Workshop & Roundtable Discussion on Food Safety and Standards

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

Organizers

Co-organizer

Supported by

International Life Sciences Institute
Japan

Southeast Asia Region

Ministry of Health
Myanmar

Ministry of Agriculture, Forestry and Fisheries, Japan
# Workshop on Food Safety and Standards

**Program**  
March 4, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:00am</td>
<td>Registration</td>
</tr>
<tr>
<td>9:00 - 9:30am</td>
<td>Introduction &amp; Opening Session</td>
</tr>
<tr>
<td>9:30 - 10:00am</td>
<td>International Food Standards: Codex Alimentarius and Thailand’s Experience</td>
</tr>
<tr>
<td>10:00 - 10:30am</td>
<td>Regulatory Frameworks and Key Challenges of Food Safety in ASEAN Countries</td>
</tr>
<tr>
<td>10:30 - 11:00am</td>
<td>Morning Tea Break</td>
</tr>
<tr>
<td>11:00 - 11:30am</td>
<td>Risk Assessment of Food Additives</td>
</tr>
<tr>
<td>11:30 - 12:00pm</td>
<td>Import &amp; Export Control for Food Safety</td>
</tr>
<tr>
<td>12:00 - 12:30pm</td>
<td>Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience</td>
</tr>
<tr>
<td>12:30 - 2:00pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>2:00 - 2:30pm</td>
<td>Risk Communication Strategy for Food Safety</td>
</tr>
<tr>
<td>2:30 - 3:00pm</td>
<td>Perspective of Food Labeling Systems in Japan</td>
</tr>
<tr>
<td>3:00 - 4:00pm</td>
<td>Discussion</td>
</tr>
<tr>
<td>4:00pm</td>
<td>Closing</td>
</tr>
</tbody>
</table>
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
- Food Industry Affairs Bureau
- Agricultural Production Bureau
- Management Improvement Bureau
- Rural Development Bureau

Affiliated Agencies
- Forestry Agency
- Fisheries Agency
Organization of Food Affairs Bureau

Food Industry Affairs Bureau

<The organization>
- Administration Division
- Renewable Energy Policy Division
- Policy Division
- Commodity Trade Division
- New Business and Intellectual Property Division
- Food Industrial Innovation Division
- Export Promotion Division
- Biomass Policy Division
- Food Retail and Service Division
- Food Manufacture and Commerce Division

<The fields>
- Renewable Energy
- biomass
- The 6th Industry
- Export Industry
- New Industrial Fields
- Productivity
- Consecutiveness
- Tourism Industry
- Food Industry
- Logistic Industry

Promoting industries that make use of rural resources and assets
Enhancing linkage between producers and consumers

Our Policy

Globalize Japanese Food and Japanese Food Culture

Promote the use of Japanese food as ingredients of world cuisines (Made FROM Japan)
Expand Japanese food culture and Japanese food industries (Made BY Japan)
Promote the export of Japanese food (Made IN Japan)
Washoku, Listed As UNESCO's Intangible Cultural Heritage

Our Target in 2020
Total Amount of Export  1,000 bn.¥
History of This Workshop

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Location</th>
<th>Endorsed By</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>Mar./2010 @Tokyo</td>
<td>May/2010 @Tokyo</td>
</tr>
<tr>
<td></td>
<td>&gt;food standard</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Meeting of ASEAN+3</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>Mar./2011 @Bangkok</td>
<td>Nov./2011 @Jakarta</td>
</tr>
<tr>
<td></td>
<td>&gt;analysis method</td>
<td>11th Meeting of AMAF+3</td>
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</tr>
<tr>
<td>2012</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>Feb./2012 @Jakarta</td>
<td>Oct./2012 @Bangkok</td>
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<tr>
<td></td>
<td>&gt;food additive, HALAL</td>
<td>12th Meeting of AMAF+3</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Feb./2013 @Tokyo</td>
<td>Sep./2013 @Kuala Lumpur</td>
</tr>
<tr>
<td></td>
<td>&gt;food additive</td>
<td>13th Meeting of AMAF+3</td>
<td></td>
</tr>
</tbody>
</table>

ILSI Japan organizes this workshop under the sponsorship of the Japanese Government.

Expectations For This Workshop

- Enhancement of food safety
- Facilitation of food trade
- Expansion of food business opportunity
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.
Regional Leadership

ILSI Japan is a leader in bringing health solutions to many parts of Asia.

Through its Center for Health Promotion (Project PAN, Project IDEA, and Project SWAN), ILSI Japan has built and maintained effective partnerships with local institutions and governments in Cambodia, India, The Philippines, and Vietnam which ensures health programs are culturally appropriate and locally sustainable.
ILSI Japan / MAFF Project

**Overall Objectives:**

- To investigate Legal Framework on 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

<table>
<thead>
<tr>
<th>1st Term: June 2009 – March 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Legal Framework on Foods;</td>
</tr>
<tr>
<td>• Commodity Food Standards for Instant Noodles, Carbonated Soft Drinks, Prepared Frozen Foods and Cow’s Milk;</td>
</tr>
<tr>
<td>• Codex, Japan, Korea, China, Malaysia, Singapore, the Philippines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd Term: June 2010 – March 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Methods of Analysis;</td>
</tr>
<tr>
<td>+ Indonesia, Thailand and Vietnam</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3rd Term: July 2011 – March 2012</th>
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<tbody>
<tr>
<td>+ Legal Framework on Food Additives;</td>
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<td>All Countries listed in the above</td>
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<table>
<thead>
<tr>
<th>4th Term: August 2012 – March 2013</th>
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<tbody>
<tr>
<td>+ India, Bangladesh, Nepal and Sri Lanka;</td>
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<tr>
<td>All Items Investigated in the above;</td>
</tr>
<tr>
<td>Web-search System of the Information Collected</td>
</tr>
<tr>
<td>Fiscal Year</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>2010 (II)</td>
</tr>
<tr>
<td>2011 (III)</td>
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</table>
The 5th ILSI Japan / MAFF Project

5th Term (September 2013 – March 2014):

- All countries investigated and further expand to Brunei, Cambodia, Lao, Myanmar and Taiwan

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Codex</td>
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<td>2009, 2010</td>
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<td>Japan</td>
<td>2009</td>
<td>2009, 2010</td>
<td>2011</td>
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<tr>
<td>Korea</td>
<td>2009</td>
<td>2009, 2010</td>
<td>2011</td>
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<td>Taiwan</td>
<td>2013</td>
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<td>ASEAN</td>
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<td></td>
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<td>2013</td>
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<tr>
<td>Malaysia</td>
<td>2009</td>
<td>2009, 2010</td>
<td>2011</td>
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<tr>
<td>The Philippines</td>
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<tr>
<td>Singapore</td>
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<td>2010</td>
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<tr>
<td>Indonesia</td>
<td>2010</td>
<td>2010</td>
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<tr>
<td>Thailand</td>
<td>2010</td>
<td>2010</td>
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</tr>
<tr>
<td>Vietnam</td>
<td>2010</td>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brunei</td>
<td>2013</td>
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<tr>
<td>Cambodia</td>
<td>2013</td>
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<tr>
<td>Lao</td>
<td>2013</td>
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<tr>
<td>Myanmar</td>
<td>2013</td>
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<tr>
<td>India</td>
<td>2012</td>
<td>2012</td>
<td>2012</td>
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<td>Bangladesh</td>
<td>2012</td>
<td>2012</td>
<td>2012</td>
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<tr>
<td>Nepal</td>
<td>2012</td>
<td>2012</td>
<td>2012</td>
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<tr>
<td>Sri Lanka</td>
<td>2012</td>
<td>2012</td>
<td>2012</td>
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</tr>
</tbody>
</table>
4.2 Introduction & Background

Commodity Food Standards in Japan

**Food Sanitation Act**
- Standards for Foodstuffs and Additives
- 22 Specific Food Items
- Milk and Milk Products

**Health Promotion Act**
- Food with Health Claims
- Nutrient Function Claims
- Foods for Specified Health Uses (FOSHU)
- Food for Special Dietary Uses
- Nutrition Labeling

Ministry of Health, Labour and Welfare (MHLW)

**Name of the Standard**
- **Scope**
- **Description**
- Essential Composition and Quality Factor
- Food Additives
- Contaminants
- Hygiene
- Weights and Measures
- Labelling

**Methods of Analysis and Sampling**

Consumer Affairs Agency (CAA) covers Labelling Provision of FSA and JAS (New Food Labelling Act, 2013)

**JAS**
- Quality Labelling Standard for Processed Foods
- 48 Commodity Food Items

**Measurement Act**
Ministry of Economy, Trade and Industry

**Act Against Unjustifiable Premiums and Misleading Representations**
- Fair Competition Code
- 45 Food & Liquor Items
Consumer Affairs Agency (CAA)

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Philippines Commodity Standards

**Name of the Standard**
- **Scope**
- **Description**
- Essential Composition and Quality Factor
- Food Additives
- Contaminants
- Hygiene
- Weights and Measures
- Labelling

Philippine National Standards (SPS/FAQs)

Ministry of Health, Labour and Welfare (MHLW)

Indonesia Commodity Standards

**Name of the Standard**
- **Scope**
- **Description**
- Essential Composition and Quality Factor
- Food Additives
- Contaminants
- Hygiene
- Weights and Measures
- Labelling

Indonesian National Standards (SNI)

Specific Indonesia National Standards (SNI) Testing Methods

Thailand Commodity Standards

**Name of the Standard**
- **Scope**
- **Description**
- Essential Composition and Quality Factor
- Food Additives
- Contaminants
- Hygiene
- Weights and Measures
- Labelling

Thai Industrial Standards (TIS)

Ministry of Health, Labour and Welfare (MHLW)

Vietnam Commodity Standards

**Name of the Standard**
- **Scope**
- **Description**
- Essential Composition and Quality Factor
- Food Additives
- Contaminants
- Hygiene
- Weights and Measures
- Labelling

Vietnam National Standards (CVCN)

Specific Vietnam National Standards (CVCN)

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*1 Law Concerning Stanization and Proper Labelling of Agricultural and Forest Products

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

*3 New governmental organization started in September 2009
**Investigation of Regulations on Nutrition Labelling and Nutrition / Health Claims**

<table>
<thead>
<tr>
<th>Codex STANs/GLs on Nutrition Labelling/Health Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>General Standard for the Labelling of Prepackaged Foods</strong> (CODEX STAN 1-1985)</td>
</tr>
<tr>
<td>▪ Adopted 1985, Last amended 2010</td>
</tr>
<tr>
<td>▪ Scope, Definitions, General Principles, Mandatory Labelling, Additional Mandatory Requirements, Exemptions/Optional Labelling</td>
</tr>
<tr>
<td>• <strong>General Guidelines on Claims</strong> (CAC/GL 1-1979)</td>
</tr>
<tr>
<td>▪ Adopted 1979, Revised 1991, Amended 2009</td>
</tr>
<tr>
<td>▪ Scope &amp; General Principles, Definition, Prohibited/Misleading/Conditional Claims</td>
</tr>
<tr>
<td>• <strong>Guidelines on Nutrition Labelling</strong> (CAC/GL 2-1985)</td>
</tr>
<tr>
<td>▪ Scope, Definitions, Nutrient Declaration (NRVs), Legibility, Suppl. Nutrition Info.</td>
</tr>
<tr>
<td>• <strong>Guidelines for Use of Nutrition and Health Claims</strong> (CAC/GL 23-1997)</td>
</tr>
<tr>
<td>▪ 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</td>
</tr>
<tr>
<td>• <strong>Guidelines for Vitamin and Mineral Food Supplements</strong> (CAC/GL 55-2005)</td>
</tr>
<tr>
<td>▪ Adopted 2005; Preamble, Scope, Definitions, Composition, Packaging, Labelling</td>
</tr>
</tbody>
</table>
### Investigation Format for Nutrition Labelling Regulations-1.1

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

### Investigation Format for Nutrition Labelling Regulations-1.2

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Codex</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation of Nutrient Content</strong></td>
<td>Article 3.4</td>
<td>Per 100g/ml, Per package</td>
</tr>
<tr>
<td><em>(Expression per 100g/ml or serving or package)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Expression in Exact values or Ranges)</em></td>
<td></td>
<td>Exact values / Range</td>
</tr>
<tr>
<td><em>(Analysis or Calculation Basis)</em></td>
<td></td>
<td>Analysis Calculation basis allowed</td>
</tr>
<tr>
<td><strong>Use of Food Composition Table/ Database for Presentation of Nutrients</strong></td>
<td>Allowed</td>
<td>Japanese Food Composition Table</td>
</tr>
<tr>
<td><strong>Food Composition Table/ Database for Presentation of Nutrients</strong></td>
<td></td>
<td>Japanese Food Composition Table</td>
</tr>
<tr>
<td><strong>Calculation of Nutrients</strong> <em>(Energy/Protein/Carbohydrate/Fat)</em></td>
<td>Article 3.3</td>
<td>Identical to Codex Guidelines</td>
</tr>
<tr>
<td><strong>Tolerances and Compliances</strong> <em>(Tolerance Limits)</em></td>
<td>Article 3.5</td>
<td>Values plus/minus 20%, Specific tolerations defined for certain nutrients, such as V.C</td>
</tr>
<tr>
<td><strong>Specific Features of Presentation</strong> <em>(Format, %NRV Labelling)</em></td>
<td>Article 3.4.4, 4.2</td>
<td>Tabular format No %NRV labelling applied</td>
</tr>
<tr>
<td><em>(Front of Package Labelling, FOP)</em></td>
<td>Article 3.4.4, 4.2</td>
<td>No FOP labelling applied</td>
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</tbody>
</table>
### Investigation Format for Nutrition Labelling Regulations-1.3

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Codex</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrations/Compliances for Nutrition Labelling (Governing Authorities/Agencies)</td>
<td>Competent Authorities</td>
<td>Consumer Affairs Agency Local Governments</td>
</tr>
<tr>
<td>Inspections and Penalties</td>
<td></td>
<td>Periodical inspections Penalties defined</td>
</tr>
</tbody>
</table>

### Investigation Format for Nutrition Claims Regulations-2

<table>
<thead>
<tr>
<th>Nutrition Claims</th>
<th>Codex</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions (Nutrient Content/Comparative Claims)</td>
<td>CAC/GL 23-1997 Article 2</td>
<td>Identical to Codex Guidelines</td>
</tr>
<tr>
<td>Nutrient Content Claims</td>
<td>Article 5</td>
<td>Conditions defined</td>
</tr>
<tr>
<td>Nutrient Comparative Claims</td>
<td>Article 6</td>
<td>Conditions defined</td>
</tr>
<tr>
<td>Non-addition Claims (Non-addition of Sugars/Sodium Salts)</td>
<td>Article 7</td>
<td>Conditions defined</td>
</tr>
<tr>
<td>Administrations/Compliances for Nutrition Claims (Governing Authorities/ Agencies)</td>
<td>Competent Authorities</td>
<td>Consumer Affairs Agency Local Governments</td>
</tr>
<tr>
<td>Inspections and Penalties</td>
<td></td>
<td>Periodical Inspections Penalties defined</td>
</tr>
</tbody>
</table>
### Investigation Format for Health Claims Regulations - 3.1

<table>
<thead>
<tr>
<th>Health Claims</th>
<th>Codex</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions (Collective Name of Foods with Health Claims, if applicable)</td>
<td>Article 2</td>
<td>Foods with Health Claims (FHC)</td>
</tr>
<tr>
<td>Nutrient Function Claims (Collective Name of the Foods, if applicable)</td>
<td>Article 2</td>
<td>Foods with Nutrient Function Claims (FNFC)*, applicable to all prepackaged foods including Tablet or Capsule type of products</td>
</tr>
<tr>
<td>Other Function Claims (Collective Name of the Foods, if applicable)</td>
<td>Article 2</td>
<td>Foods for Specified Health Uses (FOSHU)**, applicable to all prepackaged foods</td>
</tr>
<tr>
<td>Reduction of Disease Risk Claims (Collective Name of Foods Applied)</td>
<td>Article 2</td>
<td>Foods for Specified Health Uses (FOSHU)***, applicable to all prepackaged foods</td>
</tr>
<tr>
<td>Types of Approval/Certification (Standardized/Pre-authorized Claims)</td>
<td>Article 8.1.2, 8.2</td>
<td>FNFC: Pre-authorized Claims/Self-determined</td>
</tr>
<tr>
<td>(Food Product/Constituent Specific Approval)</td>
<td>Article 8.1.2, 8.2</td>
<td>FOSHU: Product Specific</td>
</tr>
</tbody>
</table>

* 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 Health Claims Regulations - 3.2

<table>
<thead>
<tr>
<th>Health Claims</th>
<th>Codex</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Substantiation of Health Claims</td>
<td>Article 8, Annex Article 3.1</td>
<td>Documentation required****</td>
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<tr>
<td>Criteria for the Substantiation and/or Consideration of the Evidence</td>
<td>Annex Article 4</td>
<td>Documentation required****</td>
</tr>
<tr>
<td>Specific Safety Concerns</td>
<td>Annex Article 5</td>
<td>Not Specified</td>
</tr>
<tr>
<td>Re-evaluation</td>
<td>Annex Article 5</td>
<td>Not Specified</td>
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<tr>
<td>Product Quality Concerns (GMP, ISO, HACCP or Other Measures)</td>
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<td>Documentation required****</td>
</tr>
<tr>
<td>Adverse Event Reporting System (Mandatory/Voluntary)</td>
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<td>Not Specified</td>
</tr>
<tr>
<td>Administrations/Compliances for Health Claims (Governing Authorities/Agencies)</td>
<td>Competent Authorities</td>
<td>Consumer Affairs Agency Local Governments</td>
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<tr>
<td>Inspections and Penalties</td>
<td></td>
<td>Periodical Inspections Penalties defined</td>
</tr>
</tbody>
</table>

**** List of Documentation Required
### Investigation Format for Regulations for Supplements-3.3

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

### Investigation of Nutrition Labelling and Supplements

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Brunei</th>
<th>Cambodia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrient Declaration (Application: Mandatory or Voluntary)</td>
<td>Voluntary, except - Certain flour, bakery and cereal products; - Infant formulae; - Special purpose foods</td>
<td>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.</td>
</tr>
<tr>
<td>Listing of Nutrients (Nutrients, Order)</td>
<td>- Energy in kcal, KJ or both - Protein (g) - Fat (g) - Carbohydrate (g) - Other nutrients for which nutrition claims are made or any other nutrients to be declared</td>
<td>- Energy value, - Protein, - Available carbohydrate (i.e. dietary carbohydrate excluding dietary fibre), - Fat, - Saturated fat, - Sodium and - Total sugars; - The amount of any other nutrient for which a nutrition or health claim is made</td>
</tr>
<tr>
<td>Dietary, Food, and/or Health Supplements</td>
<td>Not specified</td>
<td>Not specified</td>
</tr>
</tbody>
</table>
### Investigation of Nutrition Labelling and Supplements

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Indonesia</th>
<th>Lao</th>
</tr>
</thead>
</table>
| **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

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Malaysia</th>
<th>Myanmar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutrient Declaration</strong> (Application: Mandatory or Voluntary)</td>
<td><strong>Mandatory</strong> for a wide variety of processed and packaged foods.</td>
<td><strong>Not specified (Voluntary)</strong></td>
</tr>
</tbody>
</table>
| **Listing of Nutrients** (Nutrients, Order) | - Energy
- Protein,
- Carbohydrate (excluding dietary fibre),
- Fat,
- Total sugars (for ready-to-drink beverages only),
- Nutrients as claimed | 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

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Philippines</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutrient Declaration (Application: Mandatory or Voluntary)</strong></td>
<td>Voluntary, Mandatory for - enriched and fortified foods - bottled water as “mineral water” - with nutrition and health claims</td>
<td>Voluntary, Mandatory when a nutrition claim is made, and for all prepackaged edible fats and oils (which is in the group of “Edible Fats and Oils” under Regulation 78 to 92 of Food Regulations) for sale or for use as an ingredient in the preparation of foods.</td>
</tr>
<tr>
<td><strong>Listing of Nutrients (Nutrients, Order)</strong></td>
<td>- Energy, - Protein, - Fat, - Carbohydrate (excluding dietary fibre)</td>
<td>- Energy, - Carbohydrate, - Protein, - Fat, - Nutrients as claimed - For products carrying the Healthier Choice Symbol, administered by Health Promotion Board, it is compulsory to declare 9 nutrients (energy, protein, fat, saturated fat, trans fat, cholesterol, carbohydrate, dietary fibre, sodium)</td>
</tr>
</tbody>
</table>

## Investigation of Supplements

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Philippines</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dietary, Food, and/or Health Supplements</strong></td>
<td>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.</td>
<td>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 <a href="http://www.hsa.gov.sg/publish/hsaportal/en/health_products_regulation/complementary_medicines/supplements.html">http://www.hsa.gov.sg/publish/hsaportal/en/health_products_regulation/complementary_medicines/supplements.html</a></td>
</tr>
</tbody>
</table>
### Investigation of Nutrition Labelling

<table>
<thead>
<tr>
<th>Nutrient Declaration (Application: Mandatory or Voluntary)</th>
<th>Thailand</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voluntary,</strong> 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)</td>
<td></td>
<td><strong>Voluntary,</strong> 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)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Listing of Nutrients (Nutrients, Order)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Fully format shall declare: - 4 core nutrients (E, C, P &amp; 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 &amp; F) - Sugar, - Sodium, - Nutrient as claimed</td>
<td>- Energy, - Carbohydrate, - Protein, - Fat</td>
<td></td>
</tr>
</tbody>
</table>

### Investigation of Supplements

<table>
<thead>
<tr>
<th>Nutrition Labelling</th>
<th>Thailand</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dietary, Food, and/or Health Supplements</strong></td>
<td>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.</td>
<td>Food Safety Law No. 55/2010/QH12 dated 17 Jun 2010.</td>
</tr>
</tbody>
</table>
Workshop and Roundtable Discussion on Food Safety and Standards
March 4-5, 2014, Yangon, Myanmar

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
## 4.2 Introduction & Background

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 2: Food Safety in ASEAN</th>
</tr>
</thead>
</table>
| 11:00 | Risk Assessment of Food Additives  
Prof. Sangpak Shinwai, Institute of Nutrition, Mahidol University, Thailand |
| 11:30 | Import & Export Control for Food Safety  
Ms. Kukku, Dangerous Goods and Food Safety Department, Ministry of Health, Myanmar |
| 12:00 | Food Safety and Quality Improvement for SMEs – Challenges and Thai Experience  
Mr. Chat Sathanon, Food and Drug Administration, Thailand |
| 12:30 | Lunch |

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 3: Communication Strategies for Food Safety and Nutrition Education</th>
</tr>
</thead>
</table>
| 2:00  | Risk Communication Strategy for Food Safety  
Mr. Idris Habibullah, National Agency of Drug and Food Control, Indonesia |
| 2:30  | Perspective of Food Labeling Systems in Japan  
Mr. Mihoko Aoki, Food Labeling Division, Consumer Affairs Agency (CAA), Japan |
| 3:00  | Discussion |
| 4:00  | 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
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.
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

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
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

<table>
<thead>
<tr>
<th>Type of Text</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code of Practice</td>
<td>49</td>
</tr>
<tr>
<td>Guidelines</td>
<td>70</td>
</tr>
<tr>
<td>MRLs</td>
<td>4</td>
</tr>
<tr>
<td>Standards</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>212</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
</tr>
</tbody>
</table>

Risk Analysis – the link
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
Addressing food safety and quality at global level

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)
4.3 Codex & Thailand

CAC in Geneva

CAC Session in Rome, July 2012
CAC Session in Rome, July 2012

Thailand’s Experience in Codex
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
- 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 celebrated Codex Golden Jubilee in Thailand on 28 May 2013
Codex Contact Point of Thailand

Ministry of Agriculture and Cooperatives

- DOA
- DOF
- DLD

National Bureau of Agricultural Commodity and Food Standards (ACFS)

- Office of Standards Policy
- Office of Standard Control
- Office of Standard Development
- Office of Standard Accreditation

CCP Thailand

Working Process for Codex Standard Setting of Thai CCP

National Agricultural Standard Committee

- Sub-committee on Policy and General Principles
- 4 Sub-committees on Commodity Standards
- 10 Sub-committees on General Subject Standards

Members of Sub-Committees
- Governments (Agriculture, Health, Trade, Consumer Protection)
- Academics/Experts
- Industries
- CCP Thailand as Secretariat
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

- 34th Codex Committee on Food Hygiene in 2001
- 28th CCNFSDU in 2006
- 20th CCFICS in 2013
- 7th, 11th, and 12th 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

Let Join Codex working together

Thanks for your attention...with a rose from Rome
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

ASEAN COMMUNITY 2015
ASEAN COMMUNITY 2015
ASEAN Political-Security Community (APSC)
ASEAN Economic Community (AEC)
ASEAN Socio-Cultural Community (ASCC)

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)

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.
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 of their food inspectors and laboratory analysts as a high priority.

---

**Codex Commodity (Food) Standards Format**

<table>
<thead>
<tr>
<th>Name of the Standard</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td></td>
</tr>
</tbody>
</table>

**Essential Composition and Quality Factor**

| Food Additives | still in the process of harmonization using GSFA template |
| Contaminant |
| Hygiene |
| Weights and Measures |
| Labelling |
| Methods of Analysis and Sampling |

**ACPFCS**

**ACPRFH**

**ACPRLPF**

ASEAN Food Reference Laboratory
ASEAN Food Testing Laboratory Committee
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

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.

Dedi Fardiaz Yangon, Myanmar, March 4, 2014
### Food Category System (GSFA, 2005)

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

### General Standard for Food Additives

<table>
<thead>
<tr>
<th>Food Cat. No.</th>
<th>Food Category</th>
<th>Max Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.1.2</td>
<td>Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td>01.7</td>
<td>Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td>02.1.3</td>
<td>Lard, tallow, fish oil, and other animal fats</td>
<td>GMP</td>
</tr>
<tr>
<td>03.0</td>
<td>Edible ices, including sherbet and sorbet</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td>04.1.2.4</td>
<td>Canned or bottled (pasteurized) fruit</td>
<td>200 mg/kg</td>
</tr>
<tr>
<td>04.1.2.5</td>
<td>Jams, jellies, marmelades</td>
<td>400 mg/kg</td>
</tr>
<tr>
<td>04.2.2.3</td>
<td>Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>04.2.2.4</td>
<td>Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds</td>
<td>200 mg/kg</td>
</tr>
<tr>
<td>05.3</td>
<td>Chewing gum</td>
<td>300 mg/kg</td>
</tr>
</tbody>
</table>
Welcome to the ASEAN Food Safety Standards Database

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

Food Additive: Fast Green FCF

<table>
<thead>
<tr>
<th>Food Cat. No.</th>
<th>Food Category</th>
<th>GSFA</th>
<th>B</th>
<th>C</th>
<th>I</th>
<th>L</th>
<th>M</th>
<th>P</th>
<th>S</th>
<th>T</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.1.2</td>
<td>Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)</td>
<td>100 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01.7</td>
<td>Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)</td>
<td>100 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02.1.3</td>
<td>Lard, tallow, fish oil, and other animal fats</td>
<td>GMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03.0</td>
<td>Edible ices, including sherbet and sorbet</td>
<td>100 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.1.2.4</td>
<td>Canned or bottled (pasteurized) fruit</td>
<td>200 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.1.2.5</td>
<td>Jams, jellies, marmelades</td>
<td>400 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.2.2.3</td>
<td>Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce</td>
<td>300 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05.3</td>
<td>Chewing gum</td>
<td>300 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Additives

Optional, select one

<table>
<thead>
<tr>
<th>Additives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid, glacial</td>
</tr>
<tr>
<td>Ammonium acetate</td>
</tr>
<tr>
<td>Ammonium carbonate</td>
</tr>
<tr>
<td>Ammonium dihydrogen phosphate</td>
</tr>
<tr>
<td>Ammonium hydrogen carbonate</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
</tr>
<tr>
<td>Ammonium lactate</td>
</tr>
<tr>
<td>Ascorbic acid, L-</td>
</tr>
<tr>
<td>Calcium acetate</td>
</tr>
<tr>
<td>Calcium carbonate</td>
</tr>
<tr>
<td>Calcium dihydrogen diphosphate</td>
</tr>
<tr>
<td>Calcium gluconate</td>
</tr>
<tr>
<td>Calcium hydrogen phosphate</td>
</tr>
<tr>
<td>Calcium hydroxide</td>
</tr>
<tr>
<td>Calcium lactate</td>
</tr>
<tr>
<td>Calcium malate, DL-</td>
</tr>
<tr>
<td>Calcium oxide</td>
</tr>
<tr>
<td>Calcium polyphosphate</td>
</tr>
<tr>
<td>Carnauba wax</td>
</tr>
<tr>
<td>Citric acid</td>
</tr>
<tr>
<td>Diammonium hydrogen phosphate</td>
</tr>
<tr>
<td>Dicalcium diphosphate</td>
</tr>
<tr>
<td>Dipotassium dihydrogen phosphate</td>
</tr>
<tr>
<td>Dipotassium tartrate</td>
</tr>
<tr>
<td>Disodium dihydrogen phosphate</td>
</tr>
</tbody>
</table>

## Food Categories

Optional, select one

<table>
<thead>
<tr>
<th>Food Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.0.0.0 - DAIRY PRODUCTS AND ANALOGUES,</td>
</tr>
<tr>
<td>01.1.0.0 - Milk and dairy-based drinks</td>
</tr>
<tr>
<td>01.1.1.0 - MILK AND BUTTERMILK (PLAIN)</td>
</tr>
<tr>
<td>01.1.1.1 - Milk (plain) 01.1.1.2 - Buttermilk (plain)</td>
</tr>
<tr>
<td>01.2.0.0 - FERMENTED MILKS (PLAIN)</td>
</tr>
<tr>
<td>01.2.1.0 - Fermented milks (plain), not heat-treated</td>
</tr>
<tr>
<td>01.2.1.1 - Fermented milks (plain), heat-treated</td>
</tr>
<tr>
<td>01.2.2.0 - RENNETED MILK (PLAIN)</td>
</tr>
<tr>
<td>01.3.0.0 - Condensed milk and analogues (plain)</td>
</tr>
<tr>
<td>01.3.1.0 - CONDENSED MILK (PLAIN)</td>
</tr>
<tr>
<td>01.3.2.0 - BEVERAGE WHITENERS</td>
</tr>
<tr>
<td>01.4.0.0 - Cream (plain) and the like</td>
</tr>
<tr>
<td>01.4.1.0 - PASTEURIZED CREAM (PLAIN)</td>
</tr>
<tr>
<td>01.4.2.0 - STERILIZED AND UHT CREAMS,</td>
</tr>
</tbody>
</table>

## Countries

Optional, select one

<table>
<thead>
<tr>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei</td>
</tr>
<tr>
<td>Cambodia</td>
</tr>
<tr>
<td>Indonesia</td>
</tr>
<tr>
<td>Lao PDR</td>
</tr>
<tr>
<td>Malaysia</td>
</tr>
<tr>
<td>Myanmar</td>
</tr>
<tr>
<td>Philippines</td>
</tr>
<tr>
<td>Singapore</td>
</tr>
<tr>
<td>Thailand</td>
</tr>
<tr>
<td>Vietnam</td>
</tr>
</tbody>
</table>

## Status of Harmonization?

Search

### 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 8th ACCSQ PFPWG Meeting (Palembang, Indonesia, 21-22 August 2008)
Risk Assessment

Choices:
- Conducted at national level by AMS
- Conducted simultaneously at regional level by AMSs with supports from International Agencies

Filling the FSS Harmonization Template (Modified GSFA Format)

Evaluation of FSS Similarities and Differences

FSS harmonized among AMSs

FSS harmonized among AMSs and with Codex Standards

Time given to AMSs to review their FSS

FSS unharmonized among AMSs

FSS Harmonization Approach in the ASEAN

Key Challenges of Food Safety in ASEAN Countries

Supply of agricultural inputs (fertilizers, pesticides, animal feeding stuffs, veterinary drugs, etc.)

Primary production (farmers, fisherfolk, fish farmers, etc.)

Primary food processing (on-farm, dairies, abattoirs, grain mills, etc.)

Secondary food processing (fermenting, baking, canning, freezing, drying, etc.)

Food distribution (national/international, import/export)

Food retailing (shops, supermarkets, etc.)

Food catering (restaurants, street foods, hospitals, schools, etc.)

Domestic food preparation

How to improve hygienic practices in the whole food supply chain?

How to eliminate the misused of prohibited chemicals in food?

How to raise food safety awareness of food producers and consumers?
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 fish.
- 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.

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

**Examples:**

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

**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

Photos taken from www.flickr.com
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?
Risk Assessment of Food Additives

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

Risk Analysis Framework:
- Risk Assessment: Science based
- Risk Management: Policy based
- Risk Communication: Interactive exchange of information and opinions concerning risks
RISK ANALYSIS PRINCIPLES APPLIED BY THE CODEX COMMITTEE ON FOOD ADDITIVES
(From procedural 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).

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.

• 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.
“Tools” for Developing the GSFA Tables

- Food Category System
- Collection of Worksheet Data by Food Additive Type
- Technological Justification
- “Compression” Of Worksheets
- Intake Assessment
- Prioritized Additives
- QC Work Group

4.5 Risk Assessment

Components of Risk Analysis

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

Risk Communication
- Interactive and ongoing exchange of information and opinions

Risk Management
- Risk Evaluation
- Option Assessment
- Option Implementation
- Monitoring & Review
Codex Alimentarius Commission
CODEX PROCESS

Relationship of RA and RM

JECFA → ADI, PTWI

CCFA → Food Additives → MLs
CCCF → Contaminants → MRLs

CCRVDF → Vet. Drug Res. → MRLs

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
Risk Analysis Process

- **Risk Characterization**
  
  \[ \text{Risk} = \frac{\text{Intake}}{\text{ADI}} \]

- Risk Management

- Risk Communication

---

4.5 Risk Assessment

**Risk Assessment**

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

*Science based*
1. Hazard Identification

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

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)

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 hazard that is acceptable as;

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

\[ \text{ADI หรือ RfD} = \frac{\text{NOAEL}}{\text{Safety factor}} \]

(Uncertainty Factors)

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 adverse effect

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
- Genotoxic

Use ALARA
(As Low As Reasonably Achievable)

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

Methods for collecting food consumption data

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Food diary, weighed intake</td>
</tr>
<tr>
<td></td>
<td>Duplicate portion studies</td>
</tr>
<tr>
<td></td>
<td>Dietary recall</td>
</tr>
<tr>
<td></td>
<td>Food frequency</td>
</tr>
<tr>
<td>Population</td>
<td>Food disappearance method</td>
</tr>
<tr>
<td></td>
<td>- household</td>
</tr>
<tr>
<td></td>
<td>- national</td>
</tr>
</tbody>
</table>
SELECTION OF METHODS FOR FOOD CONSUMPTION DATA

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

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.
• 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

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) \times (food Intake)

Comparison between exposure and reference dose (ADI, RfD)

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

Safe = \text{High Risk when Risk} > 1
\text{Low Risk when Risk} < 1

Decision on the ADI Assignment

1. Threshold level is available
   an “ADI” is assigned
2. Low level of risk or no health concern
   “ADI not specified” is assigned
3. No threshold is available
   recommend the additive should not be used
“Tools” for Developing the GSFA Tables

Food Category System
Collection of Worksheet Data by Food Additive Type
Technological Justification
GSFA
“Compression” Of Worksheets
Intake Assessment
Prioritized Additives
QC Work Group

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

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

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 of Sweeteners

<table>
<thead>
<tr>
<th>Sweeteners</th>
<th>ADI (mg/kg bw/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspartame</td>
<td>0 – 40</td>
</tr>
<tr>
<td>Acesulfame K</td>
<td>0 – 15</td>
</tr>
<tr>
<td>Sucralose</td>
<td>0 – 15</td>
</tr>
<tr>
<td>Saccharin</td>
<td>0 – 5</td>
</tr>
</tbody>
</table>

Food sweeteners not included in notification No. 281:

- Aspartame
- Acesulfame K
- Sucralose
- Saccharin

### Provisions of Food Color and Sweeter Uses

#### Examples

<table>
<thead>
<tr>
<th>Food Category Codex* (FFQ++)</th>
<th>Maximum Use Level (ML) of Allura Red (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Codex</td>
</tr>
<tr>
<td></td>
<td>ML</td>
</tr>
<tr>
<td>01.6.4.2 Ed cheese</td>
<td>200 step 6</td>
</tr>
<tr>
<td>09.3.3 Fish egg Semiprocessed</td>
<td>500 step 6</td>
</tr>
<tr>
<td>14.1.4.1 Carbonated drinks</td>
<td>100 step 6</td>
</tr>
</tbody>
</table>

04/03/2014 Workshop, Food Safety and Standards, Yangon, Myanmar
### Exposure assessment of sweeteners

**Example: sweeteners**

<table>
<thead>
<tr>
<th>Additive type</th>
<th>ML (mg/kg)</th>
<th>% of ADI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-5.9 yr</td>
<td>6-18.9 yr</td>
</tr>
<tr>
<td>Acesulfame K ADI=0-15 mg/kg bw/day</td>
<td>Codex (adopt)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Codex(all steps)</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>First Consideration</td>
<td>102</td>
</tr>
<tr>
<td>Aspartame ADI=0-40 mg/kg bw/day</td>
<td>Codex (adopt)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Codex(all steps)</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>First Consideration</td>
<td>94</td>
</tr>
<tr>
<td>Saccharin ADI=0-5 mg/kg bw/day</td>
<td>Codex (adopt)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Codex(all steps)</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>First Consideration</td>
<td>227</td>
</tr>
<tr>
<td>Sucralose ADI=0-15 mg/kg bw/day</td>
<td>Codex (adopt)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Codex(all steps)</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>First Consideration</td>
<td>80</td>
</tr>
</tbody>
</table>
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.

Thank You for your attention
ขอบคุณครับ
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
Recent developments in Japan’s food safety administration

**<Main events, etc.>**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1996</td>
<td>Following outbreak of BSE in the UK, imports of British beef and processed beef foods were prohibited.</td>
</tr>
<tr>
<td>May 1996</td>
<td>Major outbreak of food poisoning caused by O-157.</td>
</tr>
<tr>
<td>June 2000</td>
<td>Snow Brand Milk Products Co. food poisoning case</td>
</tr>
<tr>
<td>June 2001</td>
<td>Confirmation of the first BSE infected cow in Japan</td>
</tr>
<tr>
<td>February 2002</td>
<td>Detection of residual agricultural chemicals exceeding standard in Chinese frozen spinach</td>
</tr>
<tr>
<td>December 2003</td>
<td>Confirmation of first BSE infected cow in the US, and prohibition of US imports</td>
</tr>
<tr>
<td>June 2007</td>
<td>The Meat Hope Co. false labeling incident</td>
</tr>
<tr>
<td>December 2007</td>
<td>Food poisoning caused by Chinese frozen gyoza</td>
</tr>
<tr>
<td>September 2008</td>
<td>Tainted rice distribution incident</td>
</tr>
<tr>
<td>March 2011</td>
<td>TEPCO Fukushima Daiichi Nuclear Power Station accident</td>
</tr>
<tr>
<td>April 2011</td>
<td>Food poisoning from raw meat</td>
</tr>
</tbody>
</table>

**<Administrative response>**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1996</td>
<td>Partial revision of the Food Sanitation Act (introduction of HACCP, etc.)</td>
</tr>
<tr>
<td>October 2001</td>
<td>Total ban on bone-and-meat feed (MAFF)</td>
</tr>
<tr>
<td>June 2002</td>
<td>Start of 100% inspection of beef cattle</td>
</tr>
<tr>
<td>August 2002</td>
<td>Enactment of the BSE Special Countermeasures Law</td>
</tr>
<tr>
<td>May 2003</td>
<td>Partial revision of the Food Sanitation Act (creation of system for blanket prohibition of imports and sales)</td>
</tr>
<tr>
<td>May 2003</td>
<td>Enactment of the Food Safety Basic Law</td>
</tr>
<tr>
<td>July 2003</td>
<td>Launch of the Food Safety Commission</td>
</tr>
<tr>
<td>September 2009</td>
<td>Launch of the Consumer Agency</td>
</tr>
<tr>
<td>March 2011</td>
<td>Response to radioactive material in food</td>
</tr>
<tr>
<td>October 2011</td>
<td>Standards set for meat for raw consumption</td>
</tr>
</tbody>
</table>
Disclosure of food safety related information
Opportunities for the consumers to express their views

Risk Communication

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

Risk Management
MHLW
- Sets criteria for inclusion in foods.
- Watches over conformity to the criteria.
  Food Sanitation Act, etc.

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.

Role sharing of Food Safety (Risk Analysis)
- 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 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

Ministry of Health, Labour and Welfare
- Pharmaceutical and Food Safety Bureau
  Department of Food Safety
    - Policy Planning and Communication Division (15)
      - Office of International Food Safety (4)
        - Office of Quarantine Station Administration (14)
    - Standards and Evaluation Division (21)
      - Office of Health Policy on Newly Developed Food (5)
    - Inspection and Safety Division (15)
      - Office of Import Food Safety (14)
        - Office of Foodborne Disease Surveillance (5)

(Number of the officials) As of Nov. 2013
4.6 Import & Export Control in Japan

**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 (Article 28)
Responsibility of National and Local Governments

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

※Food Sanitation Act
Responsibility of Local Governments

- 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

Administrative Structure for Food Safety

Food Safety Commission (Risk assessment)

MAFF (Risk management)

Consumer Agency (Risk Communication)

Consumer Commission

MHLW (Risk management)

Mutual collaboration

Local

Prefectures (47)

Cities with public health centers (68)

Special wards (23)

Public Health Centers (495)

Local Bureaus of Health and Welfare (7)

Surveillance, administrative guidance

Quarantine stations (31)

Approval, inspection of HACCP

Registration, surveillance and guidance

Imported foods, etc.

Food business operators

Consumers

Safe food product

*As of April, 2011

4.6 Import & Export Control in Japan
4.6 Import & Export Control in Japan

**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

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 → Gather opinions of the public and residents
The progress of the implementation of the plan → 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
4.6 Import & Export Control in Japan

**Procedure for the Designation of Food Additives**

**Operation procedure**

- **Applicant**
  - Apply for designation
  - Document on food additives

- **MHLW (Ministry of Health, Labour and Welfare)**
  - Officials
  - Request

- **FSC (Expert Committee on Food Additives)**
  - Expert Committee on Food Additives
  - Results

- **MHLW (Advisory council)**
  - Committee on Food Additives

**Legal procedure**

- Amendment to Notification - Food additives

---

**Process of the Designation of Food Additives**

**Risk Assessment**

- **Food Safety Commission**
  - Assess toxicity data
    - Chronic toxicity study
    - Carcinogenicity study
    - Teratogenicity study, etc.
  - ADI (draft)
  - Public comments
  - Establish ADI

**Ministry of Health, Labor and Welfare**

- Confirm application
  - Applicant
  - Examine documents
  - Effectiveness and standards
  - Request for risk assessment

**Risk Management**

- Review ADI
  - Examine standards
  - WTO Notification
  - Public comments

- Consultation

**Food Sanitation Council**

- Draft Ministerial Ordinance
  - Report
- Revise Ministerial Ordinance

---

**Consumer Affairs Agency**

- Consultation
  - Response
4.6 Import & Export Control in Japan

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

- Risk Evaluation
  - Preparing documents and data for expert examination
  - Food Additives Expert Committee
  - Food Safety Commission
  - Public Comments
  - Notification of Evaluation Results

Open and scientific discussion
- Preparing for additional data necessary for the evaluation
- Pharmaceutical Affairs and Food Sanitation Council
- Review of setting standard and specification for Food Additives
- Consultation on draft of notice
- Consumer Affairs Agency

Risk Management
- Pre Examination
  - Request for risk evaluation by the FSC
  - Review by experts

![Diagram showing the process](http://www.mhlw.go.jp/seisakunitsuite/bunya/kenkou/shokuhin/shokuhin/120912-1.pdf)

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.)*

![Graph showing the number and weight of food imports](image-url)
Outline of the Import Inspection System

Comprehensive Import prohibition

82,448 cases

High Probability of a violation

Inspection orders

220,000 cases

82,448 cases

82,448 cases

57,350 cases*

Strengthening monitoring inspections

57,350 cases*

95,301 cases

Monitoring inspections

Guiding inspections, etc.

95,301 cases

* The number of cases of monitoring inspections is 93,066 in total. (Some overlap regarding the inspection items.)

4.6 Import & Export Control in Japan

Inspection Orders by the Minister of Health, Labour and Welfare

Emergence of health hazards

Caused by the same producing country, manufacturer, or food processing company regarding the same imported food (Example: E. coli O-157, Listeria, Aflatoxin, etc.)

Violations

Order inspection immediately

Danger of health hazards

Pesticide residue
Veterinary medicine

Increase the frequency of monitoring inspections

Violation

Order inspection if violation is assumed highly probable

Dropping inspection orders

The exporting country has established measures against a recurrence. It is confirmed that the violated food is not going to be imported again.
4.6 Import & Export Control in Japan

Cancellation Requirements

Inspection order

- MHLW has confirmed the effectiveness of the preventive measures taken by the exporting country.
- No violations for two years (e.g. residual agricultural chemicals)
- No violations in 300 inspections for one year (e.g. residual agricultural chemicals)

Reinforcement of monitoring inspection (30%)

- No violations for one year
- No violations in 60 inspections

Normal monitoring inspection

Recall System of Imported Foods

- Food Safety Commission
- National Institute of Health Sciences
- Website of each country
- Alert information of international organization etc.

Obtaining information

Check the status of importation

No Records

Continuation of information gathering

Presence

Confirmation of the presence or absence of relevant lot for importers and government of export countries

Surveillance requesting of recall, etc. for municipalities

Absence

Continuation of information gathering

Have Records

Reinforcement of import surveillance

Contact if necessary

Investigation and monitoring by municipalities
4.6 Import & Export Control in Japan

Recall system of violated foods in Japan

Individual prefectures

Detection of violation
- Inspections at individual prefectures
- Food poisoning

Notification

Individual prefectures having jurisdiction over the manufacturer

Publish on the website

Surveillance

Report

If necessary, Recall order, etc.

Manufacture

Publish on the website

Other prefecture

Information sharing regarding food poisoning outbreak

MAFF

CAA

Audit related to Food Safety

Ministry of Health, Labour and Welfare

Exporting countries

Regional bureaus of Health and Welfare

Approved HACCP Facilities

Food Exporting Facilities (for EU, etc.)

Other Food Business Facilities

Registered Inspection Organization

Local governments
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)

◆ **Initiatives based on mutual collaboration among diverse stakeholders, including the national government, municipalities, food-related business operators and consumers.**
  → Easy-to-understand communication, interactive opinion exchange

◆ **Sanitation control based on laws (e.g., the Food Sanitation Act)**
  → Scientific references, planned monitoring and guidance (PDCA), recall instructions, etc.
Food safety and quality improvement for SMEs – Challenges and Thai Experience

Chitra Settaudom
Thai Food and Drug Administration

Food Control System
in Thailand
4.7 Food safety & Quality Improvement in Thailand

Road Map of Food Safety

- Importation
  - Quarantine inspection
  - Veterinary medicines
  - Pharmaceutical products
  - Agricultural chemicals & products
- Production-Farm
  - Registration & certification of Standardized farms
  - Monitoring the Use of production materials
  - Monitoring the Use of chemicals, veterinary medicines, and pharmaceutical products
- Processing
  - Inspection and certification of manufacturing sites of food for consumption in Thailand
  - Surveillance and monitoring the use of chemicals, veterinary medicines, and pharmaceutical products
- Distribution
  - Monitoring 6 contaminants in fresh foods
  - Monitoring effort of FDA logo in food labelling of processed foods
  - Inspection at food distribution sites - Fresh markets - Supermarkets - Restaurants/ street food/ food stalls
  - Public relations concerning food safety logos
  - Participation of community and private sector in food safety control
- Consumer
  - Consumer empowerment through school children & volunteers
  - Media attention

Ministry of Public Health

Office of Permanent Secretary
- Provincial Health Office
- Bureau of Import Export, Div. of Regional & Rural Consumer Protection
- Bureau of Food Safety & Quality
- Regional Center

FDA
- Bureau Of Food
- Div.of Nutrition

DMSc
- Division of Food Sanitation
- Division of Food Nutrition

Dep. of Health

Infrastructure of Food Control Within Ministry of Public Health

FDA = Food and Drug Administration
DMSc = Department of Medical Science
Roles and Responsibility of Thai FDA

Health Products include; Foods, Drugs, Psychotropic Substances, Narcotics, Medical devices, Volatile Substances, Cosmetics and Hazardous Substances

1. Legislate Notifications of Ministry of Public Health

2. Pre-Marketing Control

3. Post-Marketing Control

4. Surveillance

5. Support & Cooperate Technical Knowledge

6. Disseminate Knowledge & Develop Consumer Behavior

Key Player under Thai Food Act 1979

Minister

Notifications

Raw Materials/Products

Process/Premises

Advertisements

- Safety
- Quality
- Benefits

Producer/Importer

Roles:
- Submit for Production License
- Comply with Notifications
- Cooperate with Officers

Rights:
- Receive Production License

FDA

Authority:
- License Approval
- Withdraw/Prohibit
- Appoint Officers

Officers

Roles:
- Control/Monitor
- Inspect

Rights:
- Cooperate with producer/importer
- Inspect Premises/Documents/Products

Punishment

- Withdraw/Prohibit/Suspension (in accordance with the criteria)
- Imprison/ fine (in accordance with the criteria)
4.7 Food safety & Quality Improvement in Thailand

Food Safety Management based on Risk

**Conventional Foods**
- Vegetable
- Fruit
- Fish
- Meat

**Novel foods**
- Herbs
- Extracted substance
- Food Additive
- GMO Foods

According to the Food Act (1979), food products are classified into 4 groups

**High Risk Level**

**Group 1**
- Specifically controlled foods
- Ex. - Canned Food
- Infant Milk/Food
- Food Additives
- Milk and Milk Product
- 14 Items

**Group 2**
- Standardized Food
- Ex. - Fat and Oil
- Tea
- Honey
- Coffee
- 30 Items

**Group 3**
- Labeled Food
- Ex. - Meat Product
- Chewing Gum and Candy
- Ready to Eat Food
- 12 Items

**Group 4**
- Other than Group 1-3

**Low Risk Level**

**Processing**
- Raw Material
- GMP
  - Reduce Microbial
  - Food Additive
  - Specific Technology

**Control Measure**
- GAP
- Safety Assessment

**Product**
- Product Standard
- Labeling
- Nutrition Labeling
- Package
- Serving size
- Advertisement

**Raw Material**
- Unsafe Not Allowed
- Safety

**Processing**
- Toxicity
- Mutagenicity
- Allergenicity

**Control Measure**
- GAP
- Safety Assessment
**Legislation of Food Standard**


**FDA**

- Safety
- Quality
- Nutrition
- Benefit

**Consumer Protection**
- Unsafe foods
- Substandard foods
- Deceptive foods

**Facilitate Trade**
- Promote exportation

---

**RISK ANALYSIS**

- **Risk Assessment**
  - Hazard Identification
  - Hazard Characterization
    (animal study)
  - Exposure Assessment
  - Risk Characterization

- **Risk Management**
  - Risk evaluation
  - Identification of option
  - Choice of option
  - Implementation
  - Monitoring
  - Reviewing

- **Risk Communication**
  - Risk Assessor
  - Risk Manager
  - Consumers
  - Industries

Science based
Safety and
Technology Justification

Policy based
4.7 Food safety & Quality Improvement in Thailand

**Vertical (Products)**
- Cow’s milk
- Vinegar
- Fats and Oils
- Cheeses
- Sauces
- Chewing gums and candies
- Ice-cream
- Mineral water
- Coffee
- Dietary Supplementary
- Jam, Jelly, and marmalade
- Supplementary food for infants and young children

**Horizontal (Every product)**
- Microorganism
- Mycotoxin
- Food Additives
- Standard of contaminants
- Pesticides Residues
- Veterinary Drugs Residues
- Packages
- Labeling
- GMP
- Nutrition Labeling

---

**Thai FDA Food Safety Control System**

- Notification of MOPH
- Specification

**Approval**
- Raw Material
- Premise
- Product
- Advertisement

**Producer**
- Produce/Import/Distribute
- Apply the Notification of MOPH to Food Producing

**Surveillance**
- Raw Material
- Premise
- Product
- Advertisement

**Consumer expectation**
- Safety
- Benefit
- Wholesomeness

Thai Food and Drug Administration
Food Categories and How to Apply for Product Approval

<table>
<thead>
<tr>
<th>Categories</th>
<th>Domestic/Imported Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Specific Controlled Food</td>
<td>1. Apply for Manufacturing/Importation License</td>
</tr>
<tr>
<td></td>
<td>2. Register for Approval Number</td>
</tr>
<tr>
<td>B. Standardized Food</td>
<td>1. Apply for Manufacturing/Importation License</td>
</tr>
<tr>
<td></td>
<td>2. Notify for Approval Number*</td>
</tr>
<tr>
<td>C. Labeled Food</td>
<td>1.1. Apply for manufacturing/Importation License</td>
</tr>
<tr>
<td></td>
<td>1.2. Notify for Approval Number*</td>
</tr>
<tr>
<td></td>
<td>2. Non-notify standard labeled food</td>
</tr>
<tr>
<td></td>
<td>2.1 Apply for Manufacturing/Importation License</td>
</tr>
<tr>
<td></td>
<td>2.2 --</td>
</tr>
</tbody>
</table>

Food Serial Number

1. The province in which the food production/importation premises are located
2. Status of food production/importation premises and approve authority:
   1 = Food production premises which are approved by Thai FDA
   2 = Food importation premises which are approved by Thai FDA
   3 = Food production premises which are approved by provincial authority
   4 = Food importation premises which are approved by provincial authority
3. Number of food production/importation & year in B.E. which are approved
   • First three digits represent approved food production/importation premises number
   • Last two digits represent two digits of the year approved in B.E.
4. Approval office that issues the serial number as follows:
   1 = Foods which approved food serial number from Thai FDA
   2 = Foods which approved food serial number from Thai FDA
5. Sequence no. of food that produced by each food production/importation premises
   • For example, 0001 represents item no.1, 0091 represents item no.99, 0110 represents item no.110

XX-X-XXXXX-Y-YYYY
4.7 Food safety & Quality Improvement in Thailand

Food safety and quality improvement for SMEs – Challenges and Thai Experience

Manufacturing Procedures, Production Equipment and Appliance, and Food Storage of Prepackaged Processed Foods
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, leading to market-driven 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”
According to the Food Act (1979), food products are classified into 4 groups:

- **Group 1: Specifically controlled foods**
  - Ex. - Canned Food
  - Infant Milk/Food
  - Food Additives
  - Milk and Milk Product (14 Items)

- **Group 2: Standardized Food**
  - Ex. - Fat and Oil
  - Tea
  - Honey
  - Coffee (30 Items)

- **Group 3: Labeled Food**
  - Ex. - Meat Product
  - Chewing Gum and Candy
  - Ready to Eat Food (12 Items)

- **Group 4: Other than Group 1-3**

---

**Goal: Improve quality of Thai food products with the primary GMP**

- Reduce the risk of foodborne diseases/illness
- Improve the standards and quality of food premises/factory
- Strengthen the measures of overseeing food products, both imported and exported
- Prepare for the opening of the ASEAN Community
- Enhance the ability of SMEs to improve their potential for moving forward to international

**Thai Food to World Kitchen**

- **GMP/HACCP**
  - **GROUP 1**
  - **GROUP 2-3**
  - **GROUP 4**
    - Household and Community Production
Specific Controlled Food (group 1)

- 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 product
REGISTER FOR APPROVAL

Prescribed Food to have Quality or Standard (group 2)

- 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
- Butter Oil
- Ghee
- Vinegar
- Palm Oil
- Butter
- Margarine
- Fortified Rice
- Mineral Water
- Quicklime Soaked Egg
- Electrolyte Drink
- Drinking Water
- Herbal Tea

Horizontal standard (food additive, pesticide residue, labeling ... )
Vertical standard in each product
NOTIFY FOR APPROVAL NUMBER
Prescribed Food to have Label (group 3)

- 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 Equipment, 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 food storage of processed food products.
4.7 Food safety & Quality Improvement in Thailand

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
- **suitable size**
- 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 be 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 quality and 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

- must not be suffering from any kind of communicable disease
- wear clean and suitable clothes, hat, hair netting
- wash their hand
- training for workers

Mandatory for food hygiene

- Location and building
- 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

Collaboration between academia and regulators

- Knowledge
- Budget
- Public relations

Output
- New products (1 product/centre)
- Learning Centre with basic equipment and tools needed
- Standard Operating Procedure (SOP)
The universities and provinces participated in learning centre development programme

Learning Centre in 12 zones (24 places)

Zone 1
Chiangmai University
Chiangmai, Mae Hongson

Zone 2
Sukhothai, Petchaboon

Zone 3
Nakon Sawan, Pichit

Zone 4
Ayutthaya, Pathumthani

Zone 5
Samutsakon, Rat Chaburi

Zone 6
Khonkaen University

Zone 7
Khonkaen, Ubon, Ubon Ratchathani

Zone 8
Loei, Nakonphanom

Zone 9
Nakornratchasima, Buriram

Zone 10
Ubon Ratchathani, Yasothon

Zone 11
Suratthani, Nakon Si Thammarat

Zone 12
Trang, Satul

Kasettsart University

Technical Support

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

*Output*: Food safety situation of the country.

*Working area*: 26 center (in 5 regions of Thailand)
4.7 Food safety & Quality Improvement in Thailand

Outcome

Enhance the Strength
- Improve product safety and quality
- Develop new products
- Implement standards

Eliminate the weakness
- Value added and increase sales volume
- Acceptability and Sustainability

Reduce obstacles
Create opportunity
- Create a market niche
- Increase in communities' incomes

Thailand will become “World Kitchen”

Stakeholders

Single Policy

Consumers
- Ministry of Public Health
- Ministry of Agriculture and Cooperatives

Producers

Sustainable Food Safety
“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

Thank you
For your attention
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
Yangon, Myanmar, 4-5 March 2014

PRESENTATION AGENDA

Introduction
Risk Analysis and Communication
Examples of Food Safety Issues
Conclusions
Food safety is an essential part of food security

Indonesian Food Law No 18/2012 Article 1: Food Security is the fulfillment of Food for the state up to the individuals, that is reflected by Food availability that is sufficient, both in quantity and quality, safe, diverse, nutritious, prevalent and affordable as well as not conflicting with religion, belief and culture, to live healthy, active and productive in a sustainable manner.
4.8 Risk Communication Strategy

SAFE FOOD: CONTAMINATION FREE

<table>
<thead>
<tr>
<th>Microbiological Hazard</th>
<th>Chemical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Microbiological Hazard Icon" /></td>
<td><img src="image2.png" alt="Chemical Hazard Icon" /></td>
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<thead>
<tr>
<th>Physical Hazard</th>
<th>Free from Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Physical Hazard Icon" /></td>
<td><img src="image4.png" alt="Free from Hazards Icon" /></td>
</tr>
</tbody>
</table>

INDONESIAN FOOD LAW NO 18/2012, Article 68:

1. Government and Regional Government guarantee implementation of Food Safety on every Food chain in an integrated manner.

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 risk based analysis. The risk analysis is a decision-making process is done in a systematic and transparent basis on scientific information covering risk management, risk assessment, and risk communitaion
“Risk analysis must be the foundation on which food control policy and consumer protection measures are based”

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.

• **Risk communication** - the interactive exchange of information and opinions throughout the risk analysis process 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.

SCHEMATIC CONCEPT OF RISK ANALYSIS
4.8 Risk Communication Strategy

**Risk Communicators’ important roles**

- Risk assessment by experts
- Risk evaluation by risk communicator
- Risk evaluation by society

**HAZARDS**

**INFORMATION**

**RESPONDING AND UNDERSTANDING**

---

**PRESENTATION AGENDA**

- Introduction
- Risk Analysis and Communication
- Examples of Food Safety Issues
- Conclusions
4.8 Risk Communication Strategy

Challenges:
1. 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

EXAMPLES OF FOOD SAFETY ISSUES

- Illegal Foods
- Instant Noodles
- Packaged Drinking Water
- Food Consumed by School Children
4.8 Risk Communication Strategy

**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

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

<table>
<thead>
<tr>
<th>PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Complaint from domestic producers</td>
</tr>
<tr>
<td>2 Public concern</td>
</tr>
<tr>
<td>3 Complaint from several ministries</td>
</tr>
<tr>
<td>4 Competitiveness of domestic products decline</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAUSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Different perception among stakeholders</td>
</tr>
<tr>
<td>• Missed communication and less coordination with stakeholders</td>
</tr>
<tr>
<td>• Lacking partnership with law authorities</td>
</tr>
<tr>
<td>• Weak Sanction</td>
</tr>
</tbody>
</table>
## 4.8 Risk Communication Strategy

### INSTANT NOODLE

<table>
<thead>
<tr>
<th>PROBLEMS</th>
<th>CAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Difference in food standards</td>
<td>• Different perception among public and government/scientist about hazard and risk</td>
</tr>
<tr>
<td>2 Public concern</td>
<td>• Lack of risk communication</td>
</tr>
<tr>
<td>3 Food authority reputation</td>
<td>• Sampling and analysis</td>
</tr>
<tr>
<td>4 Producers concern</td>
<td>• Limited of laboratory capacity</td>
</tr>
<tr>
<td>5 Indonesian food reputation in international level</td>
<td></td>
</tr>
</tbody>
</table>

**SOLUTIONS**

- SOP of Crisis Management is needed
- Improving sampling and analysis
- Improving laboratory capacity
- **Strengthen risk communication including consumer education**
- Strengthen coordination with exporter

### PACKAGED DRINKING WATER

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Consumer association findings (YLKI)</td>
<td>• <strong>Lack of communication</strong> with consumer association</td>
</tr>
<tr>
<td>2 Public concern</td>
<td>• <strong>Lack of risk communication</strong></td>
</tr>
<tr>
<td>3 Producers concern</td>
<td>• <strong>Weak coordination</strong> among stakeholder on producers education and food control</td>
</tr>
<tr>
<td>4 NADFC reputation</td>
<td></td>
</tr>
</tbody>
</table>

**SOLUTIONS**

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

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

- FCSC plays important roles as **one of important nutrient sources** 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**

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

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

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

National Movement of FSCS
4.8 Risk Communication Strategy

ROADMAP FCSC 2011-2014 AND THE ACHIEVEMENTS UNTIL 2013

Target: New 4500 PS (+ PS 9000 escort)  
KPI: 80% FSCSC meets the requirements  
Achievement:  
- 80.79%  
- Intervention: 6.530

2013

Target: New 4500 PS (+ PS 13,000 escort)  
KPI: 80% FSCSC meets the requirements

2014

90% FCSC meets requirement through intervention in 18,000 primary schools (10% of the total primary schools)

The impact of The National Movement of FSCSC (until 2013) to protect 2.8 million students from unsafe FSCSC and 5.6 million parents, 170,000 teachers, 170,000 street food, 51,000 canteen manager have exposed IEC food safety

Target: 4500 Primary Schools (PS)  
KPI: 65% FSCSC meets the requirement  
Achievement:  
- KPI: 64.54%  
- Intervention: 4500 PS
4.8 Risk Communication Strategy

TREND OF FSCSC MEET FOOD SAFETY REQUIREMENTS
2009 - 2013

EXAMPLE OF RISK COMMUNICATION ACTIVITIES AS PART OF EDUCATION FOR CONSUMERS

THE CAMPAIGN OF 5 FOOD SAFETY KEYS FOR SCHOOL CHILDREN
4.8 Risk Communication Strategy

5 FOOD SAFETY KEYS FOR SCHOOL CHILDREN

KEY 1: RECOGNIZE SAFE FOOD

KEY 2: PURCHASE SAFE FOOD

KEY 3: READ LABEL CAREFULLY

KEY 4: KEEP CLEAN

KEY 5: RECORD WHAT YOU’VE FOUND AND REPORT

---

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 often becomes the source of food safety problem

• Risk communication plays important roles when making solutions for food safety problems

• Risk must be communicated for related stakeholders, including consumers in such a way to achieve proper understanding of risk

• Consumers education 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

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

Current Acts concerning food labelling in Japan

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

Food Sanitation Act
- Establishment of the necessary criteria for the labeling of food to serve for the purpose of marketing (Article 19)
- Enforcing the regulations concerning Food and Additives, Apparatus and Containers and Packaging
- Prohibition of the sales for the products which do not conform to the standards and/or criteria
- Giving approval to a person who intends to conduct business from the prefectural governor

Japan Agricultural Standard Act*
- Enactment of labeling standards to be observed by Manufacturer, etc. (Article 19-13)
- Compliance with Standards for Quality Labeling (Article 19-13-2)
- Enactment of Japanese Agricultural Standards
  - Grading in accordance with Japanese Agricultural Standards etc.

Health Promotion Act
- Enactment of nutrition labeling standards (Article 31)
- Compliance with Standards (Article 31-2)
- Set a general policies
- Implementation of the national health and nutrition survey
- Prevention of passive smoking
- License pertaining to Food for Special Dietary Uses etc.

*Act on Standardization and Proper Quality Labeling of Agricultural and Forestry Products
4.9 Food Labelling System in Japan

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

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)

Cabinet approval
(June 14, 2013)

Proclamation
(June 28, 2013)

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

---

**Specific rules under the new Act**

**Food Labelling Standard**

(By June 2015)
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?

Points of discussion (cont.)

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

<table>
<thead>
<tr>
<th>Energy</th>
<th>Protein</th>
<th>Fat</th>
<th>Carbohydrate</th>
<th>Sodium</th>
<th>Saturated Fatty Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>Energy</td>
<td>Protein</td>
<td>Fat</td>
<td>Saturated Fatty Acid</td>
<td>Carbohydrate</td>
</tr>
</tbody>
</table>

5. Whether amounts of sodium should be declared as sodium or salt equivalents?
6. Reviewing Nutrient Reference Values (NRVs)
Practical steps for enforcement of the new Food Labelling Act (under consideration)

1. Food Labelling Act
   - Outline and Table Discussion
   - Draft the legislation
   - Introduce the legislation
   - Establishment and promulgation
   - Enforcement

2. Food Labelling Standard etc.
   - Draft the standard
   - Deliberation on the mandatory nutrition labelling
   - Promulgation
   - Enforcement

3. Others
   - Review subjects of future investigation, esp. on the management of the followings:
     - Labelling on ready-to-eat food and in a restaurant (e.g., labelling for food allergy), and in the Internet sales
     - Labelling of genetically modified food and food additives
     - Labelling of country of origin for the ready-to-eat food

4. Mandatory Labelling
   - The full standard to label based on the new Act

5. Nutrition Labelling
   - The timing of introduction of the mandatory nutrition labelling will be determined based on the progress of the environmental improvement, while aiming to approx. five years after the enforcement of the new law.

In a separately specified period: 1-2 years (P)

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**

- 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

<table>
<thead>
<tr>
<th>Application of Identity Preservation is performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>「Soybean (GMO)」</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No application of Identity Preservation is performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>「Soybean (GMO is not separated)」</td>
</tr>
</tbody>
</table>

**<How to label a non-GMO product>**

<table>
<thead>
<tr>
<th>Application of Identity Preservation is needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>「Soybean (non-GMO)」</td>
</tr>
<tr>
<td>「Soybean (non-GMO is sorted)」</td>
</tr>
</tbody>
</table>

**Examples**

<table>
<thead>
<tr>
<th>Name: Tofu</th>
<th>Ingredients: Soybean (GMO is not separated), ..........</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight: ......</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name: Miso (rice)</th>
<th>Ingredients: Soybean (non-GMO), ..........</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight: ......</td>
<td></td>
</tr>
</tbody>
</table>

**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.

**Examples of the IP handling: usage of corn imported from USA**

1. **U.S.A.**
   - Farm
   - Elevators

2. **JAPAN**
   - Food Factory
   - Silo
   - Bulk Carrier

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- 310 -
Thank you very much for your attention.

アブナイカモ

Official mascot of Consumer Affairs Agency
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:10am</td>
<td>Welcome and Introduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:10 - 10:00am</td>
<td>Updates on Food Safety Regulatory Frameworks</td>
<td>Cambodia</td>
<td>Mr. Sin Sideth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deputy Director, Department of Laboratory, CAMCONTROL, Ministry of Commerce, Cambodia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lao PDR</td>
<td>Ms. Viengxay Vansilalom</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Director, Food Control Division, Ministry of Health, Lao PDR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Myanmar</td>
<td>Dr. Khin Saw Hla</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deputy Director, Food Control, Ministry of Health, Myanmar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vietnam</td>
<td>Ms. Nguyen Thi Minh Ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deputy Director, Codex Office, Vietnam Food Administration, Ministry of Health, Vietnam</td>
</tr>
<tr>
<td>10:00 - 10:20am</td>
<td>Morning Tea Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20 - 12:30pm</td>
<td>Discussion</td>
<td></td>
<td>Key Topics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food Additive Safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Consumer Protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SME Education</td>
</tr>
<tr>
<td>12:30pm</td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

Cambodia Trading 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
Food safety control
Lao PDR

Dr. Somthavy CHANGVISOMMID
Director General of Food and Drug Department
Ministry of Health, Lao PDR
email: csomthavy.fdd@yahoo.com, codex.contactpoint.lao@yahoo.com

Content

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

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
   - Laboratory 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 2009
- Food labeling 2009
- Food premises registration No 1600/FDA 2009
- 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 inspectors 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
5.2 Lao

Food establishment inspection

Market inspection
Trainings
Cooperation with key stakeholders

- 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 effective
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
Thank you for your attention
Workshop on Food Safety and Standards

Sedona Hotel
Yangon, Myanmar
4th to 5th 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 system.
Responsible agencies along the food chain
Hazards

• Biological Hazards
• Chemical Hazards
  - Environmental contaminants
    - 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.
Activities

- 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 1st 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

<table>
<thead>
<tr>
<th>Import Recommendation (IR) Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applicant</strong></td>
</tr>
<tr>
<td>Case File Application with</td>
</tr>
<tr>
<td>- Product Specification</td>
</tr>
<tr>
<td>- Ingredient list</td>
</tr>
<tr>
<td>- Product Registration</td>
</tr>
<tr>
<td>Preshipment Sample</td>
</tr>
<tr>
<td>Pick up Import Recommendation for</td>
</tr>
<tr>
<td>Importation License at Ministry of</td>
</tr>
<tr>
<td>Commerce</td>
</tr>
</tbody>
</table>
Import Health Certificate (HC) for Food Importation

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Food and Drug administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative sample of Imported Foods for Customs Clearance</td>
<td>Laboratory Analysis of imported food (Shipment samples)</td>
</tr>
<tr>
<td>Pick up HC for imported food for Customs Clearance</td>
<td>Issue HC for Customs clearance</td>
</tr>
</tbody>
</table>

2013 Work load for Import Assessment

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IR</td>
<td>IHC</td>
</tr>
<tr>
<td>Fats &amp; Oils (F&amp;O)</td>
<td>472</td>
<td>740</td>
</tr>
<tr>
<td>Food Additives (FA)</td>
<td>525</td>
<td>467</td>
</tr>
<tr>
<td>Food General (FG)</td>
<td>449</td>
<td>169</td>
</tr>
<tr>
<td>Categories</td>
<td>IR</td>
<td>IHC</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Milk &amp; Milk Products (M&amp;M)</td>
<td>307</td>
<td>717</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food for Special Dietary Uses (Sp.F)</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Frozen Food (Fr.F)</td>
<td>120</td>
<td>41</td>
</tr>
<tr>
<td>Bottled Drinking Water (B.D.W)</td>
<td>19</td>
<td>-</td>
</tr>
</tbody>
</table>

### Export Recommendation (ER) Process

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Food and Drug Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case File Application with</td>
<td>Document Assessment</td>
</tr>
<tr>
<td>- Product Specification</td>
<td></td>
</tr>
<tr>
<td>- Ingredient list</td>
<td></td>
</tr>
<tr>
<td>- Product Registration</td>
<td></td>
</tr>
<tr>
<td>- reference label for bulk size</td>
<td></td>
</tr>
<tr>
<td>Representative Sample</td>
<td>Laboratory Assessment</td>
</tr>
<tr>
<td>Pick up Export Recommendation for applying Export License at Ministry of Commerce</td>
<td>Issue Export Recommendation Certificate (2 years validity)</td>
</tr>
</tbody>
</table>
Export Health Certificate Process

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Food and Drug Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative sample of exported food for Customs Clearance</td>
<td>Laboratory Analysis of exported food (Shipment samples)</td>
</tr>
<tr>
<td>Pick up HC for Customs Clearance</td>
<td>Issue HC for Customs clearance</td>
</tr>
</tbody>
</table>

2013 Work Load for Export Assessment

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Health Certificate (FE)</td>
<td>120 Rice, Bean, Palm Sugar, Tea Powder</td>
</tr>
<tr>
<td>Export Recommendation (FER)</td>
<td>148 Tradition Food, Coffee Mix, Tea Mix, Instant Noodles, Instant Vermicelli</td>
</tr>
</tbody>
</table>
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 regulatory 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

Ministry of Health
Ministry of Agriculture and rural Development
Ministry of Industry and trade
Ministry of Science and Technology
Other
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;
- Atomic 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
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

<table>
<thead>
<tr>
<th>1. Food categories</th>
<th>2. Number</th>
<th>3. Number based on Codex Standards</th>
<th>4. Percentage with Codex (%)</th>
<th>5. Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Additives</td>
<td>23</td>
<td>23</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>Supplements</td>
<td>6</td>
<td>6</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>Beverages</td>
<td>3</td>
<td>2</td>
<td>66.67</td>
<td>1</td>
</tr>
<tr>
<td>Milk and Milk products</td>
<td>5</td>
<td>5</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>Contaminants in Food</td>
<td>3</td>
<td>2</td>
<td>66.67</td>
<td>1</td>
</tr>
<tr>
<td>Formula</td>
<td>4</td>
<td>4</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>3</td>
<td>50.00</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>45</strong></td>
<td><strong>90.00</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>
2.2 TECHNICAL REGULATIONS

There are about 29 technical regulations promulgated by MARD until 2013

<table>
<thead>
<tr>
<th>Food Categories</th>
<th>Number</th>
<th>Based on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>3</td>
<td>Codex, ISO</td>
</tr>
<tr>
<td>Legumes</td>
<td>6</td>
<td>Codex, ISO</td>
</tr>
<tr>
<td>Fruits and vegetable</td>
<td>3</td>
<td>Codex, ISO</td>
</tr>
<tr>
<td>Animal feed</td>
<td>2</td>
<td>Codex, ISO</td>
</tr>
<tr>
<td>Fish and fishery products</td>
<td>14</td>
<td>Codex, ISO, EU</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>SEV, ISO</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
<td></td>
</tr>
</tbody>
</table>

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

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
THANK YOU FOR YOUR ATTENTION
### Chemical contaminants (Cambodia)

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

**Excessive Food Additives, Prohibited Chemical Additives**

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

**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*

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

**Chemical contaminants (Laos):**
*Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)*
Excessive Food Additives, Prohibited Chemical Additives

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

**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*

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<thead>
<tr>
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<th>Risk Mitigation (Any available intervention to reduce the risk?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmonella</td>
<td>chicken</td>
<td>good storage and cooking practice</td>
</tr>
<tr>
<td>E.coli</td>
<td>vegetables, water sources, street food</td>
<td>good hygiene practice, education 5 keys safer food</td>
</tr>
<tr>
<td><em>Vibrio. parahaemolityticus</em></td>
<td>seafoods</td>
<td>monitoring import food, good storage and cooking practice</td>
</tr>
<tr>
<td><em>Staphylococcus au.</em></td>
<td>RTE , street food</td>
<td>Good hygiene practice</td>
</tr>
<tr>
<td>Ophistorchis</td>
<td>Fish</td>
<td>cooked food consumption</td>
</tr>
</tbody>
</table>

**Chemical contaminants (Myanmar):**
Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)
Excessive Food Additives, Prohibited Chemical Additives

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

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*

<table>
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<tr>
<th>Food Safety Challenges Microbiological Hazards</th>
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<th>Risk Mitigation (Any available intervention to reduce the risk?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.coli, fecal coliforms</td>
<td>pulses and beans, vegetables</td>
<td>GAP – post harvest</td>
</tr>
<tr>
<td>Vibrio cholerae</td>
<td>ice products (eg. ice-cream)</td>
<td>GMP</td>
</tr>
<tr>
<td>Salmonella spp.</td>
<td>Bakery products</td>
<td>GMP</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>processed food (milk and milk products), salads</td>
<td>GMP, GHP</td>
</tr>
</tbody>
</table>

Chemical contaminants (Vietnam): 
Heavy metals (Hg, Cd, Pb, As), Mycotoxins (Aflatoxin, Ochratoxin, etc.), 
Pesticide and Veterinary drug residues, Others (3-mcpd, benzopyrene, melamine, etc.)
Excessive Food Additives, Prohibited Chemical Additives

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

**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*

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

---

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

<table>
<thead>
<tr>
<th>GEMS/Food Regional Diets</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Cereals</td>
<td>1</td>
</tr>
<tr>
<td>Roots and Tubers</td>
<td>8</td>
</tr>
<tr>
<td>Pulses</td>
<td>15</td>
</tr>
<tr>
<td>Sugars and Honey</td>
<td>6</td>
</tr>
<tr>
<td>Nuts and Oilseeds</td>
<td>9</td>
</tr>
<tr>
<td>Vegetable Oils and Fats</td>
<td>7</td>
</tr>
<tr>
<td>Stimulants (Tea, Coffee)</td>
<td>11</td>
</tr>
<tr>
<td>Spices</td>
<td>10</td>
</tr>
<tr>
<td>Vegetables</td>
<td>2</td>
</tr>
<tr>
<td>Fish and Seafood</td>
<td>3</td>
</tr>
<tr>
<td>Eggs</td>
<td>5</td>
</tr>
<tr>
<td>Fruits</td>
<td>4</td>
</tr>
<tr>
<td>Milk and Milk Products</td>
<td>13</td>
</tr>
<tr>
<td>Meat and Offals</td>
<td>3</td>
</tr>
<tr>
<td>Animal Oils and Fats</td>
<td>14</td>
</tr>
</tbody>
</table>
### 5.5 Key Topics

Please, rank the following capacity building needs

<table>
<thead>
<tr>
<th>Capacity Building Needs</th>
<th>Rank (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Basic Chemical Risk Assessment</td>
<td>2</td>
</tr>
<tr>
<td>Basic Microbiological Risk Assessment</td>
<td>3</td>
</tr>
<tr>
<td>Practical Exposure Assessment of Food Additives</td>
<td>3</td>
</tr>
<tr>
<td>Practical Exposure Assessment of Contaminants</td>
<td>3</td>
</tr>
<tr>
<td>General Food Consumption Survey</td>
<td>1</td>
</tr>
<tr>
<td>Categorization of Food Establishment based on the Risk</td>
<td>1</td>
</tr>
<tr>
<td>Chemical Laboratory Analysis</td>
<td>2</td>
</tr>
<tr>
<td>Microbiological Laboratory Analysis</td>
<td>2</td>
</tr>
<tr>
<td>NAME</td>
<td>Company</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Dr. Masanori KOMURA</td>
<td>Ajinomoto Japan</td>
</tr>
<tr>
<td>Mr. Satoshi OGAWA</td>
<td>Ajinomoto Myanmar</td>
</tr>
<tr>
<td>Dr. Yoko OGIWARA</td>
<td>Ajinomoto Thailand</td>
</tr>
<tr>
<td>Prof. Dedi FARDIAZ</td>
<td>Bogor Agricultural University</td>
</tr>
<tr>
<td>Dr. Akarat SUKOSMCHEEP</td>
<td>Coca-Cola Thailand</td>
</tr>
<tr>
<td>U Kyaw Kyaw MOE</td>
<td>Coca Cola Pinya Beverages Myanmar Limited</td>
</tr>
<tr>
<td>Mr. Kiyohisa KANEKO</td>
<td>Coca-Cola Japan</td>
</tr>
<tr>
<td>Mr. Mlaero ANDO</td>
<td>Consumer Affairs Agency (CAA)</td>
</tr>
<tr>
<td>Ms. Hyunjoo SHIN</td>
<td>Daesang Co, Ltd</td>
</tr>
<tr>
<td>Ms. Sunju KIM</td>
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</tr>
<tr>
<td>Daw (Ms.) Khin Lay SAN</td>
<td>Department of Agriculture</td>
</tr>
<tr>
<td>Dr. Sabai Htet Htet HTOO</td>
<td>Department of Food and Drug Administration</td>
</tr>
<tr>
<td>Dr. Chaw Nu Nu AYE</td>
<td>Department of Food and Drug Administration</td>
</tr>
<tr>
<td>Dr. Su Su PAING</td>
<td>Department of Food and Drug Administration</td>
</tr>
<tr>
<td>Dr. Zaw WIN</td>
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</tr>
<tr>
<td>Dr. Khin Saw HLA</td>
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</tr>
<tr>
<td>Ms. Chitra SETTAUDOM</td>
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</tr>
<tr>
<td>Dr. Ryuji YAMAGUCHI</td>
<td>ILSI Japan</td>
</tr>
<tr>
<td>Mr. Hiroaki HAMANO</td>
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<tr>
<td>Dr. Tadashi HIRAKAWA</td>
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<tr>
<td>Dr. Myeong-Ae YU</td>
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<tr>
<td>Ms. Pauline CHAN</td>
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</tr>
<tr>
<td>Mr. Keng Ngée TEOH</td>
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<td>Mrs. Boon Yee YEONG</td>
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<tr>
<td>Mr. Geoffrey SMITH</td>
<td>ILSI SEA Region</td>
</tr>
<tr>
<td>Prof. Songsak SRIANUJATA</td>
<td>Institute of Nutrition Mahidol University</td>
</tr>
<tr>
<td>Mr. Chheng UDDARA</td>
<td>Institute of Standards of Cambodia (ISC)</td>
</tr>
<tr>
<td>Ms. In SOKNEANG</td>
<td>Institute of Technology Cambodia</td>
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<tr>
<td>Mr. Mitsuhiro KATAISHIMA</td>
<td>Kao Japan</td>
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<tr>
<td>U Nyunt TIN</td>
<td>LOTTE MGS Beverage(Myanmar)Co., Ltd.</td>
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<tr>
<td>Dr. Yu Li</td>
<td>MARS Foods (China) Co., Ltd</td>
</tr>
<tr>
<td>Mr. Hiroshi KONO</td>
<td>Ministry of Agriculture, Forestry and Fisheries</td>
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<tr>
<td>Dr. Sabai Kyi MAUNG</td>
<td>Ministry of Commerce</td>
</tr>
<tr>
<td>U Kham Lyan SWAM</td>
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<tr>
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<tr>
<td>Dr. Kay Khine LINN</td>
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<td>Dr. Theing! THWIN</td>
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<td>Dr. Ko Ko ZAW</td>
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<tr>
<td>Dr. Nay Soe MAUNG</td>
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</tr>
<tr>
<td>Mr. Aing HOKSRUN</td>
<td>Ministry of Health, Cambodia</td>
</tr>
<tr>
<td>Ms. Keiko YAMAMOTO</td>
<td>Ministry of Health, Labour and Welfare (MHLW)</td>
</tr>
<tr>
<td>Dr. Somthavy CHANGVISOMMID</td>
<td>Ministry of Health, Lao PDR</td>
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<tr>
<td>Ms. Viengxay VANSILALOM</td>
<td>Ministry of Health, Lao PDR</td>
</tr>
<tr>
<td>U Tint WAI</td>
<td>Ministry of Livestock, Fisheries and Rural Development</td>
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<tr>
<td>U Thet NAING</td>
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</tr>
<tr>
<td>Dr. (Mr.) Than Naing TUN</td>
<td>Ministry of Livestock, Fisheries and Rural Development</td>
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<tr>
<td>NAME</td>
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<tr>
<td>Mr. U Myint WIN</td>
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<td>Dr. War War MOE</td>
<td>Ministry of Science and Technology</td>
</tr>
<tr>
<td>Dr. Maw Maw THEIN</td>
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<tr>
<td>Mr. Michihito OSHIMA</td>
<td>Morning Milk Japan</td>
</tr>
<tr>
<td>U Yan LINN</td>
<td>Myanmar Consumers Union</td>
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<tr>
<td>Daw Swe Swe WIN</td>
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</tr>
<tr>
<td>Mr. Ketsuke NAMEKAWA</td>
<td>Nagase &amp; Co Ltd</td>
</tr>
<tr>
<td>Mr. Halim NABABAN</td>
<td>National Agency for Drug and Food Control (BPOM)</td>
</tr>
<tr>
<td>Dr. Namaporn ATTAVIROJ</td>
<td>National Bureau of Agricultural Commodity and Food Standards (ACFS)</td>
</tr>
<tr>
<td>Ms. Tomoko TAKAHASHI</td>
<td>Nestle Japan</td>
</tr>
<tr>
<td>Ms. Eva HURT</td>
<td>Nestle Singapore Pte Ltd</td>
</tr>
<tr>
<td>Dr. (Ms.) May Khin THAN</td>
<td>Nutrition Unit, Department of Health</td>
</tr>
<tr>
<td>Mr. Hidekazu HOSONO</td>
<td>Suntory Japan</td>
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<td>Ms. Fumiko SEKIYA</td>
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<td>U Sein Thaung OO</td>
<td>Union of Myanmar Federation of Chambers of Commerce and Industry(UMFCCI)</td>
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<tr>
<td>Ms. Pham Thi Hang PHUONG</td>
<td>Vietnam Food Administration</td>
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<tr>
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