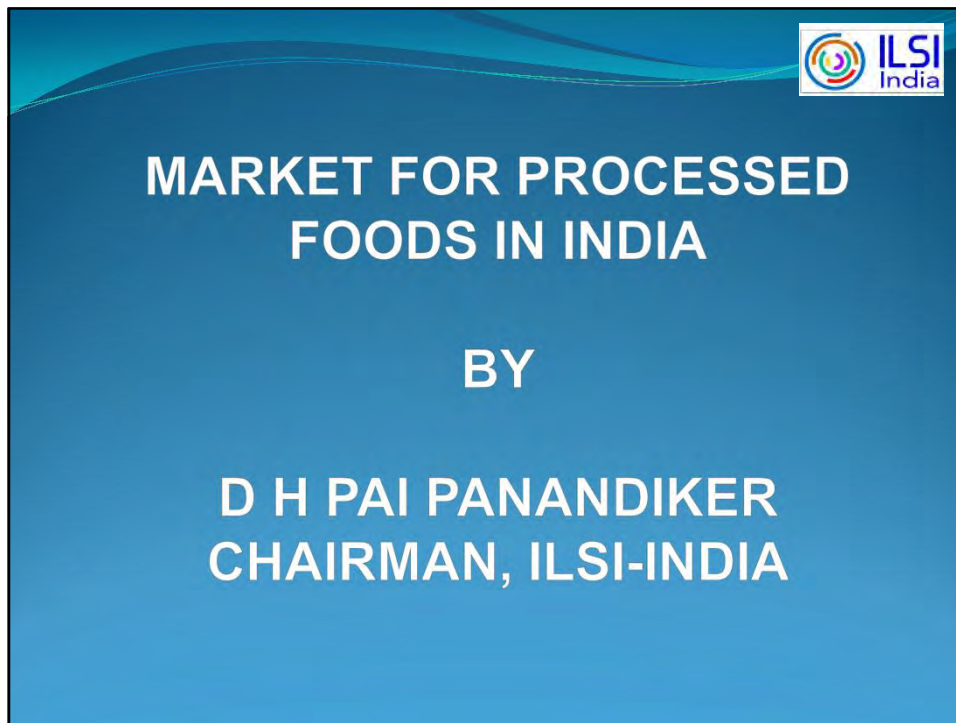




Thank you

Website: www.ilsis.org/SEA_Region

Mr. Keng Ngee Teoh
Scientific Program Manager
ILSI Southeast Asia Region
E-mail: kengngtee@ilsisea.org.sg



<u>MARKET FOR PROCESSED FOODS</u>	
GLOBAL MARKET	¥ 400 trillion
GLOBAL EXPORTS	¥ 24 trillion
INDIAN MARKET	¥ 7.7 trillion
INDIA'S EXPORTS	¥ 600 billion

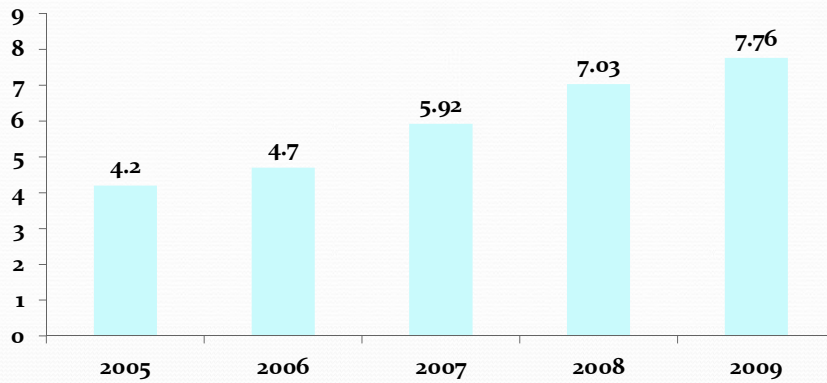
PROCESSING OF AGRICULTURAL PRODUCTION

Malaysia	80
Philippines	78
Brazil	70
China	40
Thailand	30
India	20

PRODUCTION OF SELECT AGRICULTURAL COMMODITIES

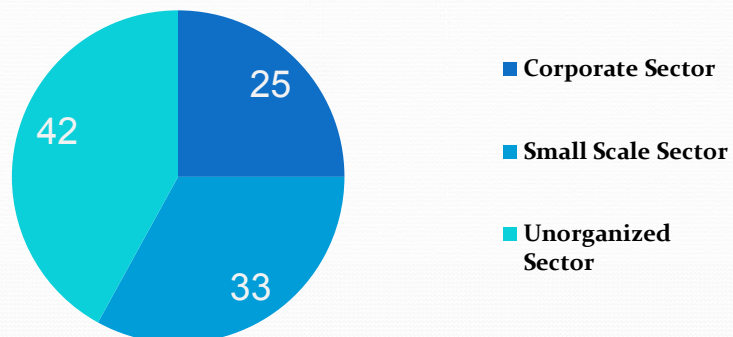
Fruits	80 mil tons
Vegetables	140 mil tons
Milk	115 mil tons
Fish	8 mil tons
Poultry	0.8 mil tons
Eggs	60 billion
Food grains	250 mil tonnes

GROWTH OF FOOD PROCESSING INDUSTRY (In Trillion Yen)

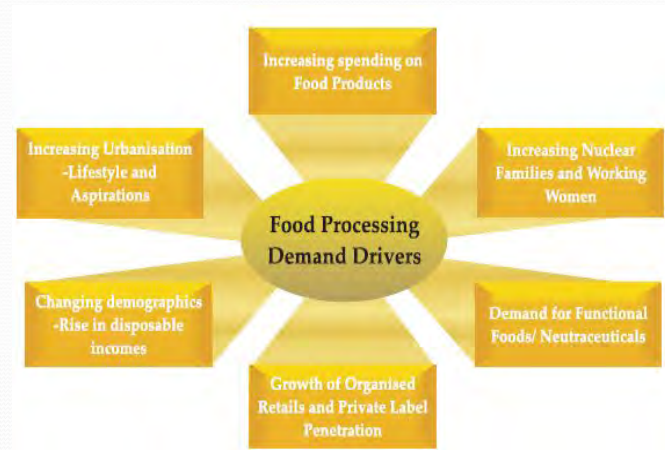


SECTORWISE SHARE IN FOOD INDUSTRY

Share (%)



DRIVERS OF DEMAND FOR PROCESSED FOODS



MARKET SIZE OF CORPORATE SECTOR IN PROCESSED FOODS 2010-11

Food	Japanese Yen
Milk Powder and Condensed Milk	58.5 billion
Infant Milk Products	59 billion
Malted Milk Foods	62.8 billion
Ice-cream	21 billion
Flour Milling	215.6 billion
Biscuits	217 billion
Bread	13.3 billion
Breakfast Cereals	1.6 billion

Food	Japanese Yen
Wafer and Potato Chips	29 billion
Fruits Juices	36.1billion
Sauces/Ketchups/jams	17.4 billion
Sugar	1.03 trillion
Confectionery	134 billion
Vegetable Oil	1.8 trillion
Soya Products	339.5 billion
Poultry Products	116.9 billion
Marine Products	1.56 trillion
Soft Drinks	227 billion

味の素(株)のインドにおける事業展開
Business Expansion of Ajinomoto
Co., Inc. in India

2013年2月22日
February 22, 2013

味の素(株) 濱野勝男
Ajinomoto Co. Inc., Katsuo Hamano

1

サブタイトル
Sub title

- うまみ調味料「味の素」の普及と
インドビジネスの可能性
Activities to promote Umami
seasoning “AJI-NO-MOTO” and
Business potentiality in India

2

目次

Contents

1. うまみ調味料「味の素」の普及

Promoting Umami seasoning “AJI-NO-MOTO”

- インド味の素社の成り立ちと立ち上げ期
Business history of Ajinomoto India Pvt. Ltd.
- リテイル営業の開始
Starting sales activity for retail market
- リテイル営業の進化
Developing sales activity for retail market

3

2. 今後のインドビジネスの可能性

Business potentiality in India

- 魅力あるインド市場、人材
Promising market and manpower
- 日本人の人材に求められること
Necessities for human resource from
Japanese business person

4

1. うまみ調味料「味の素」の普及

Promoting Umami seasoning “AJI-NO-MOTO”



5

インド味の素社の成り立ちと立ち上げ期

Business history of Ajinomoto India Pvt. Ltd.

- 2003年タミルナドゥ州チェンナイ市内に設立
AIPL was established in Chennai city of Tamil Nadu in Y2003
- 味の素(株)とタイ味の素(株)が出資
Investor: Ajinomoto (Tokyo and Thailand)
- MSGを輸入し、リパック工場にて製造、販売
AIPL imports MSG, repacks it as small size and sells in all over India

6

- 社長はインド人、取締役は日本人
Managing director is Indian, director is Japanese
- 従業員は約300名(含む契約社員)
The number of employee is around 300 including ISR, factory worker
- 2005年の洪水で事務所移転、2011年の事務所内床の沈下により再度移転(2度の被害に遭う)
AIPL transferred office and factory at 2 times by calamity such as flood in Y2005 and subsidence of office floor in Y2011



7

リテール営業の開始 Starting sales activity for retail market

- 創立以来外食用品種を発売。2005年よりリテール品種(小袋サイズ)の「味の素」の販売を開始し、2007年より本格的にエリアを拡大。

AIPL launched “AJI-NO-MOTO” 500g for food service since 2003, and started sales of small size of “AJI-NO-MOTO” in Y2005, and then accelerated area expansion in Y2007



8

- 味の素リテイルウェイの浸透のため、営業同行、営業研修とOJTを強化

In order to make sales person understand “Ajinomoto Retail Way”, I focused on OJT (On the Job Training) by going retail market together and doing sales seminar



Going together



Attaching sticker



Sales seminar

9

- PUSH型からPULL型営業へ変更

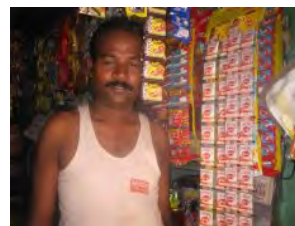
Changed sales stile from “PUSH-selling” to “PULL selling”

cf. 理由

- ・返品防止
- ・売掛金の防止
- ・店頭での新鮮な商品

Reason:

- Avoid return goods
- Avoid Account Receivables
- Maintain fresh product at retailer



10

- 店頭での在庫消化のため、営業活動の中に販促/普及活動を組み込む

In order to improve off-take at retail counter, we emphasized sales promotion activity in sales person mind



Caravan activity

In-shop activity

Sampling

11

- キーメニューを“ラッサム”に特化し、消費者への普及を図る

We focused on “Rasam” soup as a key menu and tried its penetration to consumer



Veg-Meals in South India



Rasam soup

12

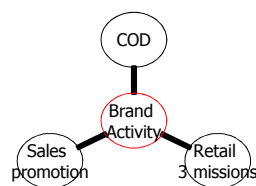
リテイル営業の進化

Developing sales activity for retail market

- "ブランド活動" を中核とした営業活動への変更
We changed from sales activity into "Brand Activity" as a core activity

例) 評価項目・販促活動を変更

Ex. Changed evaluation point and sales promotion activity



Manner	Discipline	Principle	Evaluation by customer	Sales Control
Brand Activity				

13

- 売掛金の大幅(70%)削減とフォーム(州税)の回収
Reduced 70% of Account Receivables and trying to collect forms (f-form, c-form)
- 卸店経由の販売から自社デポ直販方式へ変更中
Changing sales system from distributor to own depot by direct sales

14

- 新商品「Hapima」(スパイスミックス)を発売し、南インドを中心に販売中

We launched “Hapima” masala and are selling in south India



15

2. 今後のインドビジネスの可能性 Business potentiality in India



16

魅力あるインド市場、人材 Promising market and manpower

- 11億人の巨大な人口(胃袋)
A large number (1.1 billion) of population (stomach)
- 家計所得増/簡便化/品質志向によるFMCGへ購買が増加
Increasing purchase of FMCG (Fast Moving Consumer Goods) by income increase, simplification and quality-oriented

17

- 教育水準の向上による優秀な人材の増加
Increasing the number of talented people by upgrading the standard level of education
- 一方で、就業経験のある人材の離職率が増加
On the other hand, it is increasing a job separation rate of manpower who have an experience of working in other company

18

日本人の人材に求められること Necessities for human resource from Japanese business person

- 新興国で何をすべきか
What do we have to do in an newly emerging countries?
- 現地の消費者の幸福に貢献する新たな価値の提供
Producing a new value which will contribute to happy life
of consumer in each countries
- ブランドを育てる(ファンを増やす)
Creating and raising brand (increasing fans)
- 人を育てる(自分の分身を作る)
Training human resource (as the other self)
- 元気な会社にする
Making our company be active

19

これによって、
By these necessities,

- 売上と利益をあげる
We will increase net sales and profit
- 社会に貢献する(納税、雇用)
We will contribute to society in those countries
(tax payment and employment)

20

- 求められる人材像

Required person

- サバイバルができる人
Survive in the tough situation
- 人が好きでコミュニケーションできる人
Like people and good communication
- 胃袋が強い人
Strong stomach
- 熱く語れる人(信念、ビジョン)
Talk about faith and vision earnestly
- 即断即決即実践、率先垂範できる人
Decide promptly, take the initiative and set a good example for others
- 現場によく足を運び現場発想ができる人
Go to field market frequently and think by field-oriented
- 経験・勘・度胸のある人
Well-experienced, Intuition and Boldness
- 人と金をマネジメントできる人
Manage people and money

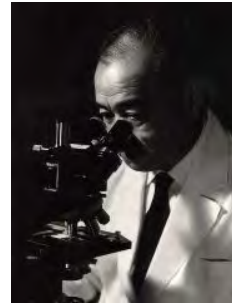
21

ご清聴ありがとうございました
Thank you very much!



22

ヤクルトの国際事業



2013年2月22日
(株)ヤクルト本社国際事業本部
理事 赤星 良一

Yakult

Yakult

- ヤクルト菌の誕生
- 代田稔博士の願い
- 国際事業への進出と展開
- インドコルカタ大規模臨床試験
- マイクロビオタ・プロバイオティクス科学財団設立
- ヤクルト菌の普及と健康の輪
- YL組織の構築と女性労働市場の創出

ヤクルトの生い立ち

- ・ 1899年 代田稔 長野県上田市に生まれる
- ・ 栄養失調と感染症によって多くの友人が亡くなっていく
- ・ 三高から京都帝大医学部に進学
- ・ 研究目標を赤痢やコレラ等の感染症の菌を殺すから感染しにくい体にするに変更
- ・ 治療医学から予防医学に
- ・ コレクションの中から、乳酸菌に効果があることを発見
- ・ 1930年 乳酸菌の強化培養(胃液、胆汁液)に成功



[F:¥DrShirotaShort2.mpg](#)

ヤクルト誕生

- ・ 1935年 シロタ株をヤクルトの商標で発売
- ・ 代田保護菌普及会の使命は「**世界の人々の健康を守る**」



- ・ 代田稔博士の哲学
「予防医学」
「健腸長寿」
「誰もが手に入れられる価格で」

国際事業の変遷

第1段階 求められて

- 1964年 台湾
- 1968年 ブラジル
- 1969年 香港
- 1971年 タイ
- 1971年 韓国
- 1978年 フィリピン
- 1979年 シンガポール
- 1981年 メキシコ



第2段階 積極的な戦略を持って

- 1991年 インドネシア
- 1994年 オーストラリア
- 1994年 オランダ
- 1995年 ベルギー
- 1996年 イギリス
- 1996年 ドイツ
- 1997年 アルゼンチン



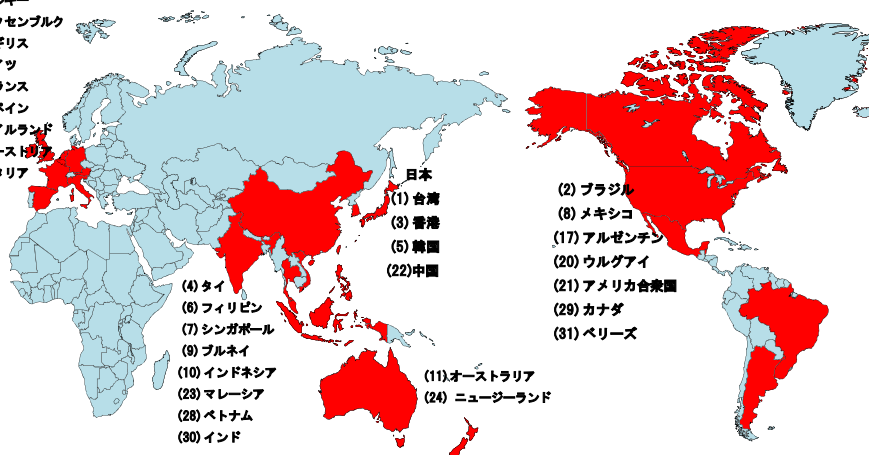
第3段階 人口大国での基盤作りとビジネスモデルの拡大

- 2002年 中国
- 2004年 マレーシア
- 2005年 オーストリア
- 2005年 イタリア
- 2007年 アメリカ
- 2007年 ベトナム
- 2008年 インド



- (12) オランダ
- (13) ベルギー
- (14) ルクセンブルク
- (15) イギリス
- (16) ドイツ
- (18) フランス
- (19) スペイン
- (25) アイルランド
- (26) オーストリア
- (27) イタリア

2300万本/日



《2013年2月現在》
28事業所・1研究所・23工場(15ヶ国)

岡山大学インド感染症共同研究センター



平成17~18年度に日本政府が建設したNICEDの研究棟

岡山大学インド感染症共同研究センター



竹田美文



G. B. Nair

プロバイオティクスは腸管感染症を 予防することができるか

大規模無作為二重盲検試験

- ・調査地域: **コルカタ市**
- ・調査対象: **1～5歳の乳幼児 約4,000人**
- ・試験品: **乳酸菌シロタ株飲料**



飲用サンプルの冷蔵輸送(ヨーロッパヤクルト ⇒ Niced)

Yakult

(製造後1 ~ 3)

ヨーロッパ工場 (オランダ) ⇒ 出荷

[E:インド試験.mpg](#)



アムステルダム空港 ⇒ 保冷コンテナに積替え・輸出通関



(製造後 4)

フランクフルト空港 ⇒ ルフトハンザ航空にてコルカタへ



(製造後 5)

インド・コルカタ空港 ⇒ コルカタ空港着

⇒ 輸入通関後、冷蔵トラックへ積込・配送



(製造後 6)

Niced ⇒ 引渡 (土曜日AM6:00)

Yakult

2つの経営方針

• 農耕型経営

「畑を耕し、種を蒔き、辛抱強く水を遣り、品種改良を続け、長い期間を経た末に漸く収穫期を迎える」「この収穫で新たな畑を耕す」

• 使命型経営

「代田保護菌普及会」が「世界の人々の健康を守る」という代田博士と同じ使命感を持ってヤクルトの普及に努める

2008年 インド工場竣工



マイクロビオタ・
プロバイオティック科学財団

Yakult



Yakult

ヤクルトレディの育成



Yakult

キラナショップ



宅配



スーパーマーケット



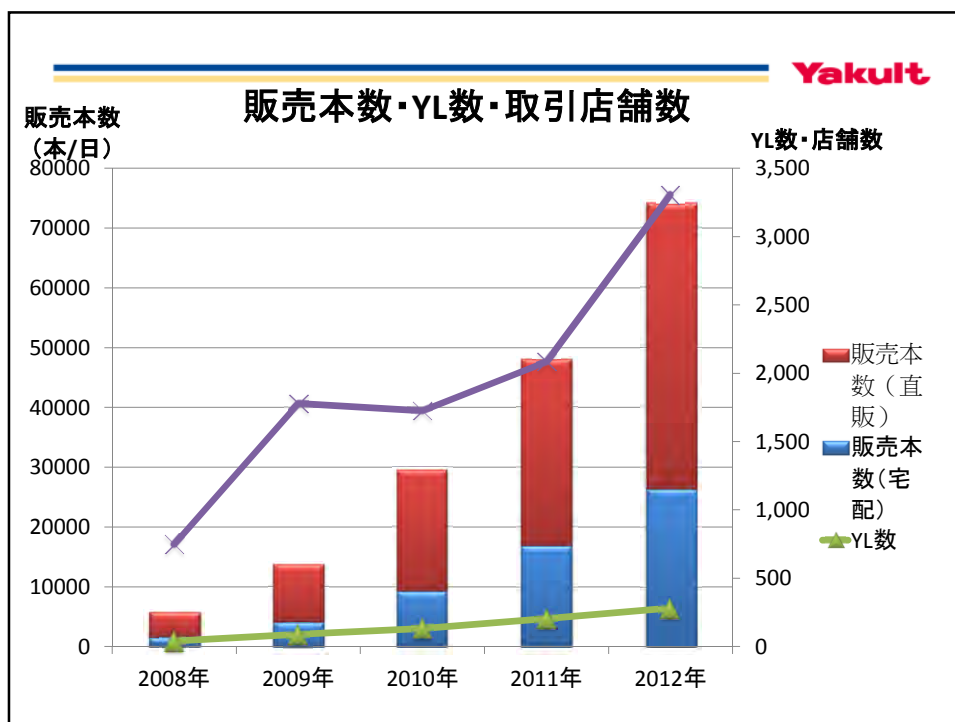
ホテル



- 05年 現地法人設立
- 06年 工場着工
(デリー郊外のライ)
- 08年 工場稼働、生産開始
デリーにて販売開始
- 09年 ムンバイにて販売開始
- 10年 バンガロールにて販売開始
- 12年 ハイデラバードにて販売開始
- 12年 チェンナイにて販売開始
- 13年 コルカタ等へ市場拡大を検討

進出都市 ⇒ ○

進出予定都市 ⇒ ○



Yakult

インドにおける社員数推移

(単位: 人)

部門	2008年	2009年	2010年	2011年	2012年	
人事・総務・ 経理・購買	8	11	11	11	17	
営業	宅配部門	26	32	36	56	69
	直販部門	14	25	28	22	29
	その他	1	2	0	0	0
	小計	41	59	64	78	98
学術広報	3	4	3	3	4	
工場	39	27	27	27	31	
合計	91	101	105	119	150	

※12月末時点の数値。

