

# Presentation Outline

- Introduction to ASEAN
- ASEAN GMO Food Testing Network
  - work priorities & challenges
- EU-Asia Regional Network on GMO Analysis
  - work priorities
- Regional Perspectives at International Workshop of GMO-analysis Networking



# ASEAN Member States



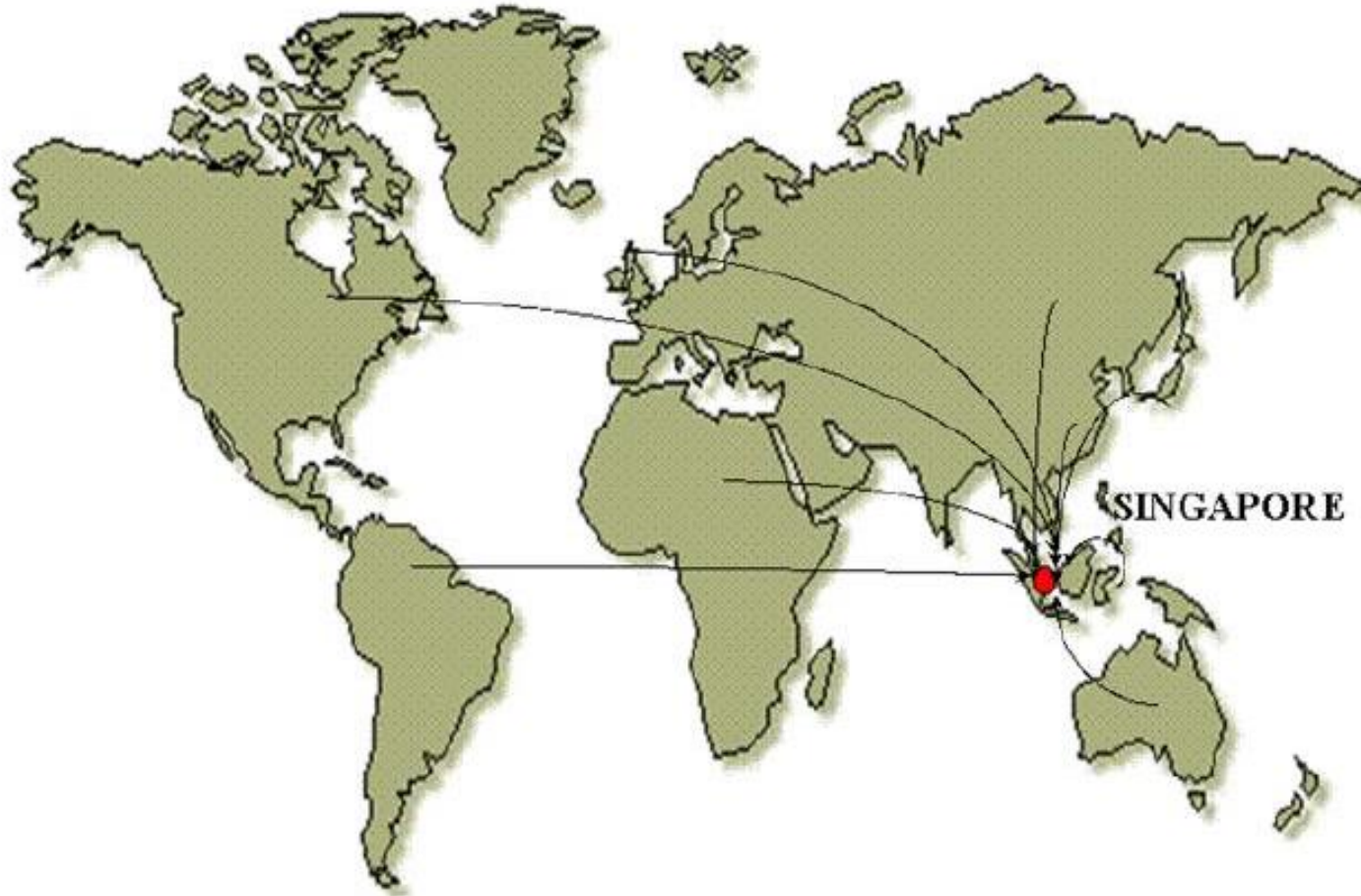
- The Association of Southeast Asian Nations (ASEAN)
  - Established on 8 August 1967 in Bangkok by the five original Member Countries, namely Indonesia, Malaysia, Philippines, Singapore and Thailand
- Brunei Darussalam joined in 1984
- Vietnam in 1995
- Lao PDR and Myanmar in 1997
- Cambodia in 1999



# ASEAN Member States



# Where We Are



# ASEAN GM Food Testing Network



# ASEAN GMO Food Testing Network: Genesis

- 1999: ASEAN Harmonized Guidelines on the Release of Agricultural Related GMOs
- 2004: ASEAN GMO Food Testing Network established by 25<sup>th</sup> ASEAN Ministers on Agriculture and Forestry Meeting
- Singapore designated as the Lead Country of the network
- To share and leverage on each others' resources and expertise to build up GM food testing capabilities



# ASEAN GMO Food Testing Network: Scope and Objectives

- As a regional cooperation platform for regulatory and scientific exchanges on issues related to GM food analysis
- To contribute effectively towards harmonisation and standardisation of methodologies for sampling, detection, identification and quantification of GM foods in ASEAN
- Enhancing collaboration and capacity building activities within and outside ASEAN
- Annual meeting organised on rotational basis among ASEAN member countries







# 9<sup>th</sup> ASEAN

## Genetically Modified Food Testing Network Meeting

May 24-25, 2012

Edsa Shangri-La, Mandaluyong City, Philippines



asean



# Main Priorities for ASEAN GM Food Testing Network

- (a) Information exchanges on regional and international developments in GMO analytical issues
  - Methods of detection/quantification
  - Reference materials
  - Method validation and proficiency testing
  - Performance criteria for testing methods
- (b) Establishing a regional framework for method validation and proficiency testing alignment with international criteria
- (c) Establishing a depository of GM reference materials
- (d) Establishing a molecular registry of genetic manipulation for GMOs
- (e) Updating listing of GMO testing labs and capabilities in AMCs
  - Services for AMCs without testing capabilities
- (f) Organizing training and capacity building to address technical needs within AMCs



# Technical Issues and Challenges

- Detection of unapproved events
- Lack of reference materials for GMO detection
- Detection of stacked events
- Analysis of highly processed food
- Production of plasmid DNA as alternative source of reference material
- Establishment of detection methods for GM crops developed in Asian countries
- Practical approach for screening un authorised GM crops
- Practical approach for estimation of MU for GMO quantitative analysis
- Detection of transgenic animals



# ASEAN GM Food Testing Network

For further information

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# EU-Asia Regional Networking on GMO Analysis



# EU-Asia Regional Network on GMO Analysis

- 1<sup>st</sup> Meeting in 2009
- EU and Asia network cooperation
- China, India, South Korea and Japan
- Link with ASEAN GMO Food Testing Network
- Objectives: platform for information exchange on GMO analysis, opportunities for collaboration and capacity building activities





# Main Priorities for EU-Asia Regional Network on GMO Analysis

- Information exchanges on regional and international developments in GMO analytical issues
  - Analytical Methods
  - Reference materials and control samples
  - Method validation and proficiency testing
  - Quality systems, measurement uncertainty
- Determining training needs and organizing capacity building programmes
- Participation in proficiency programs organised by EURL-GMFF





# International Workshop of GMO-analysis networking

## 8 – 9 April 2013

### JRC Ispra (VA) Italy

Regional meetings – Region ASIA

#### *1. Forthcoming regional technical challenges for GMO analysis*

-Increasing number of GMOs and stacked events

- need for GMO developers to be transparent and provide information in format similar to EU eg golden rice : In the field trial GM Rice developer provided information of the release but not about method for detection;

-generally there is a lack of info about elements, sequence and detection method info because of confidentiality clause

- potential risk of illegal release or trans boundary movements eg GM papaya

- GMO analytical issues

Analytical methods

Reference materials and control samples

Method validation and proficiency testing

Measurement uncertainty



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### *2. Regional needs to meet these challenges*

- GM information needs in advance is dependent on legal framework similar EU for transparency/harmonisation in the region
- Recognised need for region to improve transparency : facilitate standardisation of regional analytical methods
- stronger network linkages within Asia, with ENGL and other regional networks
- list of events for GM crops by country and related analytical matrix approach
- laboratories can cooperate in method validation, reference material providers



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### *3. Road map / Prioritisation of necessary actions*

#### 1 EU Asia Networking

Proposal for EU to organise the next EU Asia meeting in Asia

#### 2 Network linkages with ENGL and other regional networks

#### 3 Detection Method

Information-sharing and updating of GM crops under field trial including molecular info eg cry events in India and validated methods for some cotton events

Plasmid control samples of endogenous genes

#### 4 More trainings in MU and interpretation of results with case studies

#### 5 More trainings in representative and cost effective sampling with case studies

#### 6 Sharing and exchanges of national experiences in method adoption, development, validation



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*4. Next steps at regional level / training needs that JRC could help to meet*

1. EU Asia Networking

Propose to maintain annual EU-Asia network meetings

Can be back-to-back with ASEAN GMF network meetings

2 Network linkages with ENGL and other regional networks

3 Detection Method

(a) Information-sharing on Detection of Unapproved GMOs

(b) provision of plasmid control samples of endogenous genes

(c) Golden Rice detection method (+ rice reference gene method):  
information sharing + -participation in ring trial

4 Capacity building

technical trainings on Measurement Uncertainty and  
interpretation of MU





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*5. Identification of up to 3 regional representative(s) as contact person(s)*

- 1 Paul Chiew ( ASEAN GM Lab Network)
- 2 Randhawa Gurinder Jit ( India)
- 3 Dabing Zhang (China)