

March 4-5, 2014 | Sedona Hotel, Yangon, Myanmar

**Organizers** 





Co-organizer



Supported by

Ministry of Agriculture, Forestry and Fisheries, Japan

# Workshop on Food Safety and Standards

#### **PROGRAM**

March 4, 2014

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	8:00 - 9:00am	Registration
	Opening Session	
	9:00 - 9:30am	Introduction & Opening Session
		Opening Remarks Mr. Hiroshi Kono, Export Promotion Division, Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries, Japan Welcoming Speech Dr. Zaw Win, Food and Drug Administration, Ministry of Health, Myanmar Introduction and Background Mr. Hiroaki Hamano, International Life Sciences Institute (ILSI) Japan, Japan
	Session 1	International and Regional Food Safety Framework and Standards
	9:30 - 10:00am	International Food Standards: Codex Alimentarius and Thailand's Experience Dr. Namaporn Attaviroj, National Bureau of Agricultural Commodity and Food Standards (ACFS), Thailand
1	10:00 - 10:30am	Regulatory Frameworks and Key Challenges of Food Safety in ASEAN Countries Prof. Dedi Fardiaz, Bogor Agricultural University, Indonesia
	10:30 - 11:00am	Morning Tea Break
	Session 2	Food Safety in ASEAN
	Session 2 11:00 - 11:30am	Food Safety in ASEAN  Risk Assessment of Food Additives  Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand
		Risk Assessment of Food Additives
	11:00 - 11:30am	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand  Import & Export Control for Food Safety Ms. Keiko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau,
	11:00 - 11:30am 11:30 - 12:00pm	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand  Import & Export Control for Food Safety Ms. Keiko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW), Japan  Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience
	11:00 - 11:30am 11:30 - 12:00pm 12:00 - 12:30pm	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand  Import & Export Control for Food Safety Ms. Keiko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW), Japan  Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience Ms. Chitra Settaudom, Food and Drug Administration, Thailand
	11:00 - 11:30am 11:30 - 12:00pm 12:00 - 12:30pm 12:30 - 2:00pm	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand  Import & Export Control for Food Safety Ms. Keiko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW), Japan  Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience Ms. Chitra Settaudom, Food and Drug Administration, Thailand  Lunch
	11:00 - 11:30am 11:30 - 12:00pm 12:00 - 12:30pm 12:30 - 2:00pm Session 3	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand  Import & Export Control for Food Safety Ms. Keiko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW), Japan  Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience Ms. Chitra Settaudom, Food and Drug Administration, Thailand  Lunch  Communication Strategies for Food Safety and Nutrition Education  Risk Communication Strategy for Food Safety
	11:00 - 11:30am 11:30 - 12:00pm 12:00 - 12:30pm 12:30 - 2:00pm Session 3 2:00 - 2:30pm	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand  Import & Export Control for Food Safety Ms. Keiko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW), Japan  Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience Ms. Chitra Settaudom, Food and Drug Administration, Thailand  Lunch  Communication Strategies for Food Safety and Nutrition Education  Risk Communication Strategy for Food Safety Mr. Halim Nababan, National Agency of Drug and Food Control, Indonesia  Perspective of Food Labeling Systems in Japan

#### Workshop and Roundtable discussion on Information on Food Safety and Standards

#### Hiroshi KONO

**Export Promotion Division** Food Industry Affairs Bureau Ministry of Agriculture, Forestry and Fisheries

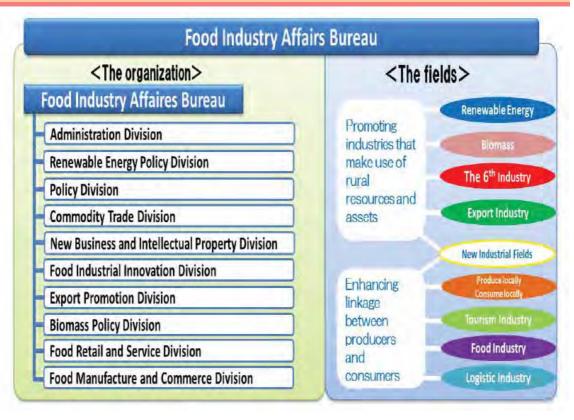
Mar. 4, 2014

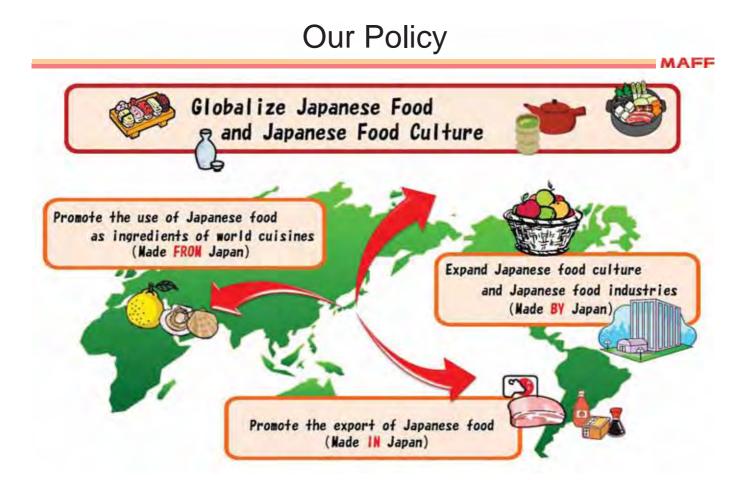
#### Organization of MAFF

Ministry of Agriculture, Forestry and Fisheries Minister's Secretariat Food Safety and Consumer Affairs Bureau Internal Bureau Food Industry Affairs Bureau Agricultural Production Bureau Management Improval Bureau Rural Development Bureau Affiliated Forestry Agency Agencies Fisheries Agency

#### Organization of Food Affairs Bureau

MAFF





#### Washoku, Listed As UNESCO's Intangible Cultural Heritage

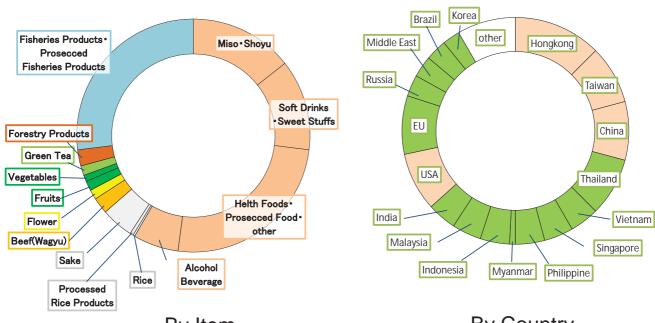
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#### Our Target in 2020

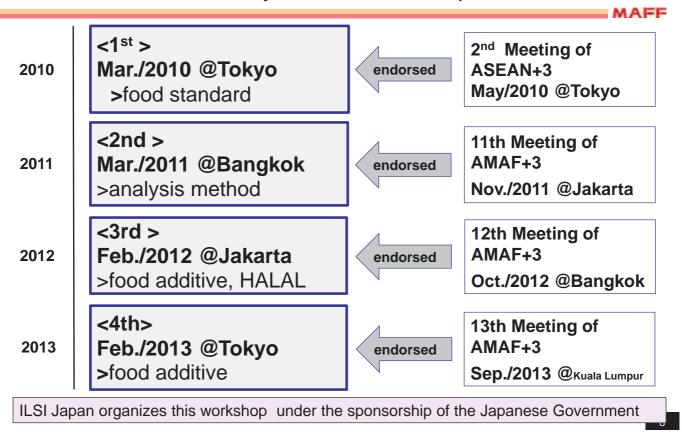
MAFF

#### Total Amount of Export 1,000 bn.¥



By Item By Country

#### History of This Workshop



#### **Expectations For This Workshop**

MAFF

- Enhancement of food safety
- Facilitation of food trade
- Expansion of food business opportunity

MAFE

## Thank you for your attention

## Workshop and Roundtable Discussion on Food Safety and Standards

#### Introduction and Background

- 1. What's ILSI?
- 2. ILSI Japan / MAFF Project
- 3. Workshop and Roundtable Discussion on Food Safety and Standards

2014.03.04, Yangon, Myanmar Hiroaki Hamano, ILSI Japan

# What's ILSI? International Life Sciences Institute (ILSI)



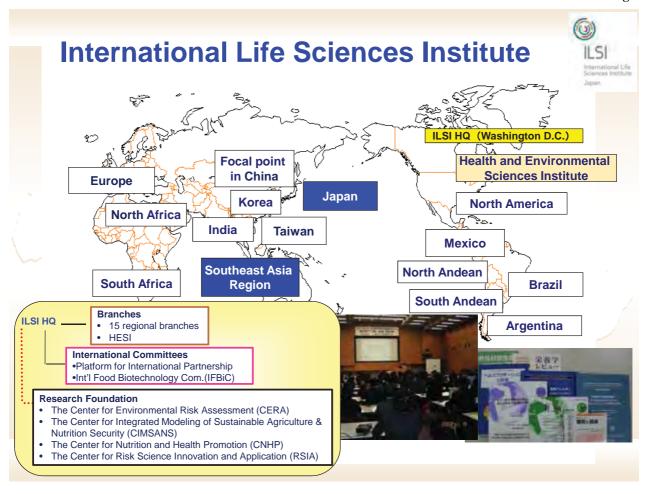
ILSI, established in 1978, is a nonprofit, worldwide organization whose mission is to provide science that improves public health and well-being.

ILSI achieves this mission by fostering collaboration among experts from academia, government, and industry on conducting, gathering, summarizing, and disseminating science.

ILSI's activities focus primarily on nutrition and health promotion; food safety; risk assessment; and the environment.

#### **About ILSI Japan:**

ILSI Japan, established in 1981, is a nonprofit organization and branch of the ILSI global research organization. ILSI Japan plays an active role in helping its mission to generate and disseminate scientific information that is relevant both locally within Japan, regionally in Asia, and globally all over the world.





#### **ILSI Japan / MAFF Project**

#### **Overall Objectives:**

- Foods and Food Additives in Asian Countries for the purpose of supporting food industry to expand overseas businesses in the fast-growing markets of emerging countries
- To facilitate harmonization of food regulations /standards and fair trade, and further to help secure food safety within Asian region, by disseminating and sharing those results investigated

#### **ILSI Japan / MAFF Project**

Funded by Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan

#### 1st Term: June 2009 - March 2010

- Legal Framework on Foods;
- Commodity Food Standards for Instant Noodles,
   Carbonated Soft Drinks, Prepared Frozen Foods and Cow's Milk;
- Codex, Japan, Korea, China, Malaysia, Singapore, the Philippines

#### 2<sup>nd</sup> Term: June 2010 – March 2011

- + Methods of Analysis;
- + Indonesia, Thailand and Vietnam

#### 3<sup>rd</sup> Term: July 2011 – March 2012

+ Legal Framework on Food Additives;
All Countries listed in the above

#### 4th Term: August 2012 - March 2013

+ India, Bangladesh, Nepal and Sri Lanka; All Items Investigated in the above; Web-search System of the Information Collected

	Fiscal Year	Investigation Contents	Countries and Organization Investigated	Workshop / International Conference	Date and Place Held
2	009 (I)	Legal Framework of Foods; Specification & Standards of Instant Noodles, Carbonated Soft Drinks, and Prepared Frozen Foods	Codex, Japan, Korea, China, Malaysia, Singapore, and Philippines	"Investigation of Commodity Food Standards and Methods of Analysis in Asia"	March 29, 2010, Tokyo Japan
2	010 (II)	Plus Cow's Milk, and Methods of Analysis in those Standards	Plus Indonesia, Thailand, and Vietnam	"Sharing Information on Food Standards and Resource and Environmental Conservation in Asia Pacific"	March 4, 2011, Bangkok Thailand
2	011 (III)	Plus Legal Framework of Food Additives; Conditions of Use, and Halal System	Same as all the above	"Sharing Information on Food Standards in Asia"	February 21, 2012, Jakarta Indonesia
2	012 (IV)	Same as all the above	Plus India, Bangladesh, Nepal, and Sri Lanka	"Regulatory Framework and Case Studies of Foods and Food Additives in India, Bangladesh,	February 22, 2013, Tokyo
			mon HW	Nepal, and Sri Lanka"	









#### The 5th ILSI Japan / MAFF Project

#### 5th Term (September 2013 - March 2014):

- Legal Framework of Foods, Commodity Food Standards, Methods of Analysis, Food Additives, and "Functional Foods (incl. Nutrition Labelling and Nutrition/Health Claims, possibly Supplements)"
- > All countries investigated and further expand to Brunei, Cambodia, Lao, Myanmar and Taiwan
- "Workshop and Roundtable Discussions on Food Safety and Standards":

March 4 & 5, 2014, Sedona Hotel in Yangon, Myanmar

	ion / Region / ountry	Legal Framework	Food Standards & Specifications and Methods of Analysis	Conditions for Use of Food Additives	Functional Foods (incl. Nutrition Labelling and Nutrition/Health Claims)
Codex Japan Korea China	Marin Co	2009	2009, 2010	2011	
Taiwan			2013		
 A	Malaysia The Philippines Singapore	2009	2009, 2010	2011	
ASEAN	Indonesia Thailand Vietnam	2010	2010		2013
	Brunei Cambodia Lao Myanmar		2013		
India					
Banglades	sh	2012	2012	2012	
Nepal Sri Lanka					

JAS\*1 Law

for Processed Foods

JAS Standard\*2

Ministry of Agriculture,

Forestry and Fisheries

(MAFF)

Representations

- 45 Food & Liquor Items

Consumer Affairs Agency (CAA)

#### **Commodity Food Standards in Japan**

#### **Food Sanitation Act** Name of the Standard Quality Labelling Standard Standards for Foodstuffs Scope and Additives - 48 Commodity Food Items **Description** - 22 Specific Food Items **Essential Composition** ➤ Milk and Milk Products and Quality Factor - 55 Commodity Food Items Concerning Composition Standards **Food Additives** - 35 Milk and milk products **Contaminants** Ministry of Health, Hygiene Labour and Welfare (MHLW) **Weights and Measures Measurement Act** Ministry of Economy, Trade and Industry Labelling **Health Promotion Act** > Food with Health Claims **Methods of Analysis** -Nutrient Function Claims **Act Against Unjustifiable** and Sampling **Premiums and Misleading** -Foods for Specified Health Uses (FOSHU) Consumer Affairs Agency\*3 ➤ Food for Special Dietary > Fair Competition Code

\*1 Law Concerning Standization and Proper Labelling of Agricultural and Forest Products

\*2 voluntary (other than organic foods) standard with the certification system to attach the JAS Mark

covers

**Labelling Provision of** 

FSA and JAS (New Food

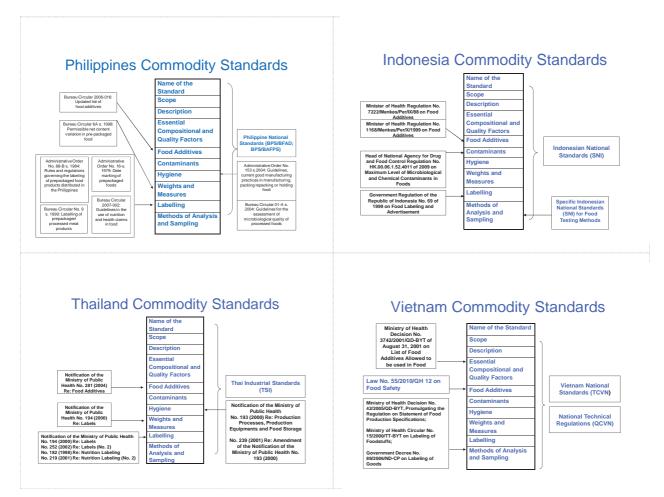
Labelling Act, 2013)

\*3 New governmental organization started in September 2009

Uses

> Nutrition Labeling

CAA consulted by MHLW



# Investigation of Regulations on Nutrition Labelling and Nutrition / Health Claims

#### **Codex STANs/GLs on Nutrition Labelling/Health Claims**

- General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985)
- Adopted1985, Last amended 2010
- Scope, Definitions, General Principles, Mandatory Labelling, Additional Mandatory Requirements, Exenmptions/Optional Labelling
- General Guidelines on Claims (CAC/GL 1-1979)
- Adopted1979, Revised1991, Amended 2009
- Scope & General Principles, Definition, Prohibited/Misleading/Conditional Claims
- Guidelines on Nutrition Labelling (CAC/GL 2-1985)
- Adopted1985, Last revised2011, Last amended2013, Annex (V&M NRVs) adopted2011, Revised2013
- Scope, Definitions, Nutrient Declaration (NRVs), Legibility, Suppl. Nutrition Info.
- Guidelines for Use of Nutrition and Health Claims (CAC/GL 23-1997)
- Adopted1997, Revised2004, Last amended2013, Annex (Health Claims) adopted2009
- Scope, Definitions, Nutrition Labelling, Nutrition Claims, Nutrient Content Claims (Low/Free, Source/High), Comparative Claims, Non-addition Claims, Health Claims, Claims related to Dietary Guidelines or Health Claims
- Guidelines for Vitamin and Mineral Food Supplements (CAC/GL 55-2005)
- Adopted2005; Preamble, Scope, Definitions, Composition, Packaging, Labelling

#### **Investigation Format for Nutrition Labelling Regulations-1.1**

Nutrition Labelling	Codex	Japan
Relevant Laws/Regulations	CODEX STAN 1-1985 CAC/GL 2-1985	Food Sanitation Act (1947) Health Promotion Act (2002) Food Labelling Act (2013)
Nutrient Reference Values (Definitions, NRVs-R/-NCD)	CAC/GL 2-1985 Article 2.5	Definitions for NRVs List of NRVs
Nutrient Declaration (Application: Mandatory or Voluntary)	Article 3.1 Mandatory	Voluntary, Mandatory when nutrition/health claims made
Food Categories Applied	All Prepackaged Foods	All prepackaged foods
<b>Exemptions</b> (Food Categories)	National Authority	Not applicable
(Size of Food Business Operators)	National Authority	Not applicable
Listing of Nutrients (Nutrients, Order)	Article 3.2	Energy, Protein, Fat, Carbohydrate (Available Carbohydrate and D.F.) and Sodium
Optional Ingredients	Article 3.2.2	Any other nutritional constituent

#### **Investigation Format for Nutrition Labelling Regulations-1.2**

Nutrition Labelling	Codex	Japan
Presentation of Nutrient Content (Expression per 100g/ml or serving or package)	Article 3.4	Per 100g/ml, Per package
(Expression in Exact values or Ranges)		Exact values / Range
(Analysis or Calculation Basis)		Analysis Calculation basis allowed
Use of Food Composition Table/ Database for Presentation of Nutrients	`	Allowed
Food Composition Table/ Database for Presentation of Nutrients	٠ ١	Japanese Food Composition Table
Calculation of Nutrients (Energy/Protein/Carbohydrate/Fat)	Article 3.3	Identical to Codex Guidelines
Tolerances and Compliances (Tolerance Limits)	Article 3.5	Values plus/minus 20%, Specific tolerations defined for certain nutrients, such as V.C
Specific Features of Presentation (Format, %NRV Labelling)	Article 3.4.4, 4.2	Tabular format No %NRV labelling applied
(Front of Package Labelling, FOP)	Article 3.4.4, 4.2	No FOP labelling applied

#### **Investigation Format for Nutrition Labelling Regulations-1.3**

Nutrition Labelling	Codex	Japan
Administrations/Compliances for Nutrition Labelling (Governing Authorities/Agencies)	Competent Authorities	Consumer Affairs Agency Local Governments
Inspections and Penalties	•	Periodical inspections Penalties defined

#### **Investigation Format for Nutrition Claims Regulations-2**

Nutrition Claims	Codex	Japan
Relevant Laws/Regulations	CODEX STAN 1-1985 CAC/GL 1- 1979 CAC/GL 23- 1997	Food Sanitation Act (1947) Health Promotion Act (2002) Food Labelling Act (2013)
Definitions (Nutrient Content/Comparative Claims)	CAC/GL 23- 1997 Article 2	Identical to Codex Guidelines
Nutrient Content Claims	Article 5	Conditions defined
Nutrient Comparative Claims	Article 6	Conditions defined
Non-addition Claims (Non-addition of Sugars/Sodium Salts)	Article 7	Conditions defined
Administrations/Compliances for Nutrition Claims (Governing Authorities/ Agencies)	Competent Authorities	Consumer Affairs Agency Local Governments
Inspections and Penalties		Periodical Inspections Penalties defined

#### **Investigation Format for Health Claims Regulations-3.1**

Health Claims	Codex	Japan
Relevant Laws/Regulations	CODEX STAN 1-1985 CAC/GL 1-1979 CAC/GL 23-1997	Food Sanitation Act (1947) Health Promotion Act (2002) Food Labelling Act (2013)
Definitions (Collective Name of Foods with Health Claims, if applicable)	Article 2	Foods with Health Claims (FHC)
Nutrient Function Claims (Collective Name of the Foods, if applicable)	Article 2	Foods with Nutrient Function Claims (FNFC)*, applicable to all prepackaged foods including Tablet or Capsule type of products
Other Function Claims (Collective Name of the Foods, if applicable)	Article 2	Foods for Specified Health Uses (FOSHU)**, applicable to all prepackaged foods
Reduction of Disease Risk Claims (Collective Name of Foods Applied)	Article 2	Foods for Specified Health Uses (FOSHU)***, applicable to all prepackaged foods
Types of Approval/Certification (Standardized/ Pre-authorized Claims)	Article 8.1.2, 8.2	FNFC: Pre-authorized Claims/Self-determined
(Food Product/Constituent Specific Approval )	Article 8.1.2, 8.2	FOSHU: Product Specific

#### **Investigation Format for Health Claims Regulations-3.2**

Health Claims	Codex	Japan
Scientific Substantiation of Health Claims	Article 8,	Documentation required****
Process for the Substantiation (Organizational Systems, Governing Authority/Agency/ Commission)	Annex Article 3.1	Consumer Affairs Agency→ Consumer Commission (substantiation)→ Food Safety Commission (safety assessment)→ Ministry of Health, Labour and Welfare → CAA
Criteria for the Substantiation and/or Consideration of the Evidence	Annex Article 3.2, 3.3	Documentation required****
Specific Safety Concerns	Annex Article 4	Documentation required****
Re-evaluation	Annex Article 5	Not Specified
Product Quality Concerns (GMP, ISO, HACCP or Other Measures)		Documentation required****
Adverse Event Reporting System (Mandatory/Voluntary)		Not Specified
Administrations/Compliances for Health Claims (Governing Authorities/ Agencies)	Competent Authorities	Consumer Affairs Agency Local Governments
Inspections and Penalties		Periodical Inspections Penalties defined

<sup>\*\*\*\*</sup> List of Documentation Required

List of Nutrient Function Claims Approved/Authorized
 List of Other Function Claims Approved/Authorized
 List of Reduction of Disease Risk Claims Approved/Authorized

#### **Investigation Format for Regulations for Supplements-3.3**

Health Claims	Codex	Japan
Relevant Laws/Regulations for (Dietary/Food/Health) Supplements	CAC/GL 55- 2005	Not specifically defined, Treated in the same manner as foods
Definitions (Dietary Supplements, and/or Food Supplements, and/or Health Supplements)	Article 2	Not specifically defined Treated in the same manner as foods
Administrations/Compliances for the Supplements (Governing Authorities/Agencies)		Not specifically defined Treated in the same manner as foods

#### **Investigation of Nutrition Labelling and Supplements**

Nutrition Labelling	Brunei	Cambodia
Nutrient Declaration (Application: Mandatory or Voluntary)	Voluntary, except - Certain flour, bakery and cereal products; - Infant formulae; - Special purpose foods	Voluntary, Mandatory for all prepackaged foods for which nutrition or health claims, as defined in the Guidelines for Use of Nutrition and Health Claims (CAC/GL 23-1997), are made.
Listing of Nutrients (Nutrients, Order)	<ul> <li>Energy in kcal, KJ or both</li> <li>Protein (g)</li> <li>Fat (g)</li> <li>Carbohydrate (g)</li> <li>Other nutrients for which nutrition claims are made or any other nutrients to be declared</li> </ul>	<ul> <li>Energy value,</li> <li>Protein,</li> <li>Available carbohydrate (i.e. dietary carbohydrate excluding dietary fibre),</li> <li>Fat,</li> <li>Saturated fat,</li> <li>Sodium and</li> <li>Total sugars;</li> <li>The amount of any other nutrient for which a nutrition or health claim is made</li> </ul>
Dietary, Food, and/or Health Supplements	Not specified	Not specified

#### **Investigation of Nutrition Labelling and Supplements**

	Nutrition Labelling	Indonesia	Lao
]	Nutrient Declaration (Application: Mandatory or Voluntary)	Voluntary, Mandatory only for food: a. accompanied by statement that the food contains vitamin, mineral, and other nutrients added to it; or b. required by virtue of the provisions in applicable rules and regulations in the field of food quality any food nutrition, shall be enriched with vitamin, mineral and or any other nutrients.	Voluntary, Mandatory for foods which nutrition claim are made.
]	Listing of Nutrients (Nutrients, Order)	- Energy - Fat. - Protein. - Carbohydrate(including dietary fibre) - Sodium	- Energy, - Protein, - Fat , - Carbohydrate, - Vitamins and Minerals when claims are made
]	Dietary, Food, and/or Health Supplements	Food supplements are products intended to supplement the nutritional needs of food, containing one or more ingredients such as vitamins, minerals, amino acids, or other materials (plant or not plant) which have nutritional value and/or physiological effects in concentrated amounts.	Not specified

#### **Investigation of Nutrition Labelling and Supplements**

Nutrition Labelling	Malaysia	Myanmar
Nutrient Declaration (Application: Mandatory or Voluntary)	Mandatory for a wide variety of processed and packaged foods.	Not specified (Voluntary)
Listing of Nutrients (Nutrients, Order)	<ul> <li>Energy</li> <li>Protein,</li> <li>Carbohydrate (excluding dietary fibre),</li> <li>Fat,</li> <li>Total sugars (for ready-to-drink beverages only),</li> <li>Nutrients as claimed</li> </ul>	Not specified
Dietary, Food, and/or Health Supplements	Not Applicable Claim for dietary/health supplements is regulated by the National Pharmaceutical Control Bureau, Ministry of Health Malaysia	Not specified

#### **Investigation of Nutrition Labelling**

Voluntary,	
Nutrient Declaration (Application: Mandatory or Voluntary)  Listing of Nutrients (Nutrients (Nutrients (Nutrients (Order)  Nutrients (Order)  Nutrients (Nutrients (Nutrients (Nutrients (Order)  Nutrients (Nutrients (Nutr	edible oup of as an foods.

#### **Investigation of Supplements**

Nutrition Labelling	Philippines	Singapore
Dietary, Food, and/or Health Supplements	A processed food product intended to supplement the diet that bears or contains one or more of the following dietary ingredients: vitamin, mineral, amino acid, herb, or other dietary substance of botanical, animal, artificial or natural origin to increase the total daily intake in amounts conforming to the latest Philippine Recommended Energy and Nutrient Intakes or internationally agreed minimum daily requirements.  It is usually in the form of capsules, tablets, liquid, gels, powders or pills and is not represented for use as a conventional food or as the sole item of a meal or diet or a replacement for drugs and medicines.	There is currently no legal definition for the terms "dietary/food/health supplement" in Singapore. However, the Health Sciences Authority has a working definition for health supplements at the 'Guidelines for Health Supplements' under http://www.hsa.gov.sg/publish/hsaportal/en/health_products_regulation/complementary_medicines/supplements.html

#### **Investigation of Nutrition Labelling**

Investigation of Nutrition Labelling		
Nutrition Labelling	Thailand	Vietnam
Nutrient Declaration (Application: Mandatory or Voluntary)	Voluntary, Mandatory for 1) foods include - foods with nutrition claim - for enriched/fortified foods - foods for special dietary use 2) some kind of snack foods (potato chip, popcorn, extruded snack, biscuit/cracker, and filled wafer)	Voluntary, Mandatory for functional foods, food supplements, fortified foods and food for children aged 0-36 months (Food Safety Law, Decree No. 38/2012/ND-CP of the Government dated 25 Apr 2012, Section VI: Article 18.2)
Listing of Nutrients (Nutrients, Order)	1) Fully format shall declare: - 4 core nutrients (E, C, P & F) and - Saturated fat, -Cholesterol, - Dietary fibre, -Sugar, - Sodium, - Vitamin A, -Vitamin B1, -V.B2 - Calcium, - Iron, - Nutrient as claimed  2) Simplified format shall declare - 4 core nutrients (E, C, P & F) - Sugar, - Sodium, - Nutrient as claimed	- Energy, - Carbohydrate, - Protein, - Fat

#### **Investigation of Supplements**

Nutrition Labelling	Thailand	Vietnam
Dietary, Food, and/or Health Supplements	Food supplement means products taken for consume other than conventional foods which contain nutrients or other substances as ingredients, are in forms of tablets, capsules, powders, flakes, liquids or others; which are not conventional foods for consumers who expect for benefit of health promotion.	Food Safety Law No. 55/2010/QH12 dated 17 Jun 2010.

Workshop and Roundtable Discussion on Food Safety and Standards
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Organizer: ILSI Japan and ILSI SEAR

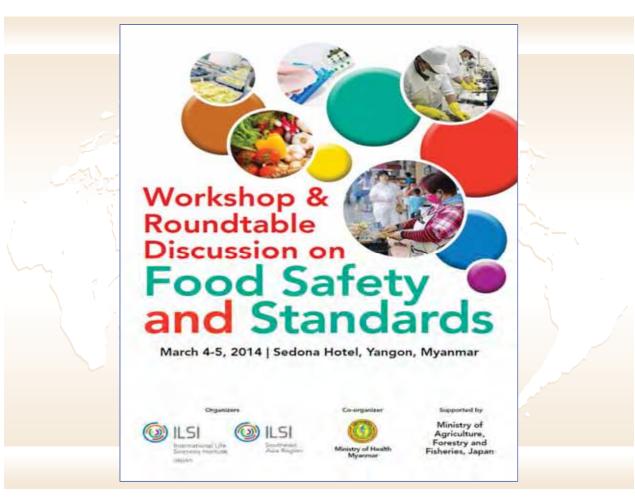
Co-organizer: FDA, Myanmar

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

Background: Cambodia, Lao, Myanmar and Vietnam (CLMV) of ASEAN are rapidly developing with more open economies. In view of this, improvements to food safety control systems and standards are increasingly important to ensure fair practices in food trade and to protect public health. The workshop and roundtable discussion therefore aims to build capacity in food safety control systems among CLMV countries and identify further needs for the future.

#### **Objectives:**

- (1) Share information on international and regional (ASEAN) food safety framework and standards with CLMV countries
- (2) Share best practices on risk communication and consumer education in relation to food safety issues with stakeholders from CLMV countries
- (3) Discuss and identify capacity gaps in food safety control systems and food safety standardization systems for CLMV countries



		TACKLING FOOD SAFETY CHALLENGES March 5, 2014	
11:00 - 9:00am	Registration	Co-chairp	Prof. Dadi Ferditz, Bogor Agricultural University, Indonesia
Opening Session		9:00 5:40km	Prof. Songrak Scienceses, Institute of Nutrition, Michidel University, Their
9:00 - 9:30am	Introduction & Opening Servion	A Land Land	Welcome and Introduction
	Opening Remarks  the French Kone, Expert Fromenium Diseases, Food Industry Affairs Blannas, Moretry of Agriculture, Foreign and Federice, Japans  Welcoming Speech  De Zee Wir. Food and Drug Administration, Ministry of Health, Mysemial Introduction and Background  Mr. French Hammer, International Clin Sciences Introduction and Background	9:10 - 10:00am	Updates on Food Safety Regulatory Frameworks  Cambodia  Mr. Sin Sideth Deputy Climative, Department of Laboratory, CAMCONTRUE Moistry of Communic, Cambodia Lao PDR  Ms. Wengsay Vanallalom
Session 1	International and Regional Food Safety Framework and Standards		Director Food Control Ownies. Food and Ding Department. Ministry of Health, Lee PDR
9:10 - 10:00am	International Food Standards: Codex Alimentarius and Thailand's Experience Dr. Namacorn Anaesto, National Busses of Agricultural Commodity and Food Standards (ACES), Thailand		Myanmar  - Dr. Khin Saw Hila Departy Diserdia, Food Commit. Food and Drug Administration, Missitry of Health, Myanmar Vietnam  - Ms. Nguyen Thi Minh Ha Departy Diserton, Cooley Office, Visinsam Food Administration, Mislany of Health, Visinsam
10:00 - 10:30ams	Regulatory Frameworks and Key Challenges of Food Sefety in ASEAN Countries Field Chall Faction, Sugar Agricultural University, Indoormals		
10:30 - 11:00am	Morning Tea Break		
Session 2	Food Safety in ASEAN	16:00 - 10:00au	Morning Tea Breek
11:00 - 11:30am	Risk Assessment of Food Additives Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand	10:20 - 12:30pm	
11:30 - 12:00pm	Import & Export Control for Food Safety Ms. Korko Yamamoto, Department of Food Safety, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare (MHLW), Japan		Key Topics Food Additive Safety - Consumer Protection
12:00 - 12:30pm	Food Safety and Quality Improvement for SMEs - Challenges and Thai		SME Education
	Experience Ms. Chitra Settaudom, Food and Drug Administration, Thailand	12:30pm	Lunch
12:30 - 2:00pm	Lunch	1	
Session 3	Communication Strategies for Food Safety and Nutrition Education	1	
2:00 - 2:30pm	Risk Communication Strategy for Food Safety Mt. Halim Nababan, National Agency of Drug and Food Control, Indonesia		
2:30 - 3:00pm	Perspective of Food Labeling Systems in Japan Mr. Mineo Ando, Food Labeling Division, Consumer Affairs Agency (CAA), Japan		
3:00 - 4:00pm Discussion			
4:00pm	Closing		

# INTERNATIONAL FOOD STANDARDS: CODEX Alimentarius and Thailand's Experience

Namaporn Attaviroj

National Bureau of Agricultural Commodity and Food Standards (ACFS)

Workshop and Roundtable Discussion on Food Safety and Standards
March 4-5, 2014
Yangon, Myanmar

#### **Presentation outline**

- History of Codex
  - > CAC Mandate and Organization
  - > Codex Alimentarius
- Thailand and Codex
  - Working Process for Codex Standard Setting of Thai CCP
- Participation in Codex

2

## **History of Codex**

- •1945 : FAO was founded, with responsibilities covering nutrition and associated international food standards.
- •1948: WHO was founded, with responsibilities covering human health and, in particular, a mandate to establish food standards.



Lord Boyd-Orr the first D-G of FAO

The Preamble of FAO at the entrance

## TO THE CONSTITUTION OF FAO

THE NATIONS ACCEPTING THIS CONSTITUTION BEING DETERMINED TO PROMOTE THE COMMON WELFARE BY FURTHERING SEPARATE AND COLLECTIVE ACTION ON THEIR PART FOR THE PURPOSES OF:

RAISING LEVELS OF NUTRITION AND STANDARDS OF LIVING OF THE PEOPLES UNDER THEIR RESPECTIVE JURISDICTIONS.

SECURING IMPROVEMENTS IN THE EFFICIENCY OF THE PRODUCTION AND DISTRIBUTION OF ALL FOOD AND AGRICULTURAL PRODUCTS.

BETTERING THE CONDITION OF RURAL POPULATIONS.

AND THUS CONTRIBUTING TOWARD AN EXPANDING WORLD ECONOMY,

HEREBY ESTABLISH THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS THROUGH WHIGH THE MEMBERS WILL REPORT TO ONE ANOTHER ON THE MEASURES TAKEN AND THE PROGRESS ACHIEVED IN THE FIELDS OF ACTION SET FORTH ABOVE.

## **History of Codex**

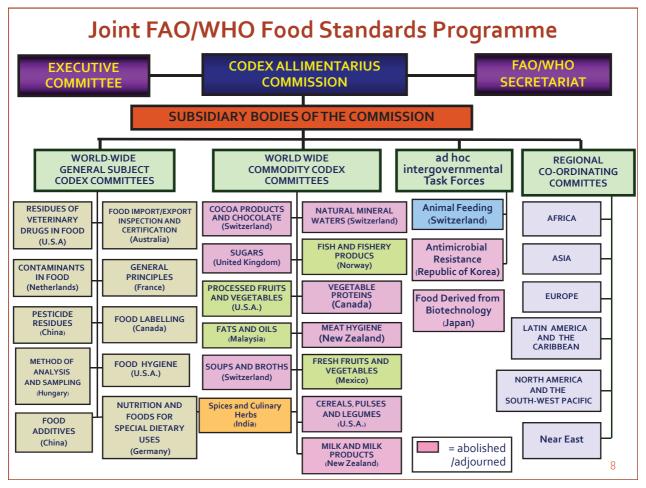
- •1961: FAO Conference established a Codex Alimentarius Commission (CAC) and requested an early endorsement by WHO of a joint FAO/WHO food standards programme.
- •1962: the Joint FAO/WHO Food Standards Conference requested the CAC to implement a Joint FAO/WHO food standards programme and create the Codex Alimentarius.
- •1963: World Health Assembly (WHA) approved the establishment of the Joint FAO/WHO Food Standards Programme and adopted the Status of the CAC.

#### **Codex Alimentarius Commission**

- Intergovernmental standards-setting body
- •185 Member countries
- •1 Member organization (European Community)
- •220 Codex observers (IGOs, NGOs and UN agencies)

# Codex Alimentarius Commission - its mandate -

- Dual objective:
  - •Protecting the health of consumers
  - •Facilitating fair practices in food trade
- Non-mandatory in nature



#### **Codex Alimentarius**

The Codex Alimentarius or the food law or code is a collection of:

- •Codex standards\*...product characteristics (commodity or regulated one i.e. MRLs),
- •Codex codes of practices\*... i.e. of hygienic practices
- Guidelines\*...principles and guidelines
- Other related texts or recommendations

\*Collectively, all referred to as Codex standards

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#### Recognition and status that Codex standards

Since 1995 Codex standards have become international benchmarks for harmonization under the SPS and TBT Agreements of WTO:

- •SPS Agreement on the application of Sanitary and Phytosanitary Measures
- •**TBT Agreement** on Technical Barriers to Trade: pertaining to product description, labelling, packaging and quality descriptors

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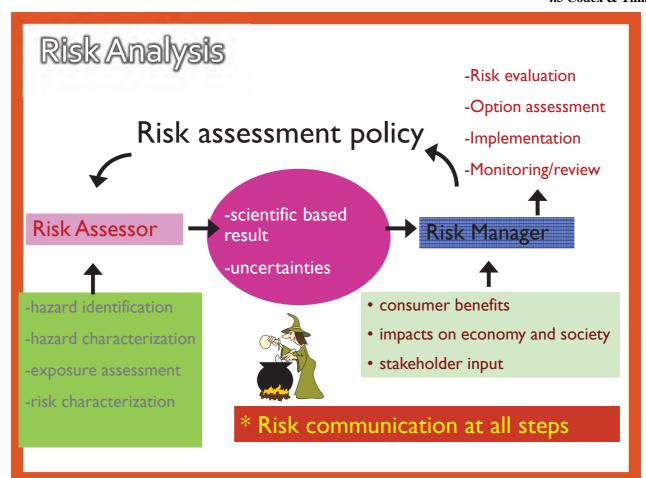
#### **Codex Standards**

#### Codex standards— a valuable international food standards

- Based on risk analysis, sound science (scientific advice), transparency and inclusiveness
- Developed by international consensus of members governments and involvement of stakeholders i.e. IGOs, NGOs and UN agencies
- Contributes to global harmonization of food standards

Type of Text	Availability
Code of Practice	49
Guidelines	70
MRLs	4
Standards	1
Miscellaneous	212
Total	336

# Risk Analysis –the link Risk Risk management Risk communication



#### **Risk Analysis Overview**

- •Risk analysis as elaborated by FAO/WHO is:
  - An internationally developed and accepted approach for enhancing food control systems
  - A systematic process that facilitates openness, transparency and inclusiveness
  - Facilitates harmonization of food safety approaches
  - Enables preparedness and rapid response



#### Scientific advice

#### International Risk Assessment

- JECFA (Joint FAO/WHO Expert Committee on Food Additives)
  - food additives, contaminants, residues of veterinary drugs in foods
- JMPR (Joint FAO/WHO Meeting on Pesticide Residues)
  - pesticide residues
- JEMRA (Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment)
  - microbiological hazards
- •Ad hoc expert consultations and technical workshops
  - biotechnology, probiotics, veterinary drug residues without ADIs/MRLs
- JEMNU (Joint FAO/WHO Meeting on Nutrition)







CAC Session in Rome, July 2012

# Thailand's Experience in Codex

- 208 -

### Thailand and Codex



Food Quality and Safety: Key Factors

- National Standard Development
- Standards implementation/enforcement
- Application of risk analysis principles
- Education and communication (governments, academia, industries, farmers, consumers)
- Active participation in Codex and other international meetings



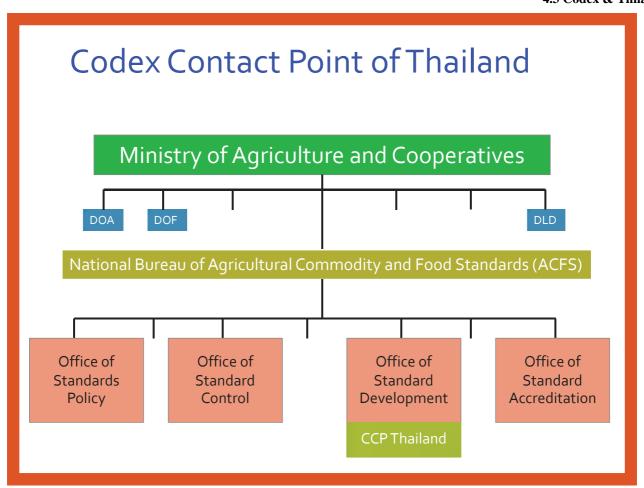


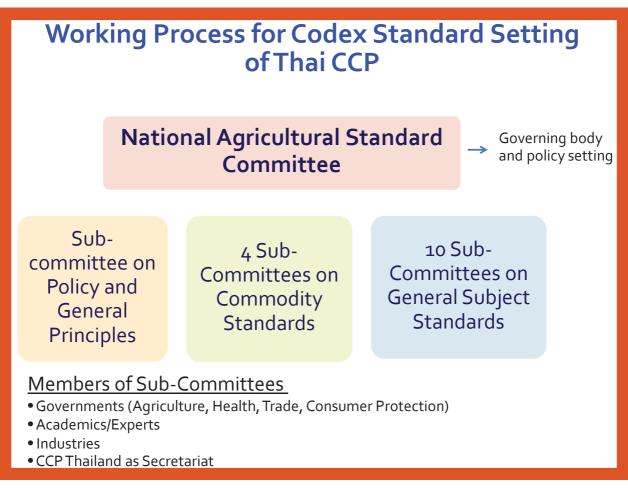
## Thailand and Codex

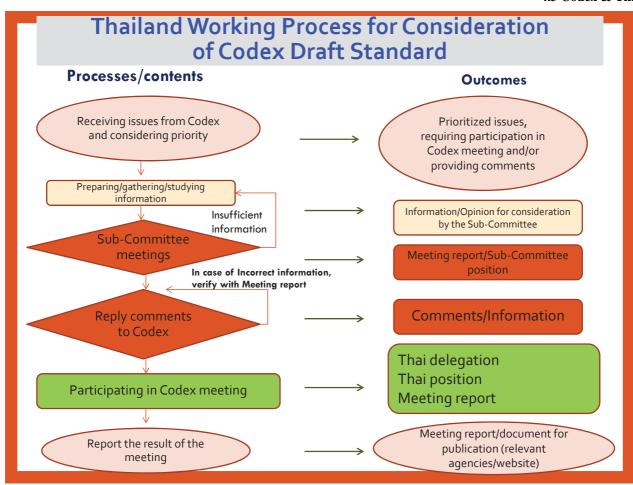


- Codex established since 1963
- CODEX5
- Last year is the Codex Golden Jubilee Year
- •Thailand is one of 30 countries that became the member of Codex since the establishment in 1963
- •Thailand Codex Contact Point also cerebrated Codex Golden Jubilee in Thailand on 28 May 2013









## Participation in Codex Standard Setting

- Provide written comments
- Participate and providing comments in Commission/Committee/Task Force
- Participate in working group (physical/electronic)
- Prepare discussion paper for setting new standard proposed to Codex
- Host Committee/Task Force/Physical

working group meetings

 Adopt Codex standards as national standards



### Draft Codex Standards initiated by Thailand

- Fresh Fruits and Vegetables
  - Standard for Rambutan
  - Standard for Durian (Draft)
- Processed Fruits and Vegetables
  - Standard for Pickled Fruits and Vegetables
  - Standard for Bamboo shoots
  - Asian Regional Standard for Chili sauce
- Fats and Oils
  - Analysis methods of fat in coconut milk
  - Amendment of Standard for Rice Bran Oil
- Fish and Fishery Products
  - Standard for Fish Sauce & Code of Practice for Fish Sauce
  - Nitrogen factor of tilapia in Standard for Quick Frozen Fish Sticks (Fish Fingers
- Pesticide Residues
  - Study for the establishment of approximately 30 MRLs
  - Co-chair of the CCPR Working Group on Minor Uses and Specialty Crops



# Thailand as a host country for Codex meetings

- •34<sup>th</sup> Codex Committee on Food Hygiene in 2001
- •28th CCNFSDU in 2006
- •20<sup>th</sup> CCFICS in 2013
- •7<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> CCASIA in 1990, 1997, 1999
- •Chaired the Ad hoc Codex Intergovernmental Task Force on the Processing and Handling of Quick Frozen Foods in 2008
- •18th CCFFV in 2014







# Adoption of Codex Standards as National Standards

- Thailand has adopted Codex Standards as national standards e.g.
  - Codex General Principles of Food Hygiene
  - Working Principles for Risk Analysis for Application in the Framework of the Codex Alimentarius
  - Principles for the Establishment and Application of Microbiological Criteria for Foods
  - Principles for the Risk Analysis of Foods Derived from Modern Biotechnology
  - Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants





# Adaptation of Codex Standards as National Standards

# ☐ Thailand has adapted Codex Standards to national standards

- ■Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods
- Principles for Traceability / Product Tracing as a Tool Within a Food Inspection and Certification System
- ■Code of Practice for Fish and Fishery Products
- ■Code of Hygienic Practice for Fresh Fruits and Vegetables



# **Summary**

- •Thailand was a member of Codex since the establishment in 1963
- Active participation in Codex working processes at global, regional and national is an exceptional learning experience
- Adoption and implementation of Codex standards have been beneficial to consumer protection and enhancement of domestic and international food trades



## Regulatory Frameworks and Key Challenges of Food Safety in ASEAN Countries

# Dedi Fardiaz Department of Food Science and Technology SEAFAST Center, Bogor Agricultural University Indonesia

"Workshop and Roundtable Discussion on Food Safety and Standards" Yangon, Myanmar, March 4-5, 2014

Dedi Fardiaz Yangon, Myanmar, March 4, 2014



#### **ASEAN COMMUNITY 2015**



# ASEAN Common Food Control Requirements (ACFCR)

- 1. ASEAN Common Principles for Food Control Systems (ACPFCS)
- 2. ASEAN Common Principles and Requirements for the Labelling of Prepackaged Food (ACPRLPF)
- 3. ASEAN Common Principles and Requirements for Food Hygiene (ACPRFH)

Dedi Fardiaz

Yangon, Myanmar, March 4, 2014

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# **ASEAN Common Principles for Food Control Systems**Establishment of Food Control Regulatory Framework and Infrastructure

Proper food control infrastructure and regulatory framework with all the essential components should be in place to ensure effective operation of the food control system. These include:

#### 1. Food Legislation

Food legislation should provide a high level of health protection; and provide for mechanism facilitating food recall in case of non-compliance.

#### 2. Food Control Management

A clear policy that mandates a responsible authority or a well defined coordinated mechanism among all agencies involved should be established.

#### 3. Inspection Activities

The administration and implementation of food laws require implementation of inspection programmes carried out by competent personnel.

#### 4. Laboratory Services

Analytical laboratories providing scientific services are essential components of a food control system.

#### 5. Information, Education, Communication, and Training

An increasingly important role for food control systems is the delivery of information, education and advice to stakeholders. Food control agencies should address the specific training needs for their Food inspectors and Laboratory Analysts.

#### **ASEAN Common Principles for Food Control Systems**

**Establishment of Food Control Regulatory Framework and Infrastructure** 

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A clear policy that mandates a responsible authority or a well defined coordinated mechanism among all agencies involved should be established

#### 3. Inspection Activities

The administration and implementation of food laws require implementation of inspection programmes carried out by competent personnel.

#### 4. Laboratory Services

Analytical laboratories providing scientific services are essential components of a food control system.

Codex standards, guidelines and codes of hygienic practices have been used by WTO's SPS Agreement for sanitary and phytosanitary measures.

It is in the best interests of ASEAN food control agencies to make use of the Codex standards as benchmark standards for the development of their national standards.

#### 5. Information, Education, Communication, and Training

An increasingly important role for food control systems is the delivery of information, education and advice to stakeholders. Food control agencies should address the specific training needs of their food inspectors and laboratory analysts as a high priority.

### **Codex Commodity (Food) Standards Format**

Name of the Standard

Scope

Description

Essential Composition and Quality Factor

Food Additives
Contaminant

Hygiene

Hygiene

Weights and Measures

Labelling

Methods of Analysis and Sampling

ASEAN Food Reference Laboratory

ASEAN Food Testing Laboratory Committee

Pageon, Myanniar, March 4, 2014

ASEAN Food Testing Laboratory Network

### Why Food Category System?

The ASEAN Food Safety Standards Harmonization Workshop Series sponsored by ILSI Southeast Asia Region have been used as a forum for regulators in the region:

- to facilitate the exchange of information and scientific updates in food safety and standards;
- to discuss and share potential mechanisms for improvement of food safety standards in the ASEAN countries;
- to facilitate harmonization efforts towards Codex, where they exist; or towards scientifically-sound regional standards where Codex standards are not in place; and
- to identify gaps for exposure data development and risk assessment capacity building.

Dedi Fardiaz

Yangon, Myanmar, March 4, 2014

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### Why Food Category System?

- In the first three workshops, the Working Group agreed on the use of Codex General Standards for Food Additives (GSFA) as the basis for harmonization.
- A template following the GSFA Food Category System was used to compare national food safety standards and that of GSFA for similarities and differences.
- To further facilitate the harmonization efforts, an online database of ASEAN Food Safety Standards was developed and maintained by ILSI SEA Region, which contains the national data that can be compared with Codex GSFA and provided the harmonization progress.

## Food Category System (GSFA, 2005)

No.	Name of Food
01.0	Dairy products and analogues, excluding products of food category 02.0
02.0	Fats and oils, and fat emulsions
03.0	Edible ices, including sherbet and sorbet
04.0	Fruits and vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
05.0	Confectionary
06.0	Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses and legumes, excluding bakery wares of food category 07.0
07.0	Bakery wares
08.0	Meat and meat products, including poultry and game
09.0	Fish and fish products, including mollusks, crustaceans, and echinoderms
10.0	Eggs and egg products
11.0	Sweeteners, including honey
12.0	Salts, spices, soups, sauces, salads, protein products (including soybean protein products) and fermented soybean products
13.0	Foodstuffs intended for particular nutritional uses
14.0	Beverages, excluding dairy products
15.0	Ready-to-eat savouries
16.0 Dedi-Fardiaz	Composite foods - foods that could not be placed in categories 01 - 15.

## **General Standard for Food Additives**

FAST GREEN FCF INS: 143 Function: Colour

Food Cat. No.	Food Category	Max Level
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	100 mg/kg
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	100 mg/kg
02.1.3	Lard, tallow, fish oil, and other animal fats	GMP
03.0	Edible ices, including sherbet and sorbet	100 mg/kg
04.1.2.4	Canned or bottled (pasteurized) fruit	200 mg/kg
04.1.2.5	Jams, jellies, marmelades	400 mg/kg
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	300 mg/kg
04.2.2.4	Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200 mg/kg
D <b>Q5-3</b> rdiaz	Chewing gum Yangon, Myanmar, March 4, 2014	300 mg/kg



This database contains National Food Safety Standards of ASEAN countries and the comparison with Codex GSFA, to support the harmonization efforts in the region. This database is maintained and periodically updated by ILSI Southeast Asia Region Food Safety and Risk Assessment Task Force.

#### Online Food Safety Standards Database generated by ILSI SEA Region:

- Consists of Codex GSFA and 10 ASEAN countries' standards;
- Facilitate systematic review and periodical updating by participating ASEAN countries; and
- Helpful tool to track harmonization status.

Dedi Fardiaz Yangon, Myanmar, March 4, 2014 11



Food Cat. No.	Food Category	GSFA	В	С	T	L	M	М	Р	S	Т	V
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	100 mg/kg										
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	100 mg/kg										
02.1.3	Lard, tallow, fish oil, and other animal fats	GMP										
03.0	Edible ices, including sherbet and sorbet	100 mg/kg										
04.1.2.4	Canned or bottled (pasteurized) fruit	200 mg/kg										
04.1.2.5	Jams, jellies, marmelades	400 mg/kg										
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	300 mg/kg										
05.3 <sup>Dedi Fa</sup>	Chewing gum Yangon, Myanmar,	<sup>M</sup> 300 mg/kg <sup>4</sup>									12	

#### Additives Optional, select one [-- 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 Carnauba wax Citric acid Diammonium hydrogen phosphate Dicalcium diphosphate Dipotassium dihydrogen phosphate Dipotassium tartrate Disodium dihydrogen phosphate

#### Food Categories Optional, select one

01.0.0.0 - DAIRY PRODUCTS AND ANALOGUES, 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 01.2.0.0 - Fermented and renneted milk products 01.2.1.0 - FERMENTED MILKS (PLAIN) 01.2.1.1 - Fermented milks (plain), not heat-tre 01.2.1.2 - Fermented milks (plain), heat-treated 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 UHT CREAMS, Countries Optional, select one Brunei

Brunei
Cambodia
Indonesia
Lao PDR
Malaysia
Myanmar
Philippines
Singapore
Thailand
Vietnam

#### Status of Harmonization?

edi Fardiaz Yangon, Seafchiarch 4, 2014

Future ASEAN Single Market supported

The Trade Intra ASEAN facilitated

The ASEAN Food Safety Standards Harmonization Workshop Series

ACCSQ Prepared Foodstuff Product Working Group

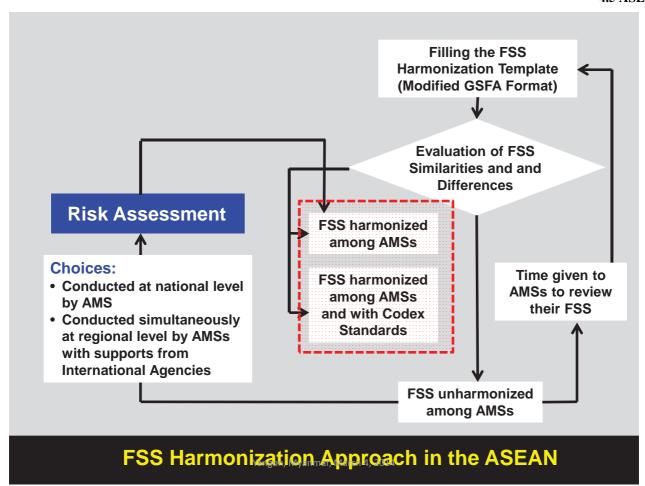
Task Force on Harmonization of Food Safety Standards for Prepared Foodstuff was established

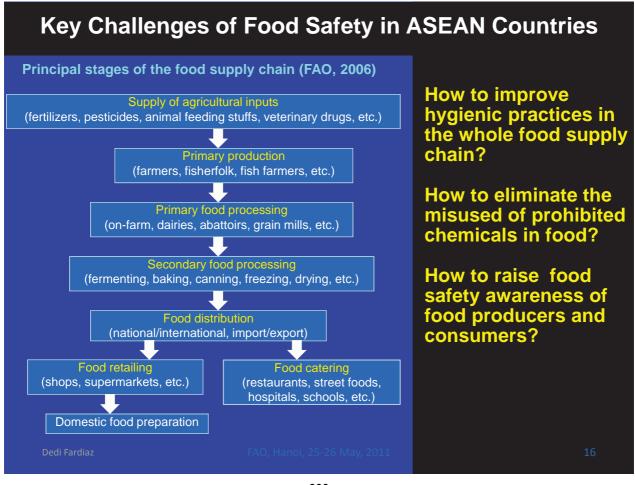
at the 8<sup>th</sup> ACCSQ PFPWG Meeting (Palembang, Indonesia, 21-22 August 2008)

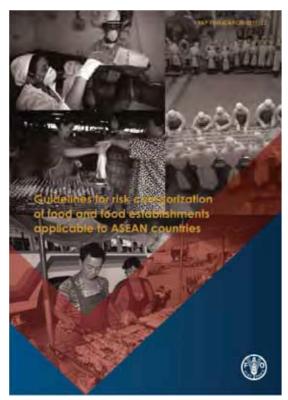
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Yangon, Myanmar, March 4, 2014

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Guidelines for risk categorization of food and food establishments applicable to **ASEAN** countries

2011, FAO ROAP, Bangkok, Thailand www.FAO.org/docrep/015/i2448e/2448e00.htm

Fish contaminated by Fish-borne Zoonotic Trematodes (FZTs) such as Clonorchis and Ophisthorchis (liver flukes) cause liver infections. The contaminated fish will pose a health risk to people that commonly consume raw, inadequately cooked, or pickled fish.

Listed food safety concerns in ASEAN countries (FAO/WHO regional workshop, Bali, Indonesia, 18-20 November 2010)

- Salmonella, E coli in raw vegetables and meat products.
- Non-permitted color in street-foods, and sudan red in chilli sauce.
- Borax in meat and meat products including
- Formalin in tofu and wet noodles.
- Aflatoxins in nutmeg and peanuts.
- Pesticide residues in vegetables and fruits.
- Veterinary drug residues in prawn and other fishery products.

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#### **Common Risk Factors**

- cross contamination
- food from unsafe sources
- inadequate cooking
- improper holding temperatures
- contaminated equipment
- poor personal hygiene food handlers' health status
- water quality
- presence of pests

Should we give special attention to food-supply-chain commonly practiced in ASEAN countries?

#### **Examples:**

- Small farmers
- Small fishermen
- SMEs (processors)
- Hosehold food industries
- Traditional markets
- Streetfood vendors
- SMEs (Caterers, restaurants, etc)

#### **Summary**

- Facing an ASEAN Economic Community in 2015, various efforts have been made nationally by AMSs and regionally through ASEAN cooperation. Among others is the development of ACFCR (ASEAN Common Food Control Requirements), a guideline for strengthening national food control systems in AMSs.
- Harmonization of food safety standards is another effort that will facilitate the trade intra ASEAN and support the future ASEAN single market. Decision tree approach has been developed as a mean for food safety standards harmonization.
- Key challenges in improving food safety in ASEAN: (a) How to improve hygienic practices in the whole food supply chain?; (b) How to eliminate the misused of prohibited chemicals in food?; and (c) How to raise food safety awareness of food producers and consumers?

di Fardiaz Yangon, Myanmar, March 4, 2014 19





# Risk Assessment of Food Additives

Songsak Srianujata, Ph.D.
Senior Advisor
Institute of Nutrition, Mahidol University

04/03/2014

Workshop, Food Safety and Standards, Yangon, Myanmar

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04/03/2014

Workshop, Food Safety and Standards, Yangon, Myanmar



# RISK ANALYSIS PRINCIPLES APPLIED BY THE CODEX COMMITTEE ON FOOD ADDITIVES (From procederal manual of Codex)

The application of risk analysis principles by the Codex Committee on Food Additives (CCFA) and the Joint FAO/WHO Expert Committee on Food Additives (JECFA).

04/03/2014

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### Some principles:

- CCFA shall endorse maximum use levels only for those additives for which
- (i) JECFA has established specifications of identity and purity; and
- (ii) JECFA has completed a risk assessment and established a health-based guidance value.



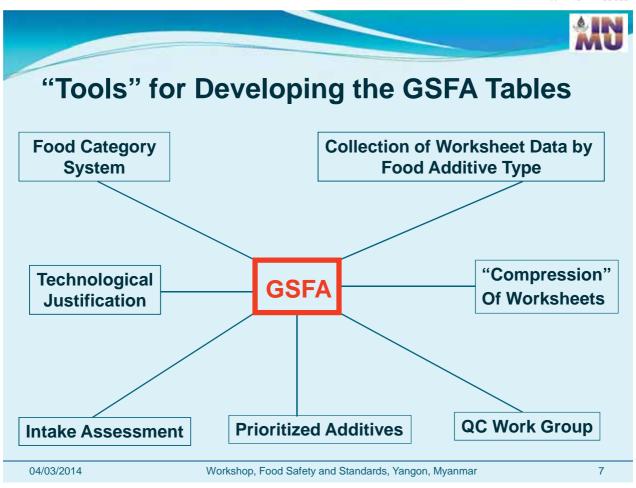
- JECFA is primarily responsible for performing the risk assessments upon which CCFA and ultimately the CAC base their risk management decisions.
- JECFA should strive to provide CCFA with science-based risk assessments that include the four components of risk assessment as defined by CAC and safety assessments that can serve as the basis for CCFA's risk management discussions.

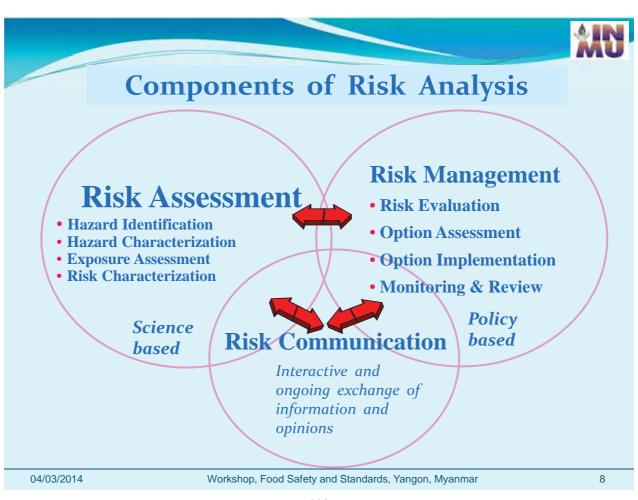
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- JECFA should strive to base its risk assessments on global data, including data from developing countries. These data should include epidemiological surveillance data and exposure studies.
- JECFA is responsible for evaluating exposure to additives.
- When evaluating intake of additives during its risk assessment, JECFA should take into account regional differences in food consumption patterns.







# Codex Alimentarius Commission CODEX PROCESS

#### Relationship of RA and RM



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#### **Risk Analysis Process**

- Risk Assessment
  - \* Hazard Identification
    - \* Toxicity study Acute (LD50)
      - Long term (NOEL)
  - \* Hazard Characterization
    - Quantitative toxicity

NOEL

ADI

**PTWI** 

**\*** Exposure Assessment

Total intake, Total uptake

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#### **Risk Analysis Process**

\* Risk Characterization

 $\mathbf{Risk} = \frac{\mathbf{Intake}}{\mathbf{ADI}}$ 

- Risk Management
- Risk Communication

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## M

#### **Risk Assessment**

- Hazard Identification
- Hazard Characterization
- Exposure Assessment
- Risk Characterization

Science based

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### 1. Hazard Identification

Is there any hazard?
What is (are) the hazard?
In what situation?

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### **Basic Toxicology in Food Safety**

# **Toxicity:** Inherent property of agent can cause adverse effect

**Hazard**: Inherent property of an agent or situation having the potential to cause adverse effects when an organism, system or (sub)population is exposed to that agent.

**Risk:** The probability of an adverse effect in an organism, system or (sub)population caused under specified circumstances by exposure to an agent.



## **Animal studies**

- ♦Animal study information can be two areas
  - Biochemical study and
  - Toxicological study

(Global information, can be done in any internationally certified laboratory)

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## **Toxicological studies**

- \* Acute toxicity
- \* Short-term toxicity
- \* Long-term toxicity
- \* Carinogenicity toxicity
- \* Reproductive & Developmental toxicity
- \* Genotoxicity
- \* Others: neurotoxicity, Eye and skin irritation, skin allergic reactions



## 2. Hazard characterization

#### threshold approach:

Determine the level of hazardthat is acceptable as;

- Acceptable daily Intake (ADI or RfD) for safety in long term intake or exposure สำห(long-term study)
- Acute reference dose (Acute RfD) For safety in short term intake or exopsure (acute)

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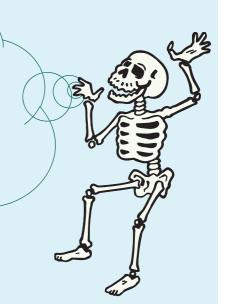
โดย NOAEL = No Observed Adverse Effect
Level from toxicity testing in
animal or in human





NOAEL = No Observed Adverse Effect Level

Highest level that produces no adversed effect



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## **Safety Factor (Uncertainty Factor)**

In general = 100

10 = difference among species (animal and human)

10 = individual variation May be more or less than 100

 Depend on quality and quantity of data



## No threshold level

- Carcinogen
- GenotoxicUse ALARA

(As Low As Reasonably Acchievable)

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#### 3. EXPOSURE ASSESSMENT

### In general condition, exposure may be by

- 1. Inhalation through respiratory system
- 2. Ingestion through gastrointestinal tract
- 3. Penetration through skin

Exposure INTAKE



# Oral exposure (Dietary exposure, Daily dietary intake)

#### Hazardous substances

Food contaminants

Food additives

Pesticide residues

Veterinary drug residues

**Vehicles** 

**Foods** 

**Drinks** 

Water

Soil or dirt

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## Methods for collecting food consumption data

Assessment	Method
Individual	Food diary, weighed intake Duplicate portion studies Dietary recall Food frequency
Population	Food disappearance method - household - national

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# SELECTION OF METHODS FOR FOOD CONSUMPTION DATA

Factor - age

- educational level
- motivation of the target population
- costs and resources available

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#### **DIETARY RECALL**

- Recollect the types and amounts of food consumed
- Usually in the past 24 hours
- Need a trained interviewer
- May be by telephone
- Parents or caretakers response for children < 5 yrs.</li>
- Problems with diets that are more varied
- Best for large scale studies



#### FOOD FREQUENCY

- Usually pattern of consumption for individual types of food
- List of commonly consumed foods
- Indicating number of times per day, week, month
- Not require a high education of respondent
- Useful for retrospective data in epidemiological studies
- Information of specific food types

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#### NATION FOOD DISAPPEARANCE METHOD

Insufficient resources for food consumption survey Estimated from food balance sheets

National food balance

- = food production +food imported
  - +food taken from stocks
  - food added to stocks
  - food exported
  - food used for seed
  - food used for non-edible purpose
  - -food loss from harvest to kitchen
  - -animal feed

Divided by the number of people in the country



### 4. Risk Characterization

### Intake or exposure

= (concentration of additive used) X (food Intake)

Comparison between exposure and reference dose (ADI, RfD)

 $Risk = \frac{Exposure (Intake)}{ADI \text{ or RfD}}$ 

Safe = High Risk when Risk > 1 Low Risk when Risk < 1

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## **Decision on the ADI Assignment**

- Threshold level is available an "ADI" is assigned
- 2. Low level of risk or no health concern "ADI not specified" is assigned
- No threshold is available recommend the additive should not be used





# **Example of result of risk assessment of Food Additives**

- 1. With "ADI not specified"
- 2. With assigned "ADI" Thailand assessment



## **JECFA** and Glutamate

- Evaluation begun in 1969
- Specification and ADI established in 1970
- Further review in 1973 and 1987
- Toxicological and specifications monographs published in periodic JECFA publications updates
- ADI applies to added glutamates, since many foods naturally contain glutamate

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### **JECFA Glutamate Recommendations**

Safety- "ADI not specified", meaning use at good manufacturing practice levels in various foods

as with all additives, ADI applies to all foods except foods for infants of under 12 weeks of age

Specification and Methods of Analysis



## **JECFA Toxicological Monograph**

- Sets ADI- Not specified
- ADI a group ADI for L-glutamic acid and its ammonium, calcium, monosodium and potassium salts
- Monograph discussion includes information on and finds scientifically unfounded putative glutamate risks of possible neurotoxicity and idiosyncratic intolerance

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## **US FDA and EC and glutamate**

- US FDA- glutamates accepted at GMP level and classified as Generally Recognized as Safe (GRAS)
- EC/EU- Scientific Committee for Food And EC rules classify glutamates as "ADI Not Specified"



## ADI and Specification of food additives-sweetener

ADI of sweeteners								
Sweeteners	ADI (mg/ kg bw/day)							
Food sweeteners not included	in notification No. 281							
1. Aspartame	0 – 40							
2. Acesulfame K	0 – 15							
3. Sucralose	0 – 15							
4. Saccharin	0 – 5							

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## Provisions of food color and sweeter uses

## **Examples**

Food	Food		N	/laximu	um Us	e Leve	I (ML)	of All	ura rec	l (mg	/kg)		0
Cat.	category Codex	Codex		Thai					ASEA	'N		Comm ent	
	(FFQ**)	ML	Note	TML	FDA	EU	ANZ	EU ANZ	INA	MAS	PHI	SIN	VIE
01.6.4.2	Ed cheese	200 step		1067		100	290	GM P	NP*	NP *	GMP	NP*	GMP
09.3.3	Fish egg Semipro cessed	500 step		1067	1000	300	290	GM P	NP*	500	NP*	NP*	GMP
14.1.4.1	Carbon ated drinks	100 step		125	30	50	290	GM P	GMP	NP *	GMP	NP*	100



## **Exposure assessment of sweeteners**

## Example: sweeteners

	ML	% of ADI							
Additive type	(mg/kg)	3-5.9 yr	6-18.9 yr	19-64.9 yr	>65 yr	>3 yr			
A considerate M	Codex (adopt)	0	0	0	0	0			
Acesulfame K ADI=0-15 mg/kg	Codex(all steps)	102	57	23	13	44			
bw/day	First Consideration	102	57	23	13	44			
	Codex (adopt)	1	1	0	0	0			
Aspartame ADI=0-40 mg/kg	Codex(all steps)	94	53	28	14	43			
bw/day	First Consideration	94	53	28	14	43			

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		% of ADI							
Additive type	ML (mg/kg)	3-5.9 yr	6-18.9 yr	19-64.9 yr	>65 yr	>3 yr			
	Codex (adopt)	0	0	0	0	0			
Saccharin ADI=0-5 mg/kg	Codex(all steps)	229	139	63	36	101			
bw/day	First Consideration	227	137	61	36	99			
	Codex (adopt)	1	1	0	0	1			
Sucralose ADI=0-15 mg/kg	Codex(all steps)	80	47	19	12	36			
bw/day	First Consideration	80	47	19	12	36			



### Calculation of Maximum Use level (Final consideration)

MLs of food sweeteners were modified as final consideration of those that were above ADI (> 100% of ADI). The MLs of sweeteners in those food that consumed high as the result it has high % contribution of intake compared to ADI. The % contribution should be less than 70% of ADI.

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# Thank You for your attention ขอบคุณครบ

04/03/2014

# Food Safety Administration in Japan ~Import & Export Control for Food Safety~

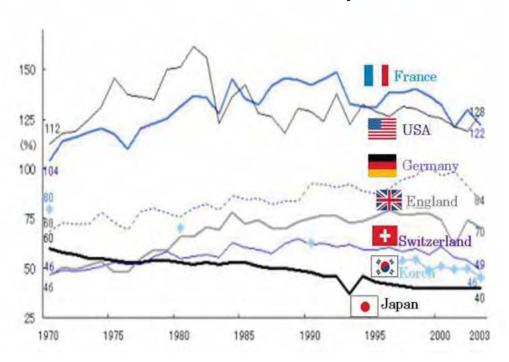


Keiko Yamamoto, M.D., MPH
Deputy Director
Planning and Information Division, Department of Food
Safety, Pharmaceutical and Food Safety Bureau,
Ministry of Health, Labour and Welfare

## **Today's Topics**

- Organization Structure
- Related Laws
- National and Local Governments
- Setting of Standards
- Import Check
- Export from Japan
- Audit

# food self-sufficiency rate



# Recent developments in Japan's food safety administration

<Administrative response>

	<main etc.="" events,=""></main>			•
			May 1996	Partial revision of the Food Sanitation Act (introduction of HACCP, etc.)b
March 1996	Following outbreak of BSE in the UK, imports of British beef and processed beef foods were prohibited.		October 2001	Total ban on bone-and-meat feed (MAFF)
May 1996	Major outbreak of food poisoning caused by O-157.		June 2002	Start of 100% inspection of beef cattle     Enactment of the BSE Special     Countermeasures Law
June 2000	Snow Brand Milk Products Co. food poisoning case		August 2002	Partial revision of the Food Sanitation Act (creation of system for blanket
June 2001	Confirmation of the first BSE infected cow in Japan		.7	prohibition of imports and sales)
February	Detection of residual agricultural		May 2003	Enactment of the Food Safety Basic Law
2002	chemicals exceeding standard in Chinese frozen spinach		May 2003	Partial revision of the Food Sanitation Act (introduction of positive list for
December 2003	Confirmation of first BSE infected cow in the US, and prohibition of US imports		2	residual farm chemicals, etc., introduction of system for renewing
June 2007	The Meat Hope Co. false labeling incident			general sanitation management process approval facilities, implementation of monitoring and
December 2007	Food poisoning caused by Chinese			guidance plans, etc.)
	frozen gyoza		July 2003	Launch of the Food Safety Commission
September 2008	Tainted rice distribution incident		september 2009	Launch of the Consumer Agency
March 2011	TEPCO Fukushima Daiichi Nuclear Power Station accident	***********	March 2011	Response to radioactive material in food
April 2011	Food poisoning from raw meat		October 2011	Standards set for meat for raw consumption

#### Role sharing of Food Safety (Risk Analysis)

#### **Risk Analysis**

O Risk analysis is the process of preventing accidents and minimizing risk as much as possible, for protecting the health of the people, when there may be exposure to certain hazards, and not for clearing up the aftermath.

#### Risk Assessment

#### Food Safety Commission

 Implementation of risk assessment
 Assess the probability and extent of adverse impacts of hazardous substances in food.

Food Safety Basic Law

#### MHLW

- Sets criteria for inclusion in foods.
- Watches over conformity to the criteria.

Food Sanitation Act,

#### Risk Management

#### **MAFF**

- Sets criteria for use agricultural chemicals and levels in feed and fertilizer.
- Control on veterinary drugs, etc.

Agricultural Chemicals Regulation Act Act on Safety Assurance and Quality Improvement of Feeds, etc.

#### Consumer Agency

- Sets criteria on food labeling.
- Watches over conformity to the criteria.

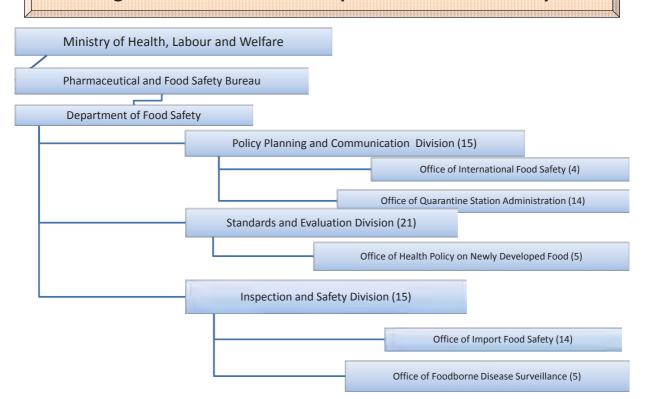
Food Sanitation Act Health Promotion Law JAS Law, etc.

#### **Risk Communication**

- Disclosure of food safety related information
- · Opportunities for the consumers to express their views

General coordination by the Consumer Agency

#### **Organization Structure of Department of Food Safety**



(Number of the officials) As of Nov. 2013

#### **Relevant Laws on Food Hygiene**

- ◆ Food Safety Basic Act
- ◆ Food Sanitation Act
- Ministerial Ordinance on Milk and Milk products Concerning Compositional Standards, etc.
- Abattoir Law
- Poultry Slaughtering Business Control and Poultry Inspection
   Law
- Law on special Measures Against Bovine Spongiform
   Encephalopathy

#### **Food Sanitation Act (measures)**

#### **■Standards■**

Criteria and Standards of food, food additive, apparatus, container and packaging (Article 11, 18)



#### ■Monitoring and guidance■

- ◆ Guideline of monitoring and guidance and plan of those(Article 22, 23, 24)
- ◆ Inspection order (Article 26)
- ◆ removal for testing (Article28)

#### Responsibility of National and Local Governments

National Government

Coordinate closely with each other so that measures concerning food sanitation shall be implemented comprehensively and immediately



#### **Responsibility of National Government**

(Article 2) \*

- **◆**Disseminate the correct knowledge
- **♦**Collection, compilation, analysis and provision of information
- **♦**Promote research
- **♦**Enhance inspection capabilities
- ◆ Foster the human resources and enhance their capabilities
- ◆ Develop a system for conducting collection of information, carrying out research, and making inspections on imported foods, etc.
- **◆Ensure international coalition**
- ◆Technical assistance for local governments

#### **Responsibility of Local Governments**

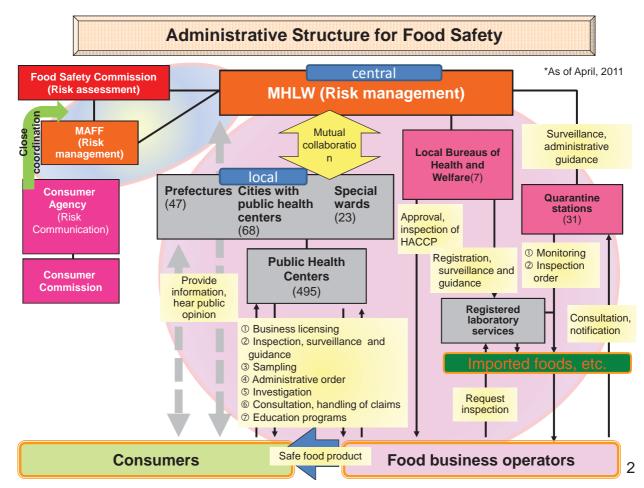
(Article 2)

- **◆**Disseminate the correct knowledge
- **♦**Collection, compilation, analysis and provision of information
- **♦**Promote research
- **◆**Enhance inspection capabilities
- ♦ Foster the human resources and enhance their capabilities



- ◆Approval of the business(Article 52) \*
- ◆Slaughter inspection [based on other laws] (cattle, horses, swine, sheep, goats and poultry)

**%Food Sanitation Act** 



# Overall picture of regulations and control under the Food Sanitation Act

- Setting restrictions and standards for food/additives, apparatus, containers and packaging, etc.
- Monitoring and guidance
- Administrative penalties on violations

#### Administrative penalties on violations

An administrative penalty will be imposed on a violation of a law

- disposal order
- cancellation of the business license and prohibition/suspension of business, etc.
- > fine

#### Guidelines and plans for monitoring and guidance

(in the context of Articles 22 to 24)

Guidelines for monitoring and guidance on food sanitation

Monitoring and Guidance plan
For imported food

Local government plan for monitoring of and guidance on food sanitation

Formulation, Modification $\rightarrow$  Gather opinions of the public and residents The progress of the implementation of the plan  $\rightarrow$  Publicizing

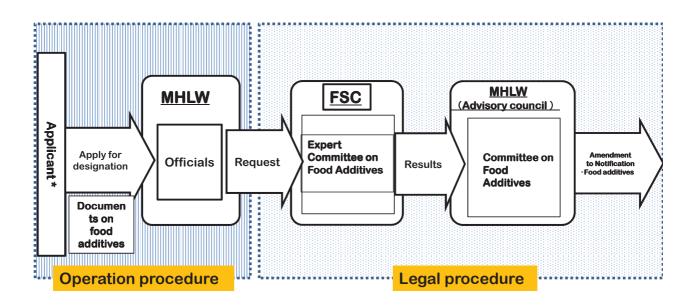
Monitoring and guidance are planned on a yearly basis at both national and prefectural government levels and are implemented in accordance with the plans.

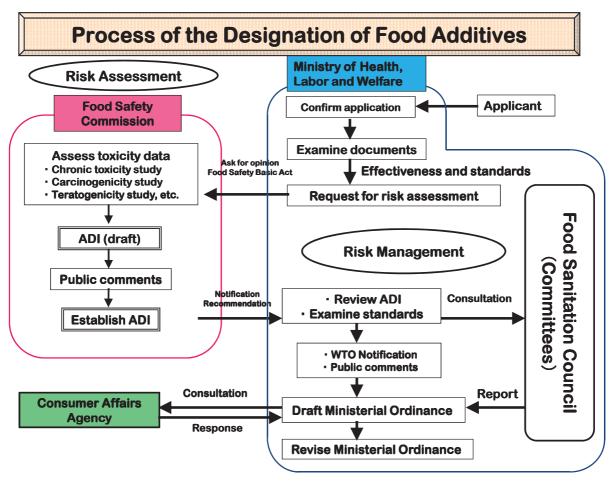
# Guidelines for monitoring of and guidance on food sanitation

(Article 22)

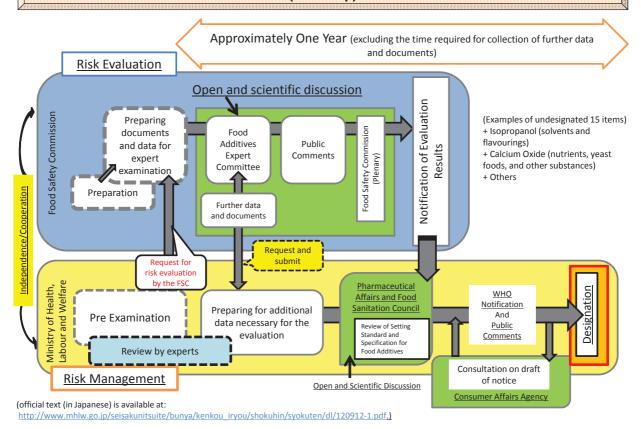
- Basic directions
- Monitoring and guidance items to be particularly focused on
- Basic monitoring and guidance items
- Important issues concerning the implementation of monitoring and guidance

#### **Procedure for the Designation of Food Additives**



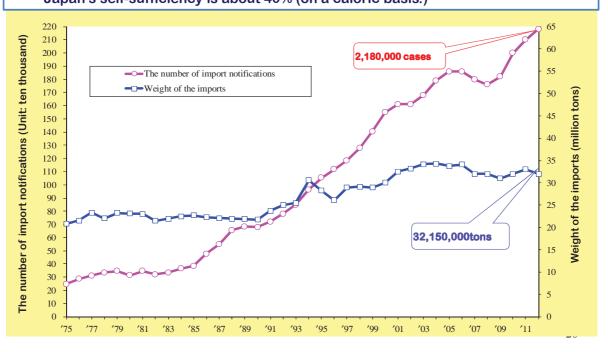


## Designation Process for internationally commonly used food additives (Road Map)

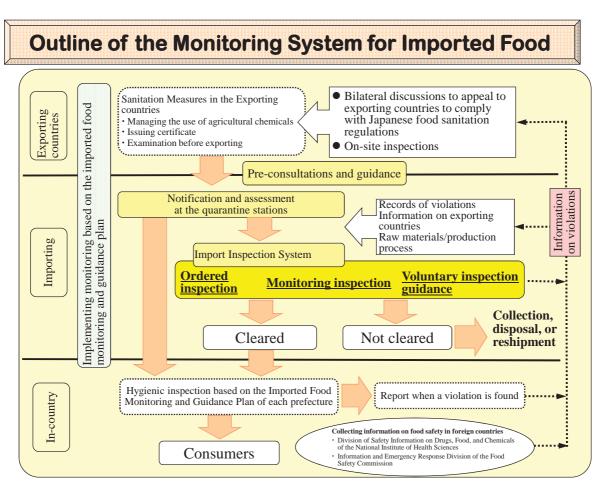


#### **Current status of food import**

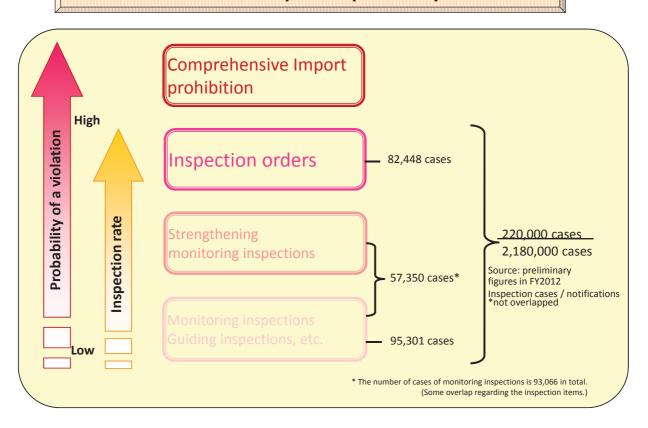
- The number of notifications of food imports is on the rise. The latest data shows approximately two million items notified.
- Imported food accounts for about 60% of food in Japan.
   \*Japan's self-sufficiency is about 40% (on a caloric basis.)

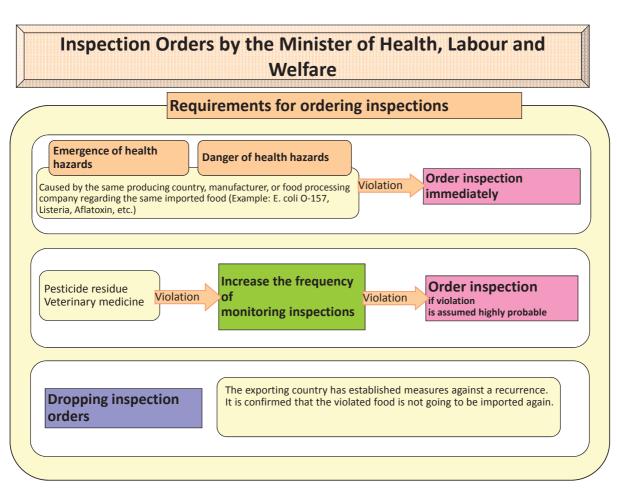


#### **Places to Submit Import Notifications of Foods** and Related Products Otaru 32 quarantine stations to submit import Chitose notifications of food and related products Airport 6 quarantine stations with inspection divisions Imported food inspection center 13 quarantine stations providing consultations on importing food and related products 399 food sanitation monitors Sendai Niigata Sendai Airport \* As of FY 2013 Komatsu Air Port Tokyo (Food monitoring division) Kobe (Food monitoring Tokyo (Second food monitoring division) Fukuoka division) Kobe (second food monitoring Moji Chiba division) Imported food inspe Shimonoseki Tokyo Airport Hiroshima Fukuoka Airport Kawasaki Narita Airport Nagasaki Hiroshima Airport Kagoshima Yokohama Imported food inspection center Chubu Airport Yokkaichi Kansai Airport Shimizu Naha Airport Nagoya

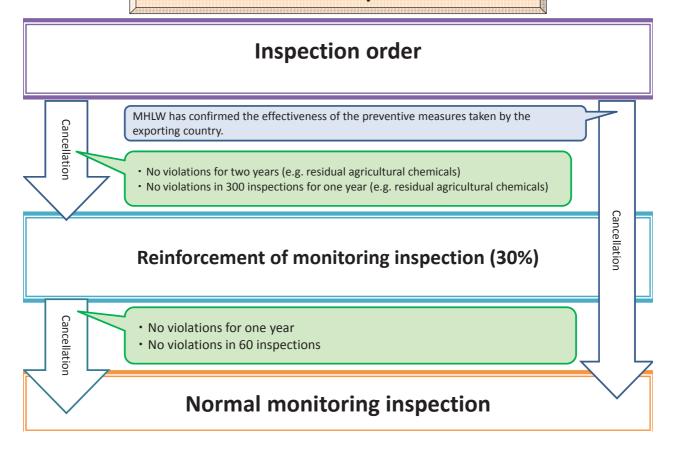


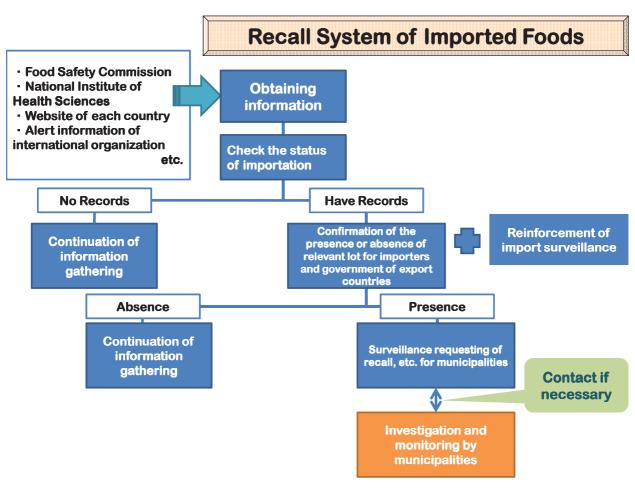
#### **Outline of the Import Inspection System**



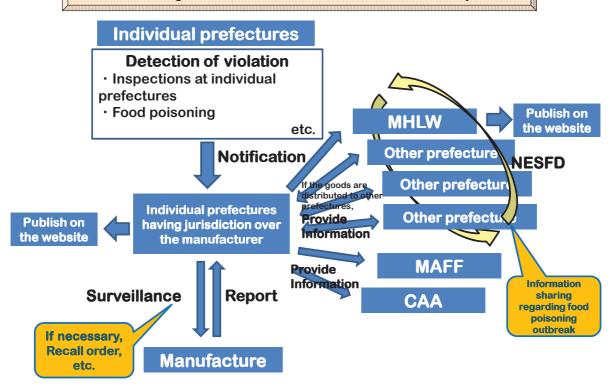


#### **Cancellation Requirements**

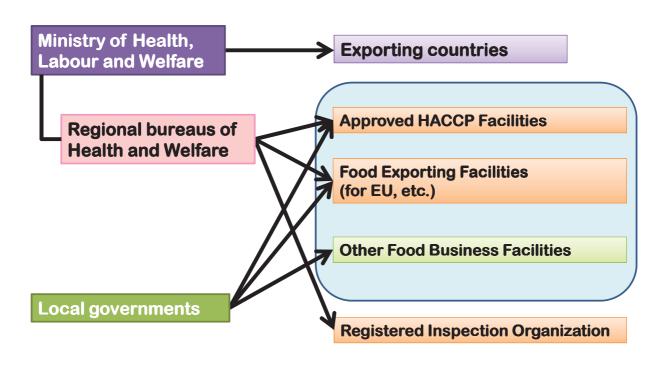




#### Recall system of violated foods in Japan



#### **Audit related to Food Safety**



#### **Overview of food safety administration (summary)**

Assuring safety of food, taken in by all the people of Japan in their everyday life, thereby protecting their health

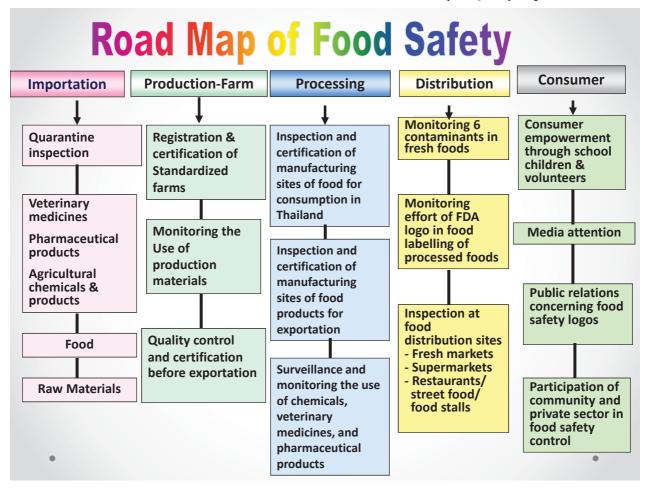
- ◆ Response based on the latest scientific findings
  - →Risk analysis (Risk assessment, risk management, risk communication)
- ♦ <u>Initiatives based on mutual collaboration among diverse</u>
  <u>stakeholders, including the national government, municipalities,</u>
  food-related business operators and consumers.
  - →Easy-to-understand communication, interactive opinion exchange
- ◆ Sanitation control based on laws (e.g., the Food Sanitation Act)
- ightarrowScientific references, planned monitoring and guidance (PDCA), recall instructions, etc.

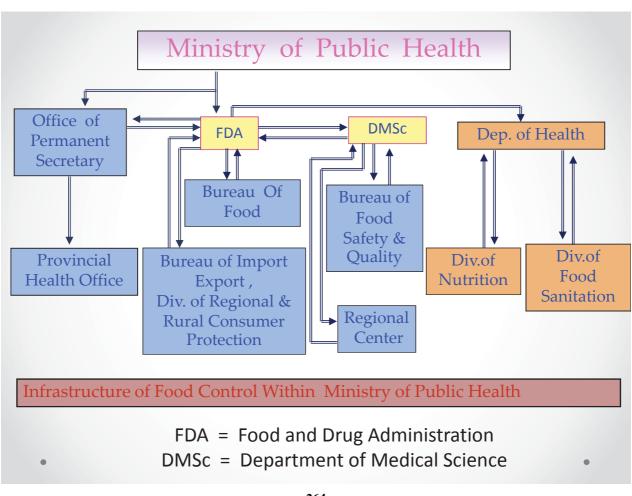
# THANK YOU FOR YOUR ATTENTION



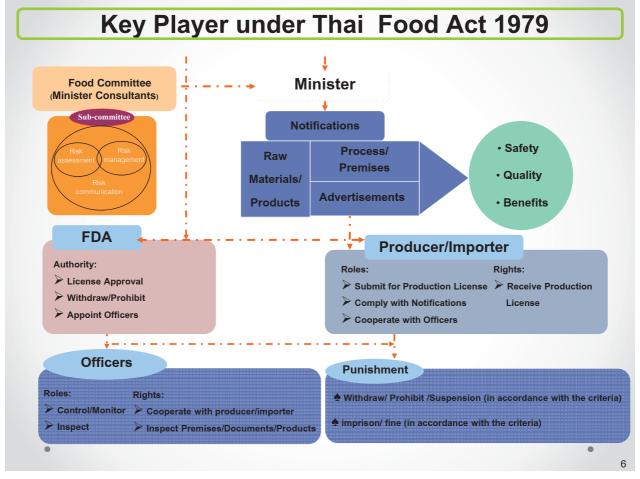


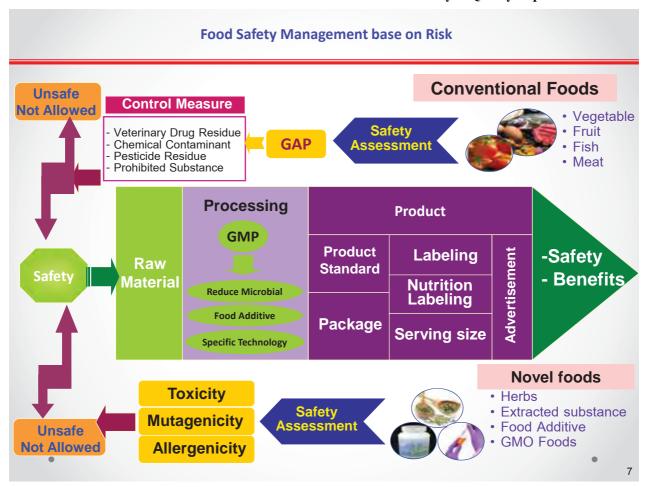
# Food Control System in Thailand

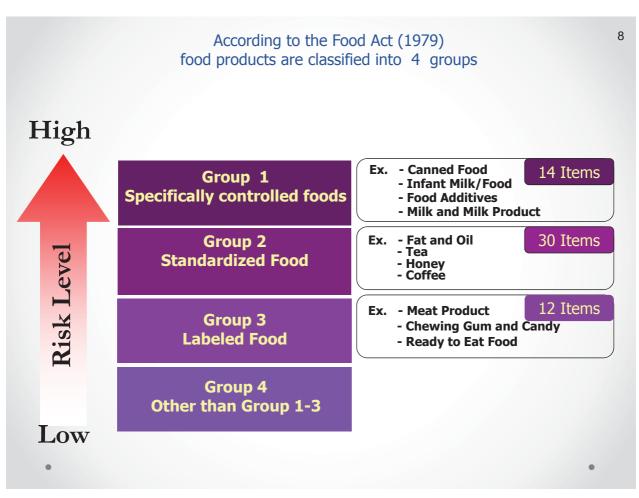


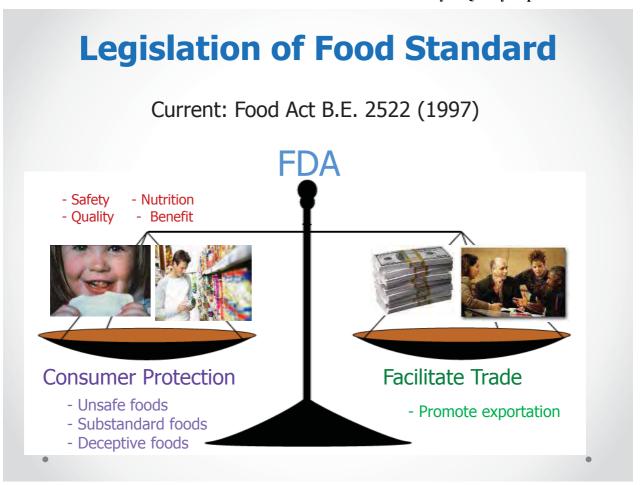


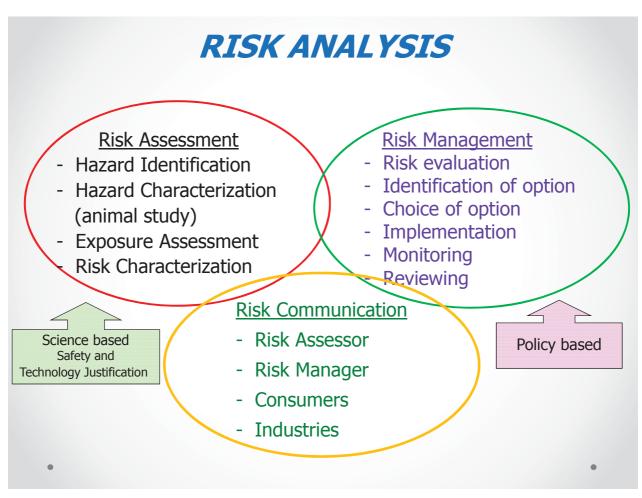


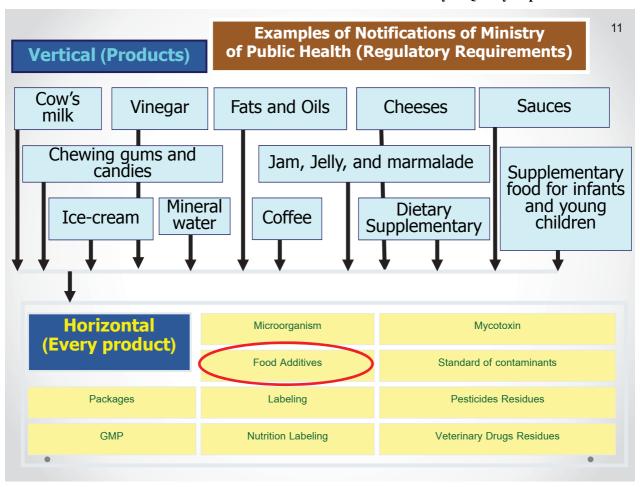








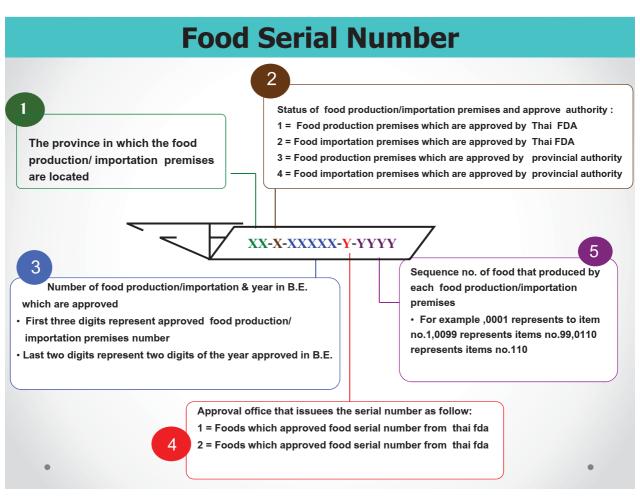






# Food Categories and How to Apply for Product Approval

Categories	Domestic/Imported Food
A. Specific Controlled Food	<ol> <li>Apply for Manufacturing/Importation License</li> <li>Register for Approval Number</li> </ol>
B. Standardized Food	<ol> <li>Apply for Manufacturing/Importation License</li> <li>Notify for Approval Number*</li> </ol>
C. Labeled Food 1. Notify standard labeled food	1.1. Apply for anufacturing/Importation License 1.2. Notify for Approval Number*
2. Non-notify standard labeled food	2.1 Apply for Manufacturing/Importation License 2.2







Pre-packaged Processed Foods



#### **Household and Community Production**

**Vision**: Systematically develop and strengthen Pre-packaged Processed Foods, marketing, logistic and supply chain, including management system in order to create a positive image and value added products.

Objective: To develop both domestic and foreign trade of Pre-packaged Processed Foods, <u>leading to market-driven</u> mechanism with the cooperation from all sectors, both public and private.

•



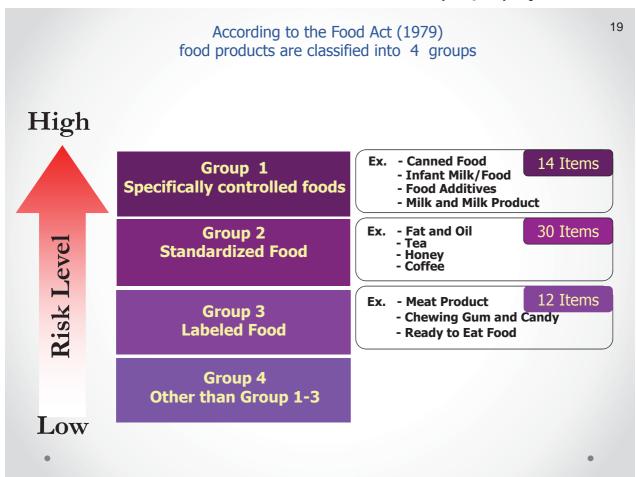
# Primary Good Manufacturing Practice (Primary GMP)

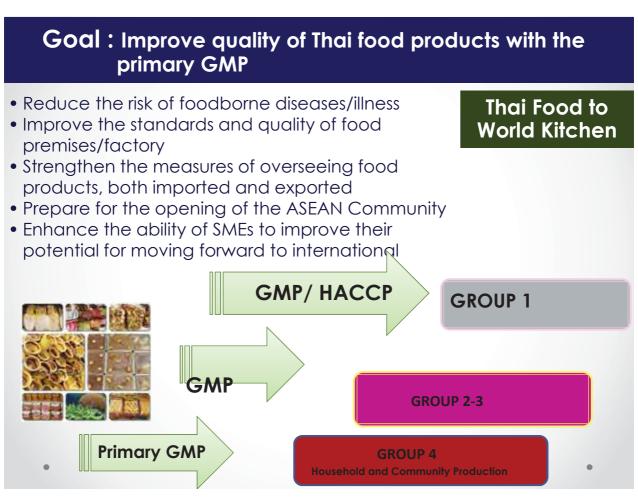


Goal

To serve as a tool for improve the standards and quality of local / SMEs products, moving forward to AEC 2015 and becoming as a "Kitchen of the World"

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## **Specific Controlled Food(group1)**

- **Beverage in Sealed Container**
- **Infant Formula and Follow-on Formula**
- Infant Food and Follow-on Food for Infant and Children
- **Supplementary Food for Infant and Children**
- Flavored Milk
- **Cultured Milk**
- Cow's Milk
- **Other Milk Products**
- Ice cream
- Food Additives
- Food for Weight Control
- Food in Sealed Containers

Horizontal standard (food additive ,pesticide residue,labeling ...) Vertical standard in each prouct **REGISTER FOR APPROVAL** 

#### Prescribed Food to have Quality or Standard(**Group2**)

- Coffee
- Fat and Oil
- **Coconut Oil**
- Cheese
- Semi Processed Food
- Soybean Milk in Sealed Container
- Jam, Jelly, and Marmalade in Sealed Container
- Royal Jelly and Royal Jelly Product
- Seasoning Products from hydrolysis or fermentation of Soybean **Protein**
- Chocolate
- Honey
- Fish Sauce
- Particular Sauces
- Ice
- Salt
- Dietary Supplement Product

- Tea
- Peanut Oil
- Palm Oil
- Butter Oil
- Butter

Vinegar

- Ghee
- Margarine
- Fortified Rice
- Mineral Water
- Quicklime Soaked Egg
- Electrolyte Drink
- Drinking Water
- Herbal Tea

Horizontal standard (food additive pesticideresidue, labeling ...) Vertical standard in each prouct



**NOTIFY FOR APPROVAL NUMBER** 

#### Prescribed Food to have Label (group3)

- Bread
- Processed Agar and Jelly Dessert
- Sauce in Sealed Containers
- Chewing Gum and Candy
- Brine for Cooking
- Brown Rice Flour
- Ready to Cook and Ready to Eat
- Meat Product
- Irradiated Food
- Flavoring agent
- Food for Special Purpose

Horizontal standard (food additive ,pesticide residue,labeling ...)

**NOTIFY FOR APPROVAL NUMBER** 

"Pre-packaged Processed Foods" are defined as foods that have passed through processing procedures such as trimming, roasting, drying, fermenting, or foods that have passed through processing procedures resulting in characteristic changes or foods which have passed through manufacturing processes and been packed into pre-packaged containers for sale to the consumer excluding specific controlled foods, standardized foods, and foods that require specific labeling as enforced by the Ministry of Public Health (MOPH) "Production Processes, Production Fauinment, and Food Storage"



Manufacturers of food products as stipulated in Clause 2 shall comply with (GMP)manufacturing procedures, production and appliance, and food storage of processed foods, and prepackaged processed food products



Importers of food products as stipulated in Clause 2 shall provide certificates of guarantee of standards for (GMP) manufacturing procedures, production equipment and appliance, and foodstorage of processed food products

## **Good Manufacturing Practice(GMP)**



- 1. Location and manufacturing building
- 2. Tools, machinery, and manufacturing equipment
- 3. Control of manufacturing process
- 4. Sanitation
- 5. Maintenance and cleaning
- 6. Personal and hygiene of workers

# Location and manufacturing building



#### Location

- surroundings must not be accumulation unused thing ,a place for breeding animals
- away from area that has unusually high level dust

#### Manufacturing building

- <u>- suitable size</u>
- easy for maintenance and cleaning
- measures to prevent animals and insects
- -- enough space for install tools and equipment

## Tools, machinery, and manufacturing equipment



- made from materials which do not react with the food
- the tables must made from materials that are free from rust and cleaned easily
- design and installation must be appropriate ,cleaned easily ,and thoroughly
- sufficient quantity

# **Control of manufacturing process**



- raw materials and ingredients
- the food containers must be in proper condition
- water used in food process must be of the qualityand standard under notification of ministry of public health
- must prepare documents and records

# Sanitation

- the water used must be clean
- lavatory and hand-washing sink must be in good hygienic, away from manufacturing area, sufficient number
- measures to prevent and dispose of animals and insects
- provided effective and suitable drainage way to release water

# Maintenance and cleaning

- manufacturing building ,tool ,machinery , and equipment must be cleaned
- regular checked and maintained
- the chemical used for cleaning must be safe and proportionately ,separate ,safety stored

## Personal and hygiene of workers



- wear clean and suitable clothes ,hat ,hair netting
- wash their hand
- training for workers

# Mandatory for food hygiene



- Production area
- Personal hygiene
- Tool, machinery, and manufacturing equipment

## **Food producer Education**

Objective: To promote, supervise and develop the food products quality though improvement of production practices

Working area: All over the country according to the problem







# **Learning Centre**

# Provincial Public Health



Collaboration between academia and regulators



Educational Institute / Academia



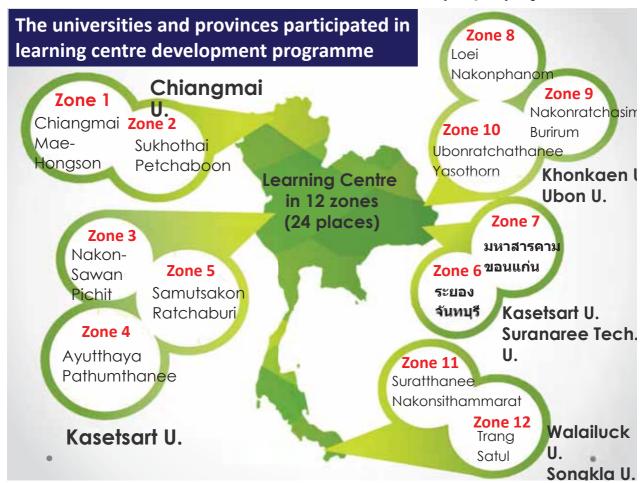
Thai FDA

#### Output

- Knowledge
- Budget
- Public relations

- New products (1 product/centre)
- Learning Centre with basic equipment and tools needed
- Standard Operating Procedure (SOP)

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# **Technical Support**

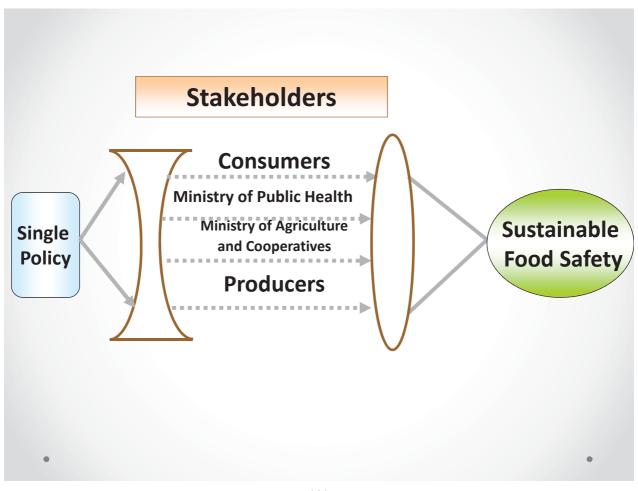
*In put:* Master plan, Budget support, Online data base system, Training and Technical support

Out put: Food safety situation of the country.

Working area: 26 center (in 5 regions of Thailand)







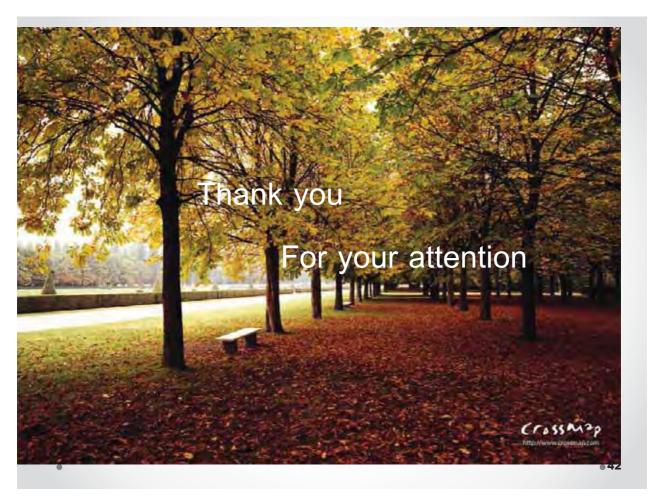
# "Lessons learned"

- 1. Participation of all related sectors in food safety control.
- 2. Working as an integrated system towards the same goal of the single governmental policy.
- 3. Strengthening of capacity building
- 4. Technical development (e.g. labs)
- 5. Consumer empowerment

6. Media influence

'Food Safety'

Consumer Health Protection and Health Promotion



# RISK COMMUNICATION STRATEGY FOR FOOD SAFETY IN INDONESIA

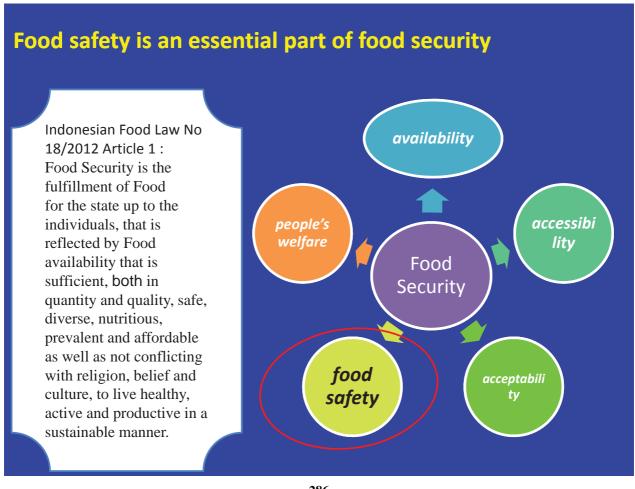


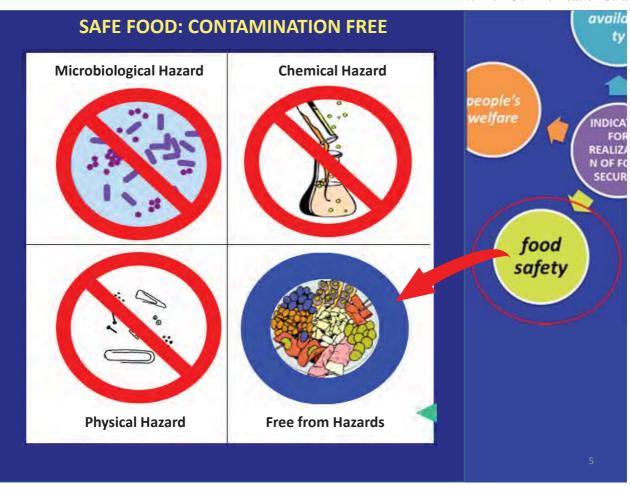
Halim Nababan National Agency for Drug and Food Control Republic of Indonesia

# Presented on: Workshop and Roundtable Discussion on Food Safety and Standards Yangoon, Myanmar, 4-5 March 2014

# PRESENTATION AGENDA Introduction Risk Analysis and Communication Examples of Food Safety Issues Conclusions







# INDONESIAN FOOD LAW NO 18/2012, Article 68:

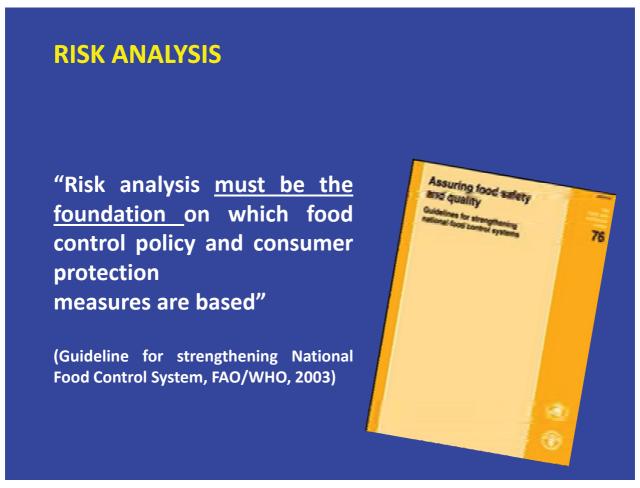


- (1) Government and Regional Government guarantee implementation of Food Safety on every <u>Food chain in an integrated manner</u>.
- (2) Government set the norm, standards, procedures, and criteria for food safety.

## **Explanation of the law:**

(2) The setting of norms, standards, procedures, and criteria of food safety among others, the <u>risk based analysis</u>. The risk analysis is a decision-making prosess is done in a systematic and transparant based on scientific information covering risk management, risk assessment, and <u>riscommunitaion</u>

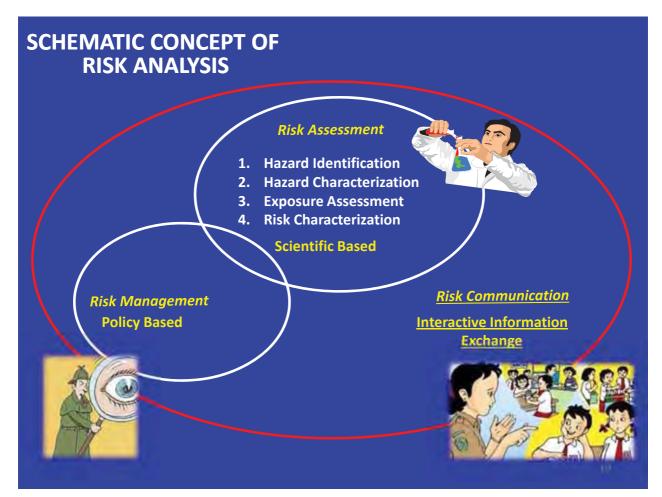


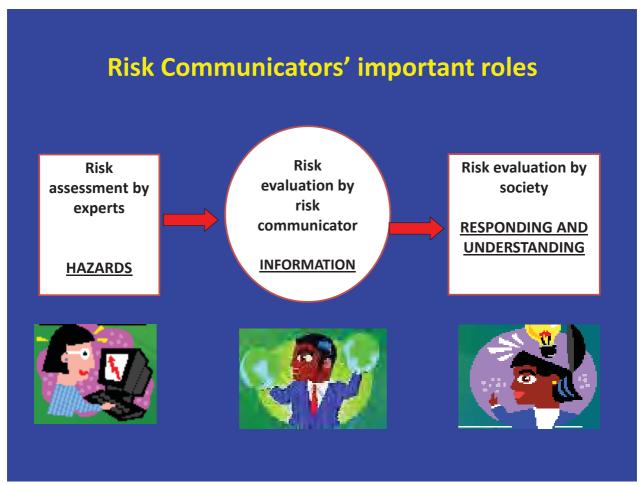


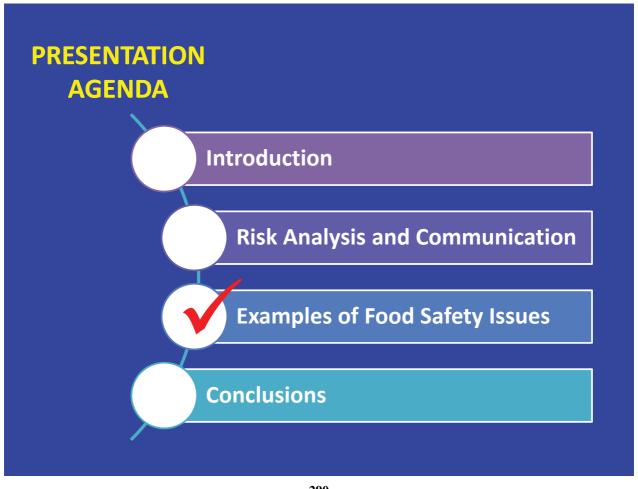
# **RISK ANALYSIS**

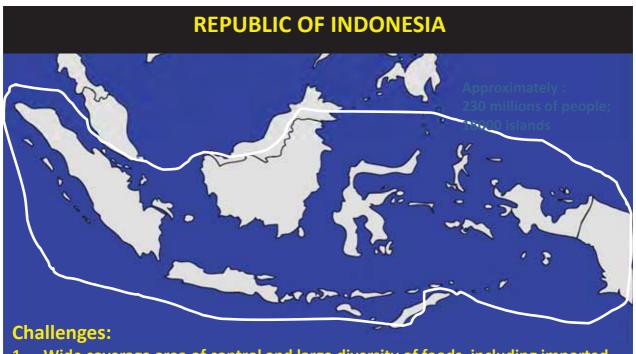
The CAC defines risk analysis as a process composed of three components:

- Risk assessment a scientifically based process consisting of the following steps: (i) hazard identification; (ii) hazard characterization; (iii) exposure assessment; and (iv) risk characterization.
- Risk management the process, distinct from risk assessment, of
  weighing policy alternatives, in consultation with all interested parties,
  considering risk assessment and other factors relevant for the health
  protection of consumers and for the promotion of fair trade practices,
  and, if needed selecting appropriate prevention and control options.
- <u>Risk communication</u> <u>the interactive exchange of information and opinions throughout the risk analysis process</u> concerning hazards and risks, risk related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions.









- Wide coverage area of control and large diversity of foods, including imported products
- 2. The need improving knowledge and skill to produce high quality and safe foods (SMEs in particular)
- 3. The need to increase the number of competent food inspectors
- 4. A large number of consumer with Low Level of Awareness in Food Safety 13



ILLEGAL FOODS

### Issues:

Raw materials contained contaminants caused food rejection in exporting countries.

### Examples:

- Ketchup containing sulphite carried from brown sugars
- Aflatoxin in peanut butter
- Rhodamine B in fried rice seasoning and bottled sauces
- Cyanide in snack





- Coffee containing drugs chemicals
- Sibutramine in candies



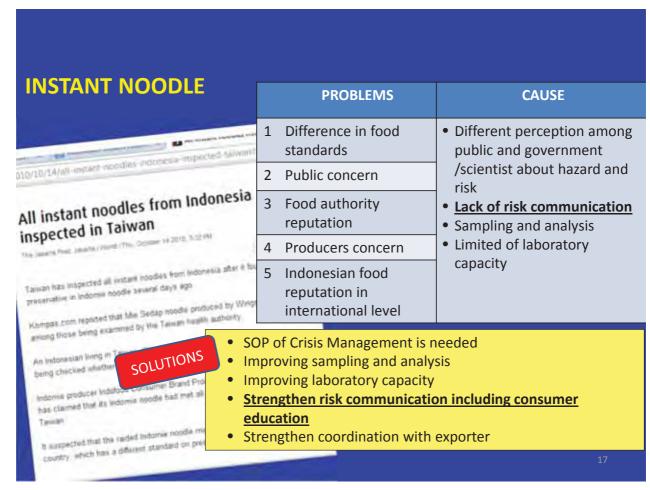
Brown sugar containing formaline and sulphyte

# **ILLEGAL FOODS**

	PROBLEMS	CAUSED
1	Complaint from domestic producers	<ul><li>Different perception among stakeholders</li><li>Missed communication and less</li></ul>
2	Public concern	coordination with stakeholders
3	Complaint from several ministries	<ul> <li><u>Lacking partnership</u> with law authorities</li> <li>Weak Sanction</li> </ul>
4	Competitiveness of domestic products decline	

Solutions

- Improving coordination and communication with stakeholders
- Improving partnership through Task Force for Combating Illegal Drug and Food



# **PACKAGED DRINKING WATER**

	PROBLEM	CAUSE
1	Consumer association findings (YLKI)	• <u>Lack of communication</u> with consumer association
2	Public concern	<ul> <li><u>Lack of risk communication</u></li> <li><u>Weak coordination</u> among stakeholder on producers education and food control</li> </ul>
3	Producers concern	
4	NADFC reputation	

SOLUTIONS

- All findings were followed up
- Strengthen coordination among related stakeholders
- Capacity building for food inspector.
- Evaluation of Code of practice for food control

# FOOD CONSUMED BY SCHOOL CHILDREN (FCSC)



- School children are highly exposed to FCSC.
  - 48% respondents : often buy (4 times /week)
  - 51% respondents : rarely buy (1 times/week)
  - 1 % respondents : never buy (N=108,000 respondents, The National Monitoring and Verification of Foods Consumed by School Children, 2008)
- FCSC plays important roles as <u>one of important</u> <u>nutrient sources</u> for school children, e.g. they contribute to 36% of energy requirement for school children

However, FCSC possess risks due to: (1) nutrient imbalance; (2) the potential usage of illegal chemicals and excessive additives; (3) chemical and microbial contamination, as well as (4) unhygienic practices in the preparation and production of the foods

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# THE NATIONAL MOVEMENT OF FOOD SOLD AND CONSUMED BY SCHOOL CHILDREN(FCSC)

- Unsafe FSCS may lead to acute or chronic adverse health effects to the students.
- There were many ministries involve in controlling the safety of FSCS
- <u>Commitment of competent authorities are necessary</u> to improve the safety of FSCS is necessary

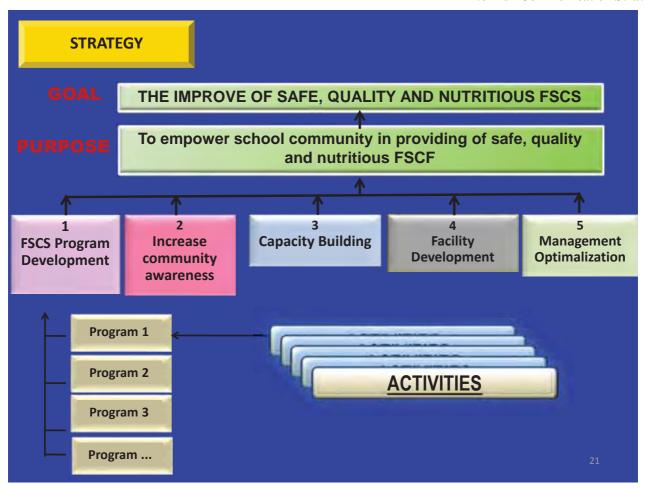


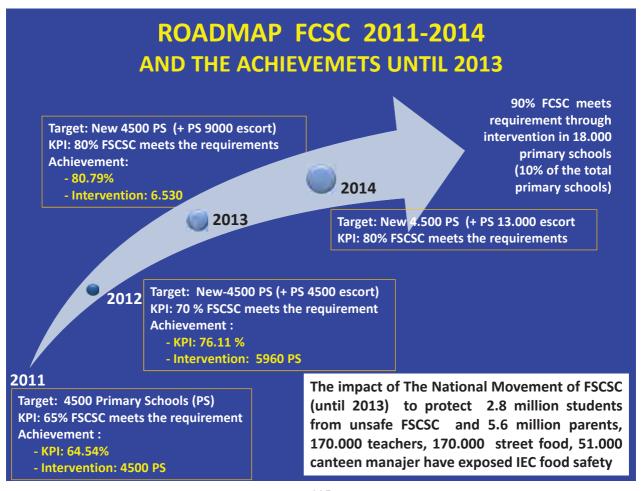


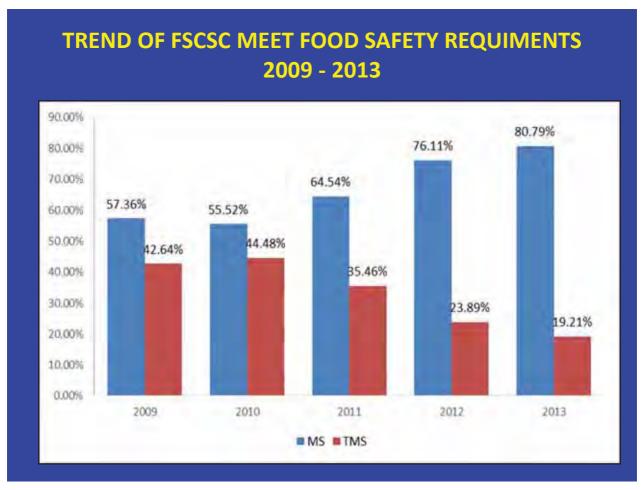
It is necessary to <u>initiate a clear and systematic plan</u> of action where related authorities contribute comprehensively and integrated on improving the safety, quality and nutrition of FSCS



**National Movement of FSCS** 











# **E-NOTIFICATION**

What is e-notification?

An information system between school community and klubpompi to facilitate quick information sharing on positive and negative aspects related to the safety of food sold and consumed by schoolchildren

It is placed under link klubpompi.pom.go.id





# **FUTURE WORKS**

To achieve better understanding of food safety for the society, in the near future, other risk communication strategies will be launched (starting 2014):

- 1. Food Safety in Villages
- 2. Indonesia Food Safety Month
- 3. National Education for Food Safety



# **CONCLUSIONS**

- Risk communication is very important part of risk analysis.
- Lack of communication <u>often becomes the source</u> of food safety problem
- Risk communication <u>plays important roles</u> when making solutions for food safety problems
- Risk <u>must be communicated</u> for related stakeholders, including consumers in such a way to achieve proper understanding of risk
- <u>Consumers education</u> as one of food safety intervention strategy to prevent food safety problems



thank you

# Perspective of Food Labelling Systems in Japan

Mineo ANDO

Food Labelling Division, Consumer Affairs Agency, Government of Japan

# **Topics**

- About Consumer Affairs Agency
- Perspective of Food labelling
  - Current acts concerning food labelling
  - A newly promulgated act: the Food Labelling
     Act of 2013
  - Introduction of mandatory nutrition labelling
- Labelling System for Genetically Modified Foods in Japan

# **Topics**

- About Consumer Affairs Agency
- Perspective of Food labelling
  - -Current acts concerning food labelling
  - A newly promulgated act: the Food Labelling
     Act of 2013
  - Introduction of mandatory nutrition labelling
- Labelling System for Genetically Modified Foods in Japan

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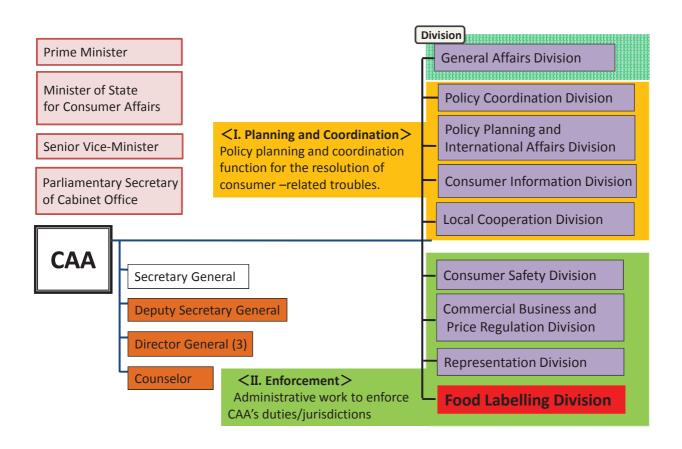


# Consumer Affairs Agency (CAA)

- An external organ of the Cabinet Office
- Established on September 1, 2009

# Our mission

- To protect and promote consumer's interest and benefit
- To ensure the voluntary and rational choice of goods and services
- To ensure fair labelling of the goods closely related with consumers' life



# **Topics**

- About Consumer Affairs Agency
- Perspective of Food labelling
  - -Current acts concerning food labelling
  - A newly promulgated act: the Food Labelling
     Act of 2013
  - Introduction of mandatory nutrition labelling
- Labelling System for Genetically Modified Foods in Japan

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# **Current Acts concerning food labelling in Japan**

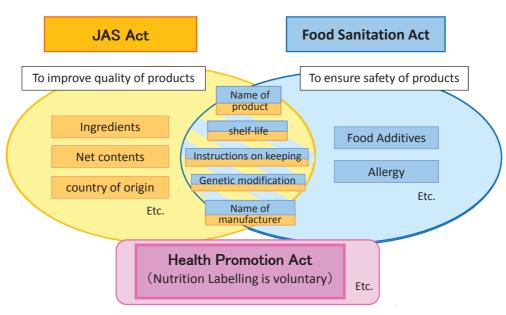
Issue 1: There has been a number of various notifications under the three Acts.

### Japan Agricultural **Food Sanitation Act Health Promotion Act** Standard Act\* [Purpose] [ Purpose ] [ Purpose ] • To improve nutritional status and To prevent the sanitation hazards · To improve quality of agricultural promote health resulting from eating and drinking and forestry products •To help consumers choose products by enforcing proper quality labeling Establishment of the necessary Enactment of labeling standards to Concerning food labelling Enactment of nutrition labeling criteria for the labeling of food to be observed by Manufacturer, etc. standards (Article 31) serve for the purpose of marketing (Article 19-13) Compliance with Standards (Article 19) Compliance with Standards for (Article 31-2) Quality Labeling (Article 19-13-2) Enforcing the regulations concerning Food and Additives, Apparatus and Containers and Set a general policies Packaging Implementation of the national • Prohibition of the sales for the health and nutrition survey Enactment of Japanese Agricultural products which do not conform to Prevention of passive smoking Standards the standards and/or criteria · License pertaining to Food for Grading in accordance with •Giving approval to a person who **Special Dietary Uses** Japanese Agricultural Standards intends to conduct business from etc. the prefectural governor

# Diagram of the current Acts concerning food labelling in Japan

Issue 2: Several definitions differ among the three Acts.

Issue 3: Nutrition labelling is voluntary in the current system.

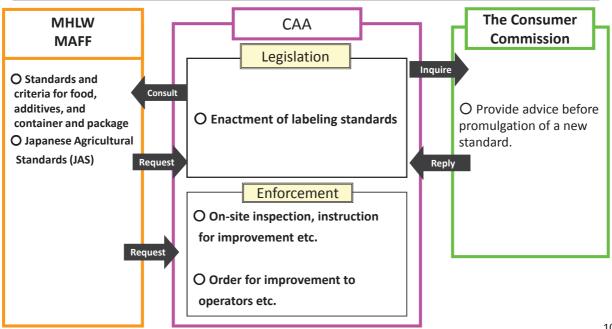


JAS Act: Japan Agricultural Standard Act

9

# **Current Food Labeling**

- CAA is responsible to all kinds of administrative work regarding to labeling regulation regarding JAS, Food Sanitation Act and Health Promotion Act.
- CAA is in charge of planning and drafting labeling standards.
- CAA has fine collaboration with other relevant ministries and a commission for the enforcement



# Progress toward a new Act

To address these issues in:

- 1. Some different definition among Acts
- 2. Many and various notifications under Acts
- 3. Voluntary nutrient labelling



One-year roundtable discussion (From Sep. 2011 to Aug. 2012)



Report (Aug. 2012)





**Food Labelling Bill** 



Cabinet approval (June 14, 2013)



Proclamation (June 28, 2013)

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# The New Food Labelling Act

# **Objectives:**

- To ensure food safety while eating and drinking
- To ensure general consumers' opportunities to select food subjectively and rationally

# The New Food Labelling Act (Cont.)

# Areas of focus:

- Establishment of a comprehensive system regarding food labelling
  - : some different definitions among Acts are standardized (e.g. "fresh food" and "processed food)
- Introduction of mandatory nutrition labelling

13

# Specific rules under the new Act



Food Labelling Standard (By June 2015)

# **Mandatory nutrition labelling**

**Points of discussion**, which Consumer Affairs Agency has been considering on:

- 1. Which nutrients should be mandatory?
- 2. What kinds of food should be exempted?
- 3. What kinds of manufacturers should be exempted?

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# Points of discussion (cont.)

4. Whether breakdown of the declarations should be introduced or not?

Energy
Protein
Fat
Carbohydrate
Sodium
Saturated Fatty Acid

Energy Protein Fat

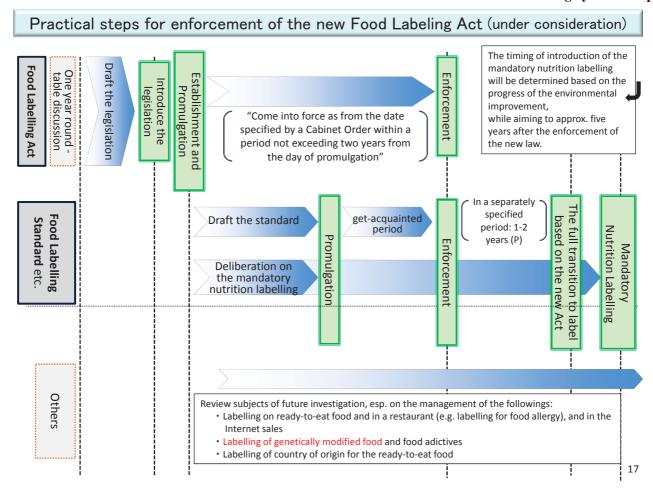
**Saturated Fatty Acid** 

Carbohydrate Sodium

5. Whether amounts of sodium should be declared as sodium or salt equivalents?

OR

6. Reviewing Nutrient Reference Values (NRVs)



# **Topics**

- About Consumer Affairs Agency
- Perspective of Food labelling
  - -Current acts concerning food labelling
  - A newly promulgated act: the Food Labelling
     Act of 2013
  - Introduction of mandatory nutrition labelling
- Labelling System for Genetically Modified Foods in Japan

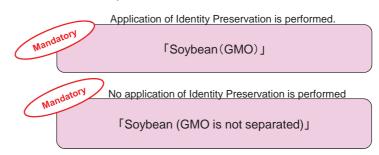
# Labeling of GMO

O 8 kinds of agricultural products and their processed foods including GMO are required to notify, "GMO" or "GMO is not separated" mandatorily, and "non-GMO" voluntarily.

### <How to label GMO product>

<8 Agricultural Products Required for GMO Labeling>

- Soybean
- -Corn
- Potato
- Alfalfa
- Sugar beet
- ·Rape seed
- Cotton seed
- Papaya



<How to label a non-GMO product>

Application of Identity Preservation is needed.

「Soybean (non-GMO)」
「Soybean (non-GMO is sorted)」

Name: Tofu
Ingredients: Soybean (GMO is not separated), .......

Weight......

Options

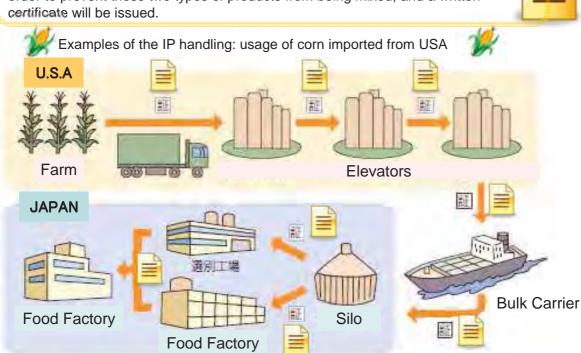
Name: Miso(rice)
Ingredients: Soybean (non-GMO),
.......
Weight······

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# Identity Preserved(IP) Handling

**Identity Preserved (IP) Handling** is a procedure where genetically modified products and non-genetically modified products are handled separately in order to prevent these two types of products from being mixed, and a written certificate will be issued.





# Thank you very much for your attention.



Official mascot of Consumer Affairs Agency

# Roundtable Discussion on Food Safety and Standards

# **TACKLING FOOD SAFETY CHALLENGES**

March 5, 2014

Co-chairs:	Prof. Dedi Fardiaz, Bogor Agricultural University, Indonesia Prof. Songsak Srianujata, Institute of Nutrition, Mahidol University, Thailand
9:00 - 9:10am	Welcome and Introduction
9:10 - 10:00am	Updates on Food Safety Regulatory Frameworks
	Cambodia - Mr. Sin Sideth Deputy Director, Department of Laboratory, CAMCONTROL, Ministry of Commerce, Cambodia Lao PDR
	<ul> <li>Ms. Viengxay Vansilalom         Director, Food Control Division, Food and Drug Department,         Ministry of Health, Lao PDR     </li> </ul>
	Myanmar - Dr. Khin Saw Hla Deputy Director, Food Control, Food and Drug Administration, Ministry of Health, Myanmar
	Vietnam - Ms. Nguyen Thi Minh Ha Deputy Director, Codex Office, Vietnam Food Administration, Ministry of Health, Vietnam
10:00 - 10:20am	Morning Tea Break
10:20 - 12:30pm	Discussion
	Key Topics - Food Additive Safety - Consumer Protection - SME Education
12:30pm	Lunch



# WORKSHOP AND ROUND TABLE DISCUSSION ON FOOD SAFETY AND STANDARDS

March 04-05, 2014 Yangon, Myanmar

Sin Sideth
Deputy Director of Lab Dept,
Camcontrol DG, Ministry of Commerce

# **OUTLINE**

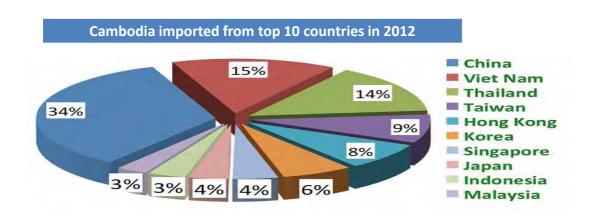
- Cambodia Trade
- Cambodia Food Safety Management System
- Legal and Institutional Framework and Adoption of Food Safety Standards
- Implementation and Law enforcement related to the Joint Prakas IMP 868
- Challenges and Summary

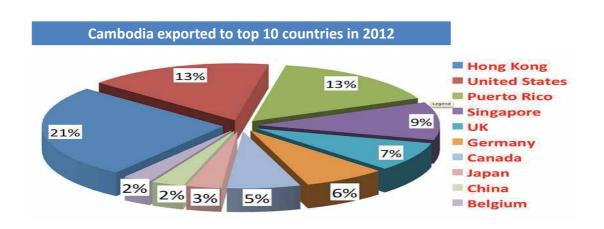
# **CAMBODIA TRADE**

# <u>Cambodia Trading</u> Partners:

- ASEAN (estimate 600 million consumers)
- Member state of WTO (2004)
- Food export less than import due to SPS issues and Supply demand



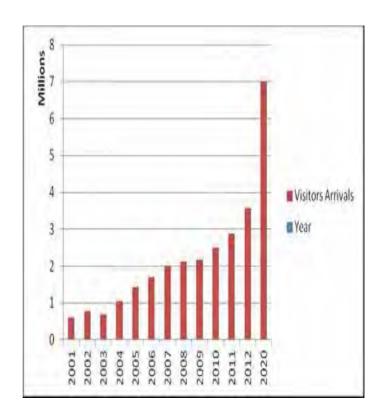




Tourism associated with food safety?

# Income generated from Tourism sector:

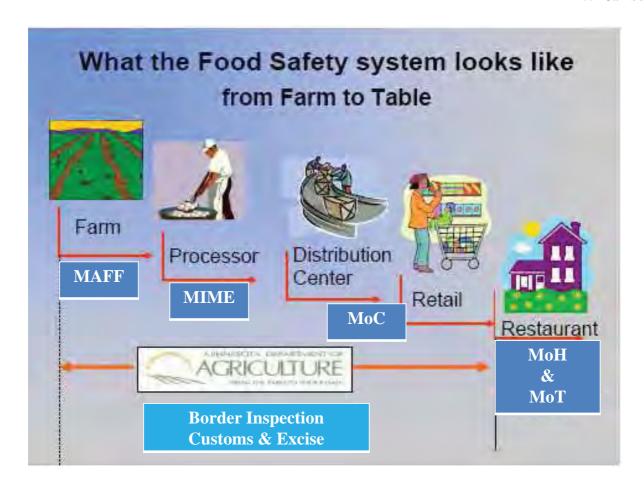
2009 - \$ 1,561 million 2010 - \$ 1,786 million 2011- \$ 1,912 million 2012 - est. \$ 5,000 million



### Cambodia Food Safety Management System

Multiple Agencies System based on Farm to Table Approach:

- Inter-ministerial agreement for the implementation and institutional arrangement on food safety management, Prakas IMP 868 (October 22, 2010) established
  - IMP 868 gives mandates to six Ministries
    - MAFF at Primary Production / Primary processing
    - MIME at Secondary processing (SMEs and Factories)
    - MoC at the markets and import (adds, store, display ...)
    - MoH at Canteens and Restaurants (Hygiene inspection )
    - MoT at Canteens and Restaurants (Licensing for business operation)
    - Customs and Excise (border inspection as leading agency)



### Cambodia Food Safety Management System (cont.)

For the facilitation and coordination RGC has established numbers of Committees:

- Inter-Ministerial Committee (1998) chaired by SM/Minister of Commerce (8 ministerial members attended)
- National Condex Committee (2000)
  - 8 Ministerial members invited as IMC
  - 4 Technical Working Groups
  - One Secretariat assigned (from CAMCONTROL)
  - Once National Codex Contact Point assigned

# Legal and institutional framework and adoption of food safety standards

Govt. Policy on Food Safety Standards

- not reinvent the wheels
- to harmonize with international standards
  - Codex, OIE and IPPC
  - as well as regional standards (ASEAN)

Working with international partners (SPS/TBT)

- Codex contact point Camcontrol
- OIE contact point MAFF
- IPPC contact point MAFF
- TBT contact point MIME

# Significant existing laws and regulations for current practices

- Law on the management of quality and safety of products and services " LMQPS" (26 Jun 2000)
- Law on the management of pesticides and fertilizers (14 Jan 2012)
- Law on Cambodia Standards (24 Jun 2007)
- Law on Fishery (21 May 2006)
- Sub-decree on Food Hygiene for human consumption (12 Jun 2003)
   However, technical regulations are still challenging issues for line ministries.



# to enhance the competency of food inspection and law enforcement, line ministries agreed on :

• to adopt Codex General Standards/Codex guidelines to be as National Standards but the adoption procedure is not clear (through ISC or NCC?)

#### In addition:

- National Food Safety Policy (lead by MoH and draft ongoing)
- LMQPS will be amended to be a New Food Safety Law (lead by NCC and MoC seeking fund and expert)

# Implementation and law enforcement related to the joint prakas IMP 868

#### Refer to IMP 868 relevant ministries shall:

- Policy development, legal framework, standards and technical regulation development;
- Regulation and enforcement of food safety including food business registration and licensing, inspection and other legal enforcement actions;
- Verification and competent authority certification;
- Development and implementation of risk analysis and risk management systems;
- Data collection, scientific and technical research with the purpose of monitoring risk

# Implementation and law enforcement related to the joint prakas IMP 868

#### Refer to IMP 868 the food business operators shall:

- provide safe food and to address safety issues as they arise
- implement Food Safety Management Systems (FSMS);
- ensure compliance with food requirements and standards;
- alert the Ministry and Competent Authority on food safety issues and collaborate closely with the Ministry and CA in implementing measures to avoid or reduce risks caused by its products;
- respond quickly to food safety concerns as they arise;
- voluntary recall the food products;
- record information of its supplier and shall make it available to the Ministry and CA on demand and
- Food business operators shall ensure that food is adequately labeled

# Implementation and law enforcement related to the joint prakas IMP 868

Refer to IMP 868 consumers have shall contribute to implement of food safety by:

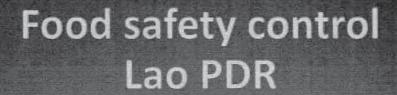
- understanding about food safety issues and consume only food that meet food requirements and standards
- taking food safety problems to suppliers, report to the Ministry or Competent Authority

**Challenges:** Lack of consumers' awareness on food safety

### Challenges and Summary

- lack of Coordination and cooperation amongst line ministries although IMC plays the role as facilitator and coordinator.
- Procedure for adoption of Codex standards as Technical Regulations
  - lack of technical regulations for law enforcement due to Codex general standards not yet adopted (food additives, vet drug, pesticide residues, contaminants, ...)
- lack of transparency
- capability of CA limited
- consumer awareness
- resources limited (Lab's equipments and inspection tools)
- GHP, GMP, HACCP is not mandatory for specific food

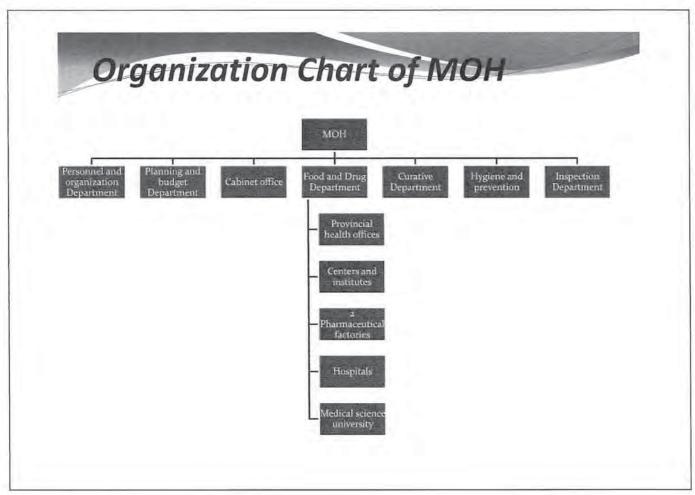
# THANK YOU VERY MUCH

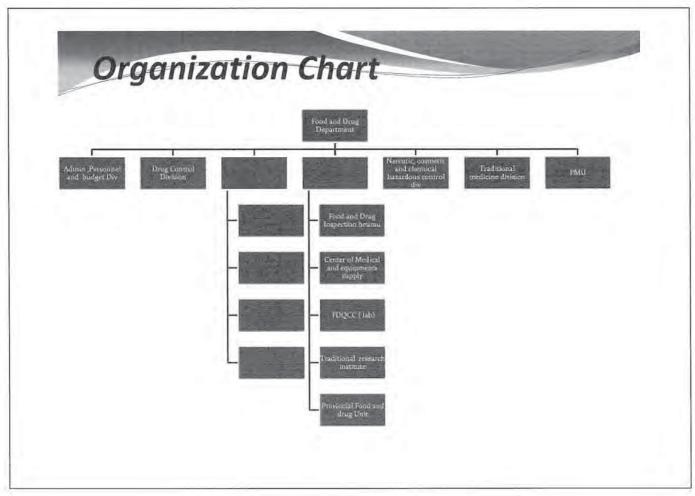


Dr Somthavy CHANGVISOMMID
Director General of Food and Drug Department
Ministry of Health, Lao PDR
email: csomthavy\_fdd@yahoo.com,codexcontactpoint\_lao@yahoo.com

#### Content

- Introduction
- Regulatory frame work
- activities
- weaknesses and recommendation





#### Legal and institutional Francis work

#### 1. MOH

- a.FDD- Food safety authority
- Food safety legislation development
- Premarketing approval: registration, import export permit
- Food testing services
- Information, Education, Communication and Training on Food Safety, QA
- Inspection of food businesses: Food establishments, retailers, markets, border check points (BFDI)
- -Food and Drug administration committee ( Chair man and secretariat)
- -Food borne disease surveillance and Food Safety emergency respond Inspection and certification of imported
- Codex contact point
- b. DHP- restaurants and street food vendors

#### -tegal and Institutional Language

#### 2. Ministry of Agriculture

primary production control at farm level

- Plant and animal health control,
- \*Implementation of GAP, plant quarantine, registration of pesticides, Vetdrugs, GVP, Good Husbandry Practice
- **TLaboratory Services**

# Food Safety legislation

- Food law revised 2013
- Food Safety policy 2009
- Regulation on Drinking water in packaging 585/MOH 2005
- Regulation on safe food processing ,
   Imported Exported food No 586/MOH
- Food labeling 2009
- Food premises registration No 1600/FDA
- Food inspection regulation 297, MOH ,
   24 Feb 2012





### Food Safety legislation

- GMP Guideline for Food establishment and drinking water processing plants 2008
- Decree on Iodizes Salt, drinking water, fish sources, Ice, Ice cream..
- Revising Food law and Food Safety emergency WG and plan





### Food testing

- 2 laboratories :
- Food and Drug Quality Control Center man laboratory for food testing for microbiology analysis and chemical analysis, it preparing to accredited with ISO 17025
- Vientiane municipal lab basic microbiology testing and some chemical parameters
- water supply lab- heavy metal testing
- The monitoring of contaminants and FBD have been carry out by support of WHO but not regularly

# Food training and education

- Food inpectors have vary level of trainings: Pharmacy courses, special trainings on Food Safety Quality Assurance in international and regional level, Audit courses
- FDD with assistant of WHO, FAO experts provide training on GHP, GMP and HACCP for Food producers, series training of risk analysis, Risk based inspection
- Disseminated existing Food Safety legislation
- On job training on application for GHP and GMP

### **Entry points inspection**













Minimarket inspection



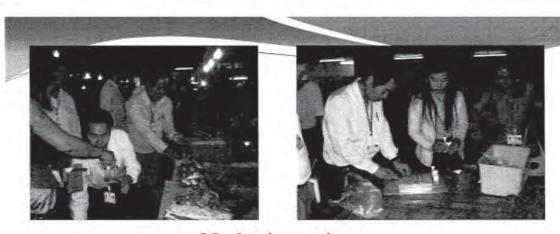




Food establishment inspection







Market inspection









Trainings













# Cooperation with key stakes holders

- Consultation with Food and drug administration members in policy level for food safety issues
- work with national Codex committees and Food Safety technical working group in considering food safety activities in technical level
- Pesticides committee consultation
- Work with national standards body in development of Food standards
- Work with SME office (SMEPDO, APO) in conducting training on GMP and pilot implementation

## Capacity building

- Receiving technical assistant and trainings supported by WHO, FAO(funded by NZAID, Japan) on Food inspection, risk analysis, Risk based inspection, Food import- export inspection and certification)
- EU ASEAN program on inspection and food testing
- Training program in Japan for 5 months on Food safety control system (1 senior staff, 2 technical staff)
- Food Sanitation training for 3 weeks in Japan (JICA)
- GMP training and pilot implementation project support by MAF, Japan through APO

### Challengers

- WTO accession and international standards requirements
- ASEAN harmonization
- Regional and international market access

#### weaknesses

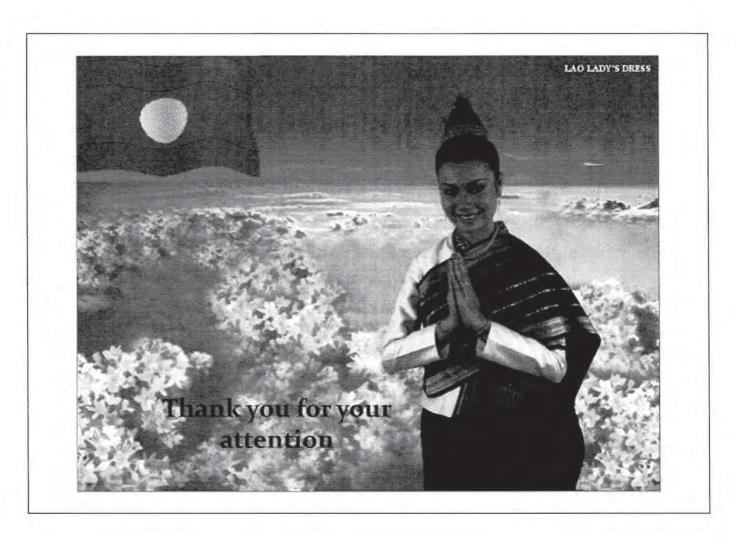
- Limited food legislation and standards
- Limited skilled staff and numbers
- Limited Food testing capacities e.g equipments and facility and skilled staff
- Food Imported through land border and not approved by food safety authority
- Enforcement activities are not effectives

### Recommendation

- Develop necessary food legislation and standards and requirement on Food inspection
- Strengthen Food control system: manpower, food testing laboratory, inspection and enforcement
- Capacity for food safety staff and inspectors in short term and long term
- Establish Food science and technology faculty and food safety curriculum

### summary

- Food Safety control system in Lao PDR is in the low level and starting build up the capacity
- It needed to have assistant in strengthen FSMS in better in order to fulfill the consumer protection task effectively and reduces foodborn illnesses
- support lao producers to go for international market.
- Capacity for food safety staff and inspectors in short term and long term
- Establish Food science and technology faculty and food safety curriculum



# Workshop on Food Safety and Standards

Sedona Hotel Yangon, Myanmar 4<sup>th</sup> to 5<sup>th</sup> March, 2014

#### **ASEAN Member Countries**



# **Updates of Food Safety Regulatory Frameworks**

From Myanmar

Presented by
Food Division
Department of Food and Drug Administration

#### **Vision**

It is an important task to keep food in retail service free from pathogens and harmful chemical substances or low enough to cause any health hazards

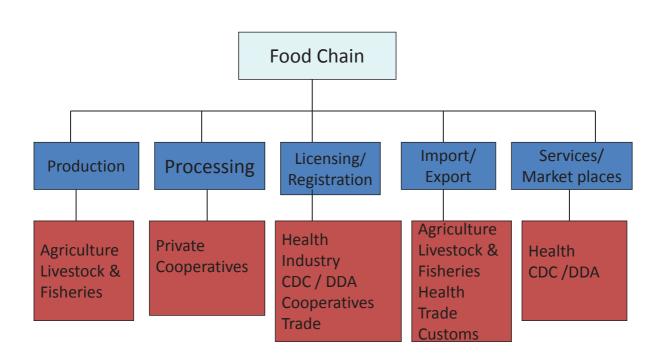
- Foodborne diseases are a major health and economic problem in both industrialized and developing countries.
- The incidence of foodborne diseases in the industrialized countries has been estimated to be as high as 10% of the population.

In some countries the trend is on the increase.

The developing countries bear the biggest burden of food-borne diseases in the world

- Unsafe levels of chemicals and presence of pathogens in food may cause serious health problems, they also pose threats to trade and the environment
- Food production, processing, and preparation are among the most important economic activities for almost all countries and any disruption can have a major impact on the country and on the confidence in the food supply

# Responsible agencies along the food chain



#### Hazards

- Biological Hazards
- Chemical Hazards contaminants
  - Environmental
    - Agrochemicals
    - Food Additives
    - Naturally occurring toxins
    - Processing contaminants
    - Allergens
- Physical Hazards

# Collaboration among inter-related sectors

- all professions
- all sectors
   (industry, government, consumers and academia)
- all levels (local, national, regional, international)

# Comply with guidelines, standards and specifications

- Factory Specification
- Commodity guidelines and standards
- Regional guidelines and standards
- International guidelines and standards

#### Related Laws and guidelines

- Agriculture, Fisheries and Livestock sector related laws, regulations and guidelines
- National Food Law
- Industries Registration Laws
- Import / Export Law
- Municipal Law

International guidelines and references
 IPPC and OIE guidelines
 Codex guidelines and reference standards
 WTO – Sanitary and Phytosanitary Measures

- Practices and standards are in line with codex guidelines and standards
- Myanmar adopted codex guidelines and standards as national reference in 2005
- Government and industry are widely applied for ensuring food safety and quality nowadays.

#### **Actvities**

Premarket assessment

Pesticide Registration and importation assessment

IPM procedures

Good Agriculture Practice, Good Farming Practice,

Food Hygiene practices and guidelines Import / Export guidelines

- Post-market assessment conducted on commodity basis
- Risk assessment on commodity and priority basis

Food control work is a multisectoral, departmental and services involvement.

As food and drug safety is concerned with a number of sectors including agriculture, fisheries, industry, trade & environment, in recognition of the need for integration, Food & Drug Board of Authority (MFDBA) has been formed in accordance with the provision of National Drug Law and reformed in 2000 and 2013.

- To ensure efficient and uniform control throughout Myanmar, various levels of Food and Drug Supervisory Committee (FDSC) has been formed in 1992 and reformed in 2002
- Food Advisory Committee, Food Orders and Directives Sub-committee and Food Technical Affairs Sub-committee have been formed in 2002 revised in 2013
- The drafted 6 no. of guidelines are under reconsideration

- Food and Drug Administration (FDA) has been formed under the Department of Health according to National Drug Law
- Upgraded to Department of Food and Drug Administration since 1<sup>st</sup> August 2013
- Branch of DFDA in Yangon and Mandalay
- States / Regional Offices in remaining 12 States / Regions
- Border Stations in Muse, Myawaddy and Tamu (Total 13)

- Department of Food and Drug Administration is concerned with control of processed food
- Activities include –
   Development of legislation
   Standards Development
   Premarket Assessment
   Monitoring and Surveillance
   Laboratories development
   Enforcement works

Trainings and education to Food Inspectors,
Laboratory Technicians, Industry
Participation in international standard settings
Consumer awareness with IEC materials

# Flow Chart for Food Manufacturing Recommendation

Case application forwarded by respective company to FDA

Field Inspection and Sample Collection and Data assessment

Case report submitted to CFDSC for consideration

Forwarded to MOH for confirmation

Issue Recommendation

- Documents to be submitted
- Factory Layout and localization map
- Process and Quality Control
- Ingredients used
- Machines and its specifications
- Food Handlers record
- label

#### Import Recommendation (IR) Process

Applicant	Food and Drug Administration
Case File Application with - Product Specification - Ingredient list - Product Registration	Document Assessment
Preshipment Sample	Laboratory Assessment
Pick up Import Recommendation for Importation License at Ministry of Commerce	Issue Import Recommendation Certificate (2 years validity)

#### ImportHealth Certificate (HC) for Food Importation

Applicant	Food and Drug administration
Case File Application with  - Import Recommendation  - Bill of Lading  - Import Declaration  - shipping documents  - Health Certificate / Certificate of analysis	Document Assessment
Representative sample of Imported Foods for Customs Clearance	Laboratory Analysis of imported food (Shipment samples)
Pick up HC for imported food for Customs Clearance	Issue HC for Customs clearance

### 2013 Work load for Import Assessment

Categories	Total		Items
	IR	IHC	
Fats & Oils(F&O)	472	740	RBD Palm Olein, Olive Oil, Sunflower Seed Oil, Soya Bean Oil, Sesame Oil, Margarine, Shortening, B.O.S, Rice Bran Oil, Coating Fat
Food Additives(FA)	525	467	MSG, Flavour, Colour, Yeast, Seasoning Powder, Baking Powder, Kularome, Maltodextrin, Citric acid, jelling agents, etc
Food General(FG)	449 5	169 0	Biscuits, Cookies, Chocolate, Wafer, Cracker, Cakes, Dried Fruits, Nuts, Juices, Soft Drinks, Sauces, Snacks, Candy, Chewing Gum, Instant Noodles, Instant Vermicelli, Cereals, Peanut Butter, Sugar, Bird's Nest, Chicken Essence, Bread Crumb, Donut Mix, NDC, Coffee, Tea, Porridge, Oat Meal, Mayonnaise, Roasted Seed, Jam, Flour (Wheat, Corn, Tempura)Jelly, Jelly

Categories			Items
	IR	IHC	
Milk & Milk Products(M&M)	307	717	Whole Milk Powder, Skim-milk Powder, Sweet Whey Powder, Whey Powder, Butter, Cheese, SBC, EFM, UHT Milk, Colostrum Milk Tablet, Yoghurt
Food for Special Dietary Uses(Sp.F)	30	6	Glucerna, Prosure, Ensure, Diebetasol, Casilan
Frozen Food (Fr.F)	120	41	Ice- Cream, Processed Meat, Chicken Frank, Fish Ball, Meat Ball, Sausage, Paratha, Pastry, Green Peas, Mixed Vegetables, French Fries
Functional Food(FF) Dietary Supplements	268	137	Dietary Supplement Products, Functional Foods, Collagen, Antioxidants, Omega 3, Vitamin & Mineral Supplement, Lecithin, Probiotics, Melatonin, Amino Acid, Herbal Supplement, Bioactive Polysaccharides, Propolis
Bottled Drinking Water (B.D.W)	19	-	Natural Mineral Water

### **Export Recommendation (ER) Process**

Applicant	Food and Drug Administration
Case File Application with - Product Specification - Ingredient list - Product Registration - reference label for bulk size	Document Assessment
Representative Sample	Laboratory Assessment
Pick up Export Recommendation for applying Export License at Ministry of Commerce	Issue Export Recommendation Certificate (2 years validity) 28

### **Export Health Certificate Process**

Applicant	Food and Drug Administration
Case File Application with  - Export Recommendation  - Shipping Documents  Bill of Lading  Import Declaration  - Health Certificate /  Certificate of Analysis	Document Assessment
Representative sample of exported food for Customs —— Clearance	Laboratory Analysis of exported food (Shipment samples)
Pick up HC for Customs Clearance	Issue HC for Customs clearance

### 2013 Work load for Export Assessment

Categories	Total	
Export Health Certificate(FE)	120	Rice, Bean, Palm Sugar, Tea Powder
Export Recommendation (FER)	148	Tradition Food, Coffee Mix, Tea Mix, Instant Noodles, Instant Vermicelli

#### **Challenges**

#### Human resources development

- Study tour on food inspection and certification
- Short-term and long-term trainings on food science and technology
- Trainings on chemical analysis of contaminants, food fortification

#### Upgrading of laboratory facility

- Extension of laboratories
- Laboratory accreditation

Participation in International and Regional food standards works



# WORKSHOP AND ROUNDTABLE DISCUSSION ON FOOD SAFETY AND STANDARDS



4-5 March, 2014

**Presenter:** Eng. Nguyen Thi Minh Ha

Vietnam Codex Office - Vietnam Food Administration



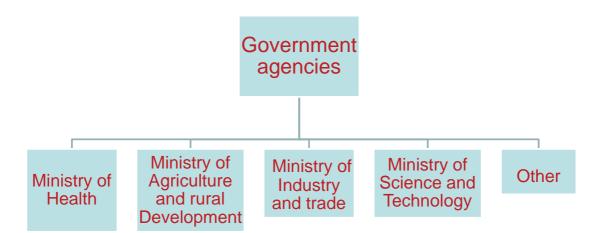
#### Content



- 1. Government agencies and other bodies involved in food regulary system
- 2. Methods for management of food safety
- 3. Challenging issues
- 4. Conclusion

## 1.Government agencies and other bodies involved in food safety control system





## Food safety responsibility Position of Ministries along the food chain



Input provider	Producers	Processor	Wholesale trader	Retailer	Consumers
Input	Production	Processing	Trade	Market	Table
MARD	MARD	МОН	МОН	МОН	МОН
МОН		MARD	MOIT	MOIT	
MOIT		MOIT	MARD		
		MO	ST		

MOH: Ministry of Health MARD: The Ministry of Agriculture and Rural Development

MOST: Ministry of Science and Technology MOIT: The Ministry of Industry and Trade

#### **MINISTRY OF HEALTH - MOH**



**Responsible for** the governance and guidance of the health, healthcare and health industry of Vietnam.

#### Responsible for:

 Development of standards (including the Codex Alimentarius), laboratory accreditation, and quality control for imported foods.

 Development of technical regulations, and the annual listing of foods requiring inspection.



#### Cont.



#### Responsible for supervising food hygiene and safety:

- All processed foods
- Food Additives
- Colours and Flavours
- Residues
- Processing aid
- Natural mineral water, prepackaged water
- Functional food/Fortification food
- Imported foods



### MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT - MARD



- Safety of Fresh foods and raw materials
- Animal origin-Department of Animal Health (DAH);
- Plant origin Department of Plant protection (DAP);
- Fishery products National Fishery Quality Assurance Department (NAFIQAD)
- Charge of production, import-export, distribution, and use of pesticides in plants and products of plants, veterinary drugs and bio-products, growth promoters



#### **MINISTRY OF INDUSTRY AND TRADE - MOIT**



- Production and marketing of alcohol, beer, beverages, confectionary, milk, vegetable oil, flour, starches, and bottled water products.
- Controlling microbiological contamination and chemical residues during food processing
- Developing a food hygiene and safety control program in the food processing industry.
- Trade aspects of food. labeling of goods, which, while less directly relevant to food safety,
- Overall quality management

## MOST Ministry of Science and Technology



#### Responsible for scientific and technological activities

- Development of scientific and technological potential;
- Intellectual property;
- Standardization, measurement and quality control;
- Automic energy, radiation and nuclear safety;
- State management of public services in the domains under its management in accordance with law.

## Other bodies involved in food safety control system



- Institutes, Universities
- International organizations : FAO, WHO, CAC, OIE...
- Associations, Manufactures
- Consumers
- Other

#### 2. Methods for management of food safety



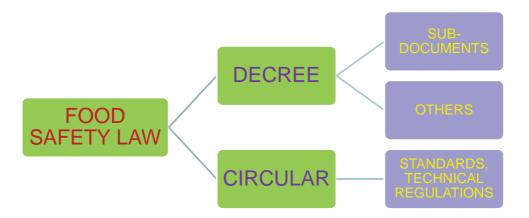
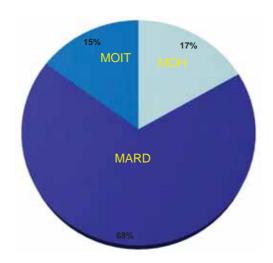


Figure 1. Diagram of National Standards for Foods managed related ministries





#### 2.1 STANDARDS ON FOOD SAFETY



National standards: Vietnam National Standards

Standards for commodity

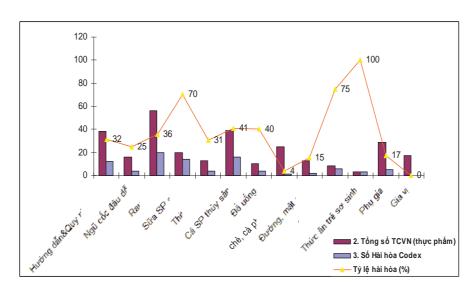
Standards for food processing

Total: 287 standards (almost based on Codex Standards) such as :

- Milk and milk products
- Fresh fruits and vegetable
- Cereals and cereal based-products
- Fish and fishery products
- Meat and meats products
- Guidelines and code of practices
- Other ...

#### Percentage of national standards based on Codex standards





#### 2.2 TECHNICAL REGULATIONS



➤ There are about 50 technical regulations of food promulgated by MOH until 2013

1. Food	2. Number	3. Number based on	4. Percentage	5. Other
categories		<b>Codex Standards</b>	with Codex (%)	
			100.00	
Food Additives	23	23		
Supplements	6	6	100.00	
Beverages	3	2	66.67	1
Milk and Milk			100.00	
products	5	5		
Contaminants			66.67	1
in Food	3	2		
Formula	4	4	100.00	
			50.00	3
Other	6	3		
Total	50	45	90.00	5

#### 2.2 TECHNICAL REGULATIONS



There are about 29 technical regulations promulgated by MARD until 2013

Food Categories	Number	Based on
Meat	3	Codex, ISO
Legumes	6	Codex, ISO
Fruits and vegetable	3	Codex, ISO
Animal feed	2	Codex, ISO
Fish and fishery products	14	Codex, ISO, EU
Other	1	SEV, ISO
Total	29	

#### 3. Challenging issues



#### Challenging

- Vet drugs residues in meat
- Pesticide residues in fresh vegetable and fruits
- Conditions of processing and handling street food in small markets and restaurants
- Using food additives in food processing, particularly using artificial sweeteners and colours
- Date marking and nutrition labelling of pre-packaged foods
- Cooperation among related ministries is not close and uniform
- Food standards and technical regulations are not met the demands of food industry domestically as well as internationally;
- Lack of skill and experiences of inspectors in terms of food safety issues

#### 4. Conclusion



#### 1. Food Regulatory Frameworks

- Establish government endorsed food regulatory systems
- Develop, implement and enforce food safety standards

#### 2. Food Inspection and Certification Systems

- Develop legislative frameworks for food control management
- Establish communication systems to support food inspection including information, education and training (electronic information exchange systems regarding recall, communication with trade partners and consumer information)
- Develop laboratory and technical capacity including training of personnel

#### 4. Conclusion



#### 3. Technical Skills and Human Resources

- Develop technical skills in areas across the food control system
- Develop skills in food safety risk analysis

#### 4. Information Sharing and Communication Networks

- Utilise and establish relevant forums for information exchange
- Encourage collaboration on food safety capacity building between economies across the region and internationally
- Establish surveillance systems and mechanisms for transparent information-sharing that provide accurate and timely information



1

# Identification of Food Safety Challenges in the Region (CLMV Countries) and Capacity Building Needs

March 4-5, 2014, Yangon, Myanmar

#### **Chemical contaminants (Cambodia)**

Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)

Food Safety Challenges Chemical Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
Pesticide and Veterinary drug	Fresh fruits and vegetables	-Law enforcement and monitoring;
residues,	Fish and meat and their products	- GAP/training;
		- Strengthening lab capacities
Mycotoxins (Aflatoxin, Ochratoxin,	Cereals and cereals products	- Post harvest management;
etc.),		- Strengthening lab capacities
Food Additives, preservatives etc.	Processed food	-Law enforcement and monitoring; - GMP/training
		- Strengthening lab capacities
Heavy metals (Hg, Cd, Pb, As),	Fish and fish products	- Monitoring
	Cereal; Vegetable	- Risk communication
	Ground Water	
3-mcpd, benzopyrene, melamine,	Soy sauce, oil	- Training new technology on soy
	Milk products	sauce production
		- Strengthening import inspection

#### Microbial pathogens (Cambodia):

Salmonella spp., Vibrio parahaemolyticus, E. coli: EPEC, ETEC, EHEC, EIEC, Vibrio cholerae, Staphylococcus aureus, Listeria monocytogenes, etc. Parasites (liver flukes): Clonorchis, Ophisthorchis

Food Safety Challenges Microbiological Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
Salmonella spp,	-Meat and meat products	- GHP/GMP/HACCP
E. Coli; staphylococcus	<ul><li>Meat and meat products;</li><li>Water, fruits and vegetable</li></ul>	- GHP/GMP/HACCP
Listeria monocytogenes	-Fish and fish products, (Sea food)	- GHP/GMP/HACCP
Vibrio cholerae	Fish and fish products, (Sea food)	- GHP/GMP/HACCP

#### **Chemical contaminants (Laos):**

Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)

Food Safety Challenges Chemical Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
Heavy metals	drinking water	monitoring the level in water sources and environment, control
Aflatoxin, Ochlratoxin	nuts, coffee	storage and drying process control, GMP
Pesticides, HERBICIDES	fruits and vegetables	registration, GAP
Exessives use of Food additives	preservatives and color	monitoring the residues and notify and education
Prohibited FA(formalin, borax) Betagonists, natural toxin, hormone, growth promoter	Seafood, meat meat	regular inspection, destroy and punishment

#### Microbial pathogens(Laos):

Salmonella spp., Vibrio parahaemolyticus, E. coli: EPEC, ETEC, EHEC, EIEC, Vibrio cholerae, Staphylococcus aureus, Listeria monocytogenes, etc. Parasites (liver flukes): Clonorchis, Ophisthorchis

Food Safety Challenges Microbiological Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
Salmonella	chicken	good storage and cooking practice
E.coli	vegetables, water sources, street food	good hygiene practice, education 5 keys safer food
Vibrio. parahaemolityticus	seafoods	monitoring import food, good storage and cooking practice
Staphylococus au.	RTE , street food	Good hygiene practice
Ophistorchis	Fish	cooked food consumption

#### **Chemical contaminants (Myanmar):**

Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)

Food Safety Challenges Chemical Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
Histamine	Fishery – anchovy (dried products)	improve storage and handling
Non food color	Fishery products	GMP
Antibiotic residues (Nitrofuran, Chloramphenicol)	Fish and shrimp, raw meats	GAP/GFP
Nitrite	Dried fish(Snake Head), Processed meat products	GMP
Hormone	Dairy products	GAP

#### Microbial pathogens (Myanmar):

Salmonella spp., Vibrio parahaemolyticus, E. coli: EPEC, ETEC, EHEC, EIEC, Vibrio cholerae, Staphylococcus aureus, Listeria monocytogenes, etc. Parasites (liver flukes): Clonorchis, Ophisthorchis

Food Safety Challenges Microbiological Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
E.coli, fecal coliforms	pulses and beans, vegetables	GAP – post harvest
Vibiro cholerae	ice products (eg. ice- cream)	GMP
Salmonella spp.	Bakery products	GMP
Staphylococcus aureus	processed food (milk and milk products), salads	GMP, GHP

#### **Chemical contaminants (Vietnam):**

Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)

Food Safety Challenges Chemical Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)
Pb,	Canned foods including canned fruits, water sources,	control from farm to table,
Hg	Fish and fishery products	control the animal feed and vet drugs, apply HACCP
Pesticies	fresh fruits and vegetable, processed fruits and vegetable	make a list of pesticide which is allowed to use with the MRLs enclosed with.
Food additives (colours)	beverages, ready to eat (crackers, snacks, potato chips), noodles	issue the list of food additives with the provisions to use in food processing.

#### Microbial pathogens (Vietnam):

Salmonella spp., Vibrio parahaemolyticus, E. coli: EPEC, ETEC, EHEC, EIEC, Vibrio cholerae, Staphylococcus aureus, Listeria monocytogenes, etc. Parasites (liver flukes): Clonorchis, Ophisthorchis

Food Safety Challenges Microbiological Hazards	Specific foods associated with the risk	Risk Mitigation (Any available intervention to reduce the risk?)		
Samonella spp	egg, poultry products, milk and meat products	5 keys of food hygienic conditions in processing.		
E.coli	beef meat products, beef fresh milk	cooking carefully, using clean water resources		
Listeria monocytogenes	raw milk and food made from raw milk. Contaminate a variety processed meats. RTE and hot dogs Smoked seafood	do not eat raw milk Cooking carefully Separate the uncooked meat from other cooked products and fruits and vegetable		
parasites	castle meat, game and poultry meat			

#### Please, rank the following diets started from the food consumed most

GEMS/Food Regional Diets	Rank			
	С	L	М	V
Cereals	1	1	1	1
Roots and Tubers	8	6	5	7
Pulses	15	6	4	14
Sugars and Honey	6	3	13	13
Nuts and Oilseeds	9	5	8	12
Vegetable Oils and Fats	7	4	14	10
Stimulants (Tea, Coffee)	11	3	11	9
Spices	10	2	7	15
Vegetables	2	2	2	2
Fish and Seafood	3	3	3	5
Eggs	5	5	9	4
Fruis	4	6	6	8
Milk and Milk Products	13	3	12	3
Meat and Offals	3	4	10	6
Animal Oils and Fats	14		15	11

#### Please, rank the following capacity building needs

	Rank (if any)			
Capacity Building Needs	С	L	M	V
Basic Chemical Risk Assessment	2	1	3	3
Basic Microbiological Risk Assessment	3	3	3	1
Practical Exposure Assessment of Food Additives	3	3	2	2
Practical Exposure Assessment of Contaminants	3	2	2	3
General Food Consumption Survey	1	2	1	2
Categorization of Food Establishment based on the Risk	1	2	1	4
Chemical Laboratory Analysis	2	1	4	3
Microbiological Laboratory Analysis	2	3	4	1

## Workshop and Roundtable Discussion on Food Safety and Standards March 4-5, 2014, Yangon, Myanmar Participant List

NAME	Company	Country
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