



**Asia-Pacific  
Economic Cooperation**

---

**2009/SOM2/SCSC/WKSP2/022**

## **ILSI's Food Safety and Risk Assessment Activities Through Tripartite Partnerships**

Submitted by: International Life Sciences Institute (ILSI)



**Examination of Hot Issues in Risk Analysis  
Workshop  
Singapore  
1-2 August 2009**



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## **ILSI's Food Safety and Risk Assessment Activities Through Tripartite Partnerships**

**Hot Issues in Risk Analysis,  
August 2, 2009**

**APEC Food Safety Cooperation Forum 2009**

Boon Yee Yeong  
ILSI SEA Region

---



International Life Sciences Institute  
SOUTHEAST ASIA REGION

ILSI® is an international foundation that advances the understanding of **scientific issues** impacting human health

- Food Safety
- Risk Assessment
- Nutrition
- Environment

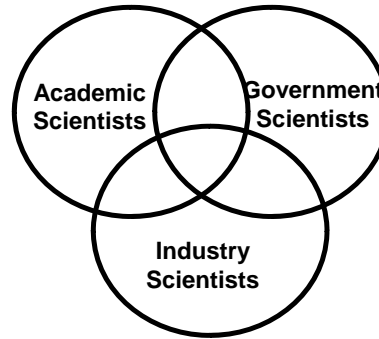




International Life Sciences Institute  
SOUTHEAST ASIA REGION

## Established 1978.....

ILSI® provides neutral and strategic platform for stakeholders' dialogues, scientific updates, and consensus forge through tripartite collaborations



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## ILSI .....A Global Network

- ILSI Focal Point in China
- ILSI Japan
- ILSI Korea
- ILSI Mexico
- ILSI North Andean
- ILSI South Andean
- ILSI North America
- ILSI Southeast Asia Region
  - ILSI Health & Environmental Health Institute (HESI)
  - Research Foundation
- ILSI Argentina
- ILSI Brasil
- ILSI Europe
- ILSI India
- ILSI North Africa and Gulf Region
- ILSI South Africa



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## ILSI® ...A Global Network



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## ILSI® Addresses Key **Global Issues...**

For examples

- Obesity
- Functional Foods
- **Risk Assessment**
- Biotechnology





International Life Sciences Institute  
SOUTHEAST ASIA REGION

## ILSI® Risk Assessment Program

- Develops and shares **advanced risk assessment knowledge** through global network of experts and collaborators
- Enhances **research capability**
- Provides **scientific resources** to international agencies
- Harmonization of **approaches and data development**
- Addresses global issues, regional needs and local relevance

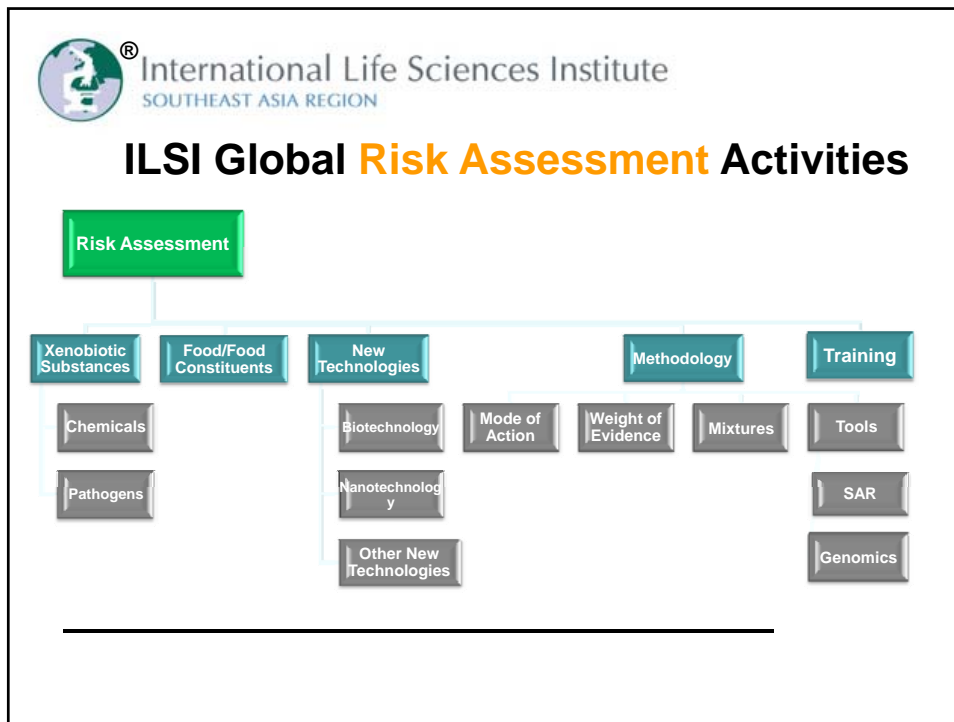



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## ILSI Risk Assessment Activities

Bringing Standardization to Risk Assessment Worldwide

| 1978-1989                                | 1990-1999   | 2000-   |
|--|---|---|
| 1978- Assessing Safety of Food Additives |   |   |
|  | 1986- Characterizing Dose-Response Relationships                    |   |
|  | 1989- Assessing Human Relevance/ Mode of Action Concept             |   |
|  | 1989- Detecting and Evaluating Pathogens                            |   |
|  | 1990- Assessing Safety of Foods Produced through Biotechnology      |   |
|  | 1990- Assessing Risk in Children                                    |   |
|  | 1992- Assessing Allergenicity                                       |   |
|  | 1996- Developing Tools for Cumulative and Aggregate Risk Assessment |   |
|  |   | 1999-2003- Alternatives to Carcinogenicity Testing                                    |
|  |   | 2003-2007- Tiered Testing Approach for Safety Assessment of Crop Protection Chemicals |



 International Life Sciences Institute  
SOUTHEAST ASIA REGION

## Contribution... Science of Risk Assessment

- Outlining principles for characterization of dose-effect relationships
- Establishing thresholds concept and principle
- Improving data on risk/benefit of food components
- Better applying mode-of-action to risk assessment
- Providing food safety and risk assessment training relevant to local health and safety concerns



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## **ILSI® Food Safety and Risk Assessment Activities Asia Pacific 2005-2008**

### **Over 30 Seminars/ Training Workshops**

- Food Microbiology – 8
  - Food Chemical/ Control Systems – 7
  - Biotechnology – 10
  - Mycotoxins – 3
  - Packaging / Contact Material - 2
  - Protein Allergenecity – 3
- 



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## **Risk Assessment: Food Microbiology**

- Workshops on Microbial Risk Assessment, 31 March 2005, Seoul; 26 31 March 2005 ; 26, ctober 2006, *Korea*
  - Symposium Series on Food Microbiology (in conjunction with IAFP) 13-16 August 2006, Calgary, *Canada*
  - Symposium on Microbiological Contamination of Food 7 December 2006, Tokyo, *Japan*
  - Symposium Series on Food Microbiology (in conjunction with IAFP) 8-11 July 2007 ; 3-6 August 2008, *USA*
  - Symposium and Workshop on Current and Innovative Approaches to Microbiological Food Safety Management (in conjunction with ICMSF) 3-4 October 2007, *Singapore*
-



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## Risk Assessment: Food Chemical/Control Systems

- International Symposium on National Food Safety Control System in Korea: Present Status and Future Prospects, 26 May 2006, *Korea*
  - International Forum on Laboratory Technology and Standardization for Hygiene, 26-28 September 2006, *China*
  - ASEAN Risk Analysis and Food Safety Standards Harmonization Workshop 8-9, February, 2007, *Vietnam*
  - Public Health Impacts of Substances Detected at Low Levels in Food: A Workable Approach for Risk Management Decisions, 4-6 June 2007, *USA*
  - 7th Regional Workshop on Risk Assessment and Harmonization of Food safety Standard in ASEAN, 15-16 May 2008, *Malaysia*
  - Regional Workshop on Risk Analysis/Risk-based Inspection and Risk Communication for 5 Andean (In Conjunction with FAO), 24-26 June 2009, Lima, *Peru*
- 
- 



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## Risk Assessment: Mycotoxins/ Packaging

- Symposium on Reducing Mycotoxins in Food – Updates and New Approaches (in conjunction with 9th ASEAN Food Conference) 10 August 2005, *Indonesia*
  - Risk Assessment of Toxins from Molds 4 September 2006, *Japan*
  - Managing Aflatoxin – From Farm to Table June 25, 2008, *Indonesia*
  - Food Packaging - Migration Modeling Workshop 25-26 October 2006,,*USA*
-





International Life Sciences Institute  
SOUTHEAST ASIA REGION

## Risk Assessment: Chemical and Allergens

- 5<sup>th</sup> ASEAN Risk Assessment and Food Safety Standards Harmonization Workshop – Flavors and Contaminants  
26-27 September, 2006 Bangkok *Thailand*
  - Workshop on Food Allergens  
9 November 2006, Melbourne, *Australia*
  - Workshop on Novel Protein Safety Evaluation  
26-27 February 2008, Manila, *Philippines*
  - Workshop on Chemical And Microbial Risk Assessment Case Studies  
7 November, 2008, *Philippines*
  - Seminar on Novel Protein Allergenicity Workshop  
7, November 2008, *Thailand*
- 



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## ILSI<sup>®</sup> Safety Assessment: Biotechnology

### DEFINING SAFETY AND EFFICACY EVALUATION

|   |   |  |   |   |  |
|---|---|--|---|---|--|
| ▶ Seminal work on "substantial equivalence" | ▶ First and currently applied decision-tree approach for allergenicity assessment | ▶ First composition reference database of key agricultural crops, with ongoing enhancements to functionality and content | ▶ Best practices for appropriate conduct of animal studies for performance evaluation | ▶ Scientific framework and recommendations for nutritional and safety assessments of food derived from nutritionally-enhanced crops | ▶ Case studies of nutritionally-enhanced crop safety assessment<br>▶ Best practices for appropriate conduct of animal studies for performance evaluation of nutritionally-enhanced crops |
| 1990  | 1996  | 2002   | 2003  | 2004  | 2007   |



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## Risk Assessment: **Biotechnology**

### Sampling Detection

- Regional Symposium and Training Workshop on Sampling and Detection Methods for Genetically Modified Seeds, Grains and Food  
27-28 March 2008, *Singapore*
- International Workshop on Detection and Sampling Methods in GMOs  
5-6 August 2008, *Chile*
- Sampling and Detection Methods Workshop  
19-23 October 2009, Shanghai and Beijing, *China*

### Safety of Biotech Nutritionally Enhanced Foods

- Workshop on Nutritional and Safety Assessments of Foods and Feeds Nutritionally Improved through Biotechnology  
27 May 2005, *Korea*
- Biotechnology and Nutritionally Enhanced Food and Feed  
2-3, November 2008, Cebu, *Philippines*
- Safety Assessment of Nutritionally-enhanced Products  
12 June 2009, *Mexico*



International Life Sciences Institute  
SOUTHEAST ASIA REGION

## How Can ILSI<sup>®</sup> Contribute to **FSCF – PTIN** ?

- As potential **Partner** to facilitate capacity building in identified priority areas
- As **Catalyst** in interpreting and identifying gaps in research
- Strengthen and extend existing **institutions network**
- Build on regional and local activities that promote **science-based** decision making



International Life Sciences Institute  
SOUTHEAST ASIA REGION

**Thank You !**

Boon Yee Yeong  
Executive Director  
ILSI SEA Region  
[boonyee@ilsisea.org.sg](mailto:boonyee@ilsisea.org.sg)

[WWW.ilsil.org](http://WWW.ilsil.org)

---