LESSONS ON ENHANCING FOOD SAFETY FOR EXPORT IN ASEAN

by

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Workshop on Promoting Cross-border Agricultural Trade for Sustainable Development

30 November 2016, Bangkok
Outline

- Importance of Agriculture & ASEAN Economic Community (AEC)
- Challenges on food safety and quality control issues in the region
- German support regional cooperation in Agriculture
  - ASEAN Sustainable Agrifood Systems (ASEAN SAS)
  - Food Safety in Fruit Juice Project
- Conclusion
Importance of Agriculture &
ASEAN Economic Community (AEC)
ASEAN Economic Community Blueprint 2025

- **Is envisioned to:**
  - Identify infrastructure investment requirements to increase production and reduce post-production losses to meet projected future demand and ensure food security, review existing investment programmes and address investment needs in the food and agricultural sectors;
  - Develop new and appropriate technologies, best practices and management systems to ensure food safety and address health/disease and environmental issues, particularly in the fast growing aquaculture, livestock and horticulture sub-sectors;
ASEAN Economic Community Blueprint 2025 (2)

C.5. Food, Agriculture and Forestry

55. ASEAN cooperation on food, agriculture and forestry (FAF) plays a crucial role in the context of rising population, strong income growth and an expanding middle class.

56. Going beyond 2015, the vision for the FAF sector will be “Competitive, inclusive, resilient and sustainable FAF sector integrated with the global economy, based on a single market and production base, contributing to food and nutrition security, and prosperity in the ASEAN Community”, with the goals of ensuring food security, food safety and better nutrition gaining from access to global market as well as increasing resilience to climate change.
C.5. Food, Agriculture and Forestry

57. The following interventions will be considered to promote deeper integration of the FAF sector in the region and the world through, among others:

(i) enhancing trade facilitation and economic integration;

(ii) strengthening cooperation and capacity for sustainable production;

(iii) enhancing agricultural productivity;

(iv) increasing investment in agricultural science and technology; and

(v) ensuring the involvement of agricultural producers in globalisation process. There are 8 Strategic measures.
Agriculture and its relevant to AEC

- Strategic importance of agriculture in ASEAN and its Community building process by 2015 and post 2015 - FAF plays a crucial role in the context of rising population, strong income growth and an expanding middle class

- Contribution of agriculture sector beyond the assigned measures in ASEAN Roadmap (AEC: A6 & A7) - AEC Blueprint (2009-2015)

- AEC Blueprint (2016-2025) - C5: Enhanced Economic Connectivity and Sectoral Integration - FAF

- Beyond ASEAN Community – MDGs & SDGs, Global/Regional Campaigns, greater-ASEAN FTAs


- The SP has been designed to guide ASEAN towards the completion of the Millennium Development Goals (MDGs) and the post-2015 Sustainable Development Goals (SDGs), and to achieve the related goals of the UN Zero Hunger.

- Gaps of existing measures, building on existing foundations, safeguard mechanisms, emerging & dynamic issues & challenges
Challenges on food safety and quality control issues in the region
Challenges on food safety and quality control issues in the region

ASEAN context: AEC Blueprint

- Trade in goods is one of the goals
- Underlines important role of trade facilitation measures
- Agriculture is seen as one of the sectors with high potential in trade

Importance of Non-Tariff Measures (NTM)

- Sanitary and Phytosanitary (SPS) Measures
- Technical Barriers to trade (TBT)
Challenges on food safety and quality control issues in the region (2)

- Product standard is available – food safety requirement is part of standard that needs harmonization
- Inspection and quarantine procedures are available
- Trade facilitation (ATIGA chapter SPS (SPS requirements – notification) & TBT (food safety))
- Non compliance with standard and requirements
- Gap in regional food safety requirements: implementation an enforcement in the agreed regional standard;
- Regional standard is available but there is no implementation: align national standard with regional standard;
- Weak implementation and enforcement due to gap of government capacity and personnel at national level
- Some countries have national standard that aligned with regional standard but inspection at border is not harmonize and streamline – delay cross border process;
- Food safety – SPS notification is not update, not available and accessible in English => long delay
German (through GIZ) support regional cooperation in Agriculture
ASEAN Sustainable Agrifood Systems (ASEAN SAS) and Associated Projects

1. GAP-CC and ASEAN-SAS
2. ASEAN Sustainable Agrifood Systems
3. Climate Risk (Crop) Insurance (RIICE)
4. Better Rice Initiative Asia (BRIA)
“To enable ASEAN Member States to implement the ASEAN Integrated Food Security (AIFS) Framework and its Strategic Plan of Action (SPA-FS), Strategic Thrust 4: Promote Sustainable Food Production, at the national level”
Objective: Sustainable Food Production

Project Beneficiaries in ASEAN
- Member States
- Farmers
- Private Sector
- Consumers

Promote Sustainable Food Production
- Encourage greater investment in food and agro-based industry
- Identify and address emerging issues related to food security

Agriculture Innovation

ASEAN Integrated Food Security (AIFS) Framework
- Food Security Emergency Shortage Relief
- Sustainable Food Trade and Development
- Integrated Food Security Information System
- Nutrition-enhancing Agriculture Development

30.11.2016
ASEAN Cooperation in Food, Agriculture and Forestry (2016 - 2025)

**Vision:** A competitive, inclusive, resilient and sustainable FAF sector integrated with the global economy, based on a single market and production base contributing to food and nutrition security and prosperity in the ASEAN Community

**Goals:**
- Equitable (gender, household and regional)
- Sustainable and inclusive growth
- Poverty alleviation & hunger eradication
- Food security, food safety and better nutrition
- Deeper regional integration
- Gain from access to global markets
- Increase resilience to & contribute to mitigation & adaptation of climate change, natural disasters and other shocks
- Sustainable Forest Management (SFM)
The Team: ASEAN-SAS and Associated Projects
**Intervention Areas**

**Policy Framework**
- Established dialogue and national fora
- ASEAN Guidelines integrated into national action plans
- Regional Expert Groups established
- Database on regional bio-input and regulation established

**Production Technologies**
- Improved capacity of all member states
- Human Capacity Development
  - sustainable production methods
  - Regulation, Use and Trade of Biocontrol Agents
  - Integrated Soil and Nutrient Management

**Market Linkages**
- Support bio-input producers
- Capacity development of selected SMEs and small-scale farmers
- Public-Private Partnerships
- policy recommendations
Food Safety in Fruit Juice Project
Improved Product Safety and Quality for the Thai Fruit Juice Industry

**Where**

![Thai flag] and SGF logo

**When**

April 2012 - April 2015

**Who**

5 semi-finished goods manufacturers, 1 bottler and 4 laboratories

**What**

Capacity building for improved conformity to SGF and European Fruit Juice Association (AIJN) standards

SGF Workshops on food safety as well as sustainable processing of fruits and vegetables

30.11.2016
Improved Product Safety and Quality for The Thai Fruit Juice Industry

Partnerships: SGF & GIZ
Time Line: 2012-2015
Pilot Plants: 6 Thai fruit juice factories
Important Findings on Fruit Juice Market in Thailand

- Thai fruit juice market enjoys continuous growth rate recently.
- Total market average 360 million USD
- Total growth rate is at 9% per year. (NFI, 2015)
- Thai consumer 4 liters/person/year
## Thai fruit juice Export value

<table>
<thead>
<tr>
<th>Fruit Juice Category</th>
<th>Sale Volume in (Million Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
</tr>
<tr>
<td>Pineapple**</td>
<td>6,824</td>
</tr>
<tr>
<td>Orange</td>
<td>390</td>
</tr>
<tr>
<td>Apple</td>
<td>20</td>
</tr>
<tr>
<td>Grape</td>
<td>37</td>
</tr>
</tbody>
</table>
## Export value for Pineapple products

<table>
<thead>
<tr>
<th>Country</th>
<th>% Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>57.44</td>
</tr>
<tr>
<td>Netherland</td>
<td>15.32</td>
</tr>
<tr>
<td>German</td>
<td>8.94</td>
</tr>
<tr>
<td>Japan</td>
<td>8.41</td>
</tr>
<tr>
<td>England</td>
<td>7.88</td>
</tr>
<tr>
<td>Others</td>
<td>2.01</td>
</tr>
</tbody>
</table>
Constrains in Thai Fruit Juice Industry

Farmers
- Over use of fertilizer & pesticide
- Lack of knowledge on GAP

Manufacturers
- Failed in Hygiene (Less awareness)
- Lacking of knowledge on production technique
- Less knowledge on EU standard

Market
EU Market
- Not meet EU standard for Fruit Juice
- Claim & reject by EU customers

ASEAN & Local Market
- Failed in Authenticity of Fruit juice
- Miss labelling
# Methodology

<table>
<thead>
<tr>
<th>Main activity</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Market Survey</strong> 2012</td>
<td>• Taking 15 Fruits juice samples which only declared 100% fruit Juice content from market. Analysis by international laboratory</td>
</tr>
</tbody>
</table>
| **Pre-Observation at 6 pilotos plant 2012**                                   | • Pre-observed at 6 pilots plants and give recomendations  
|                                                                              | • After pre-observed, set up SGF & GIZ Workshop on Product safety and Quality                                                            |
| **On the job training each plant 2013-2014**                                 | • Training on GMP & HACCP & Traceability  
|                                                                              | • Code of label & Code of conduct  
|                                                                              | • Taking sample (online sample & finished good) and Analysis base on EU standard  
|                                                                              | • Provided EU analytical guideline method and laboratory Inter comparision                                                                    |
| **Initial Audit by used SGF checklist End 2014**                              | • Auditting at pilot plants on SGF scope and recommendation  
|                                                                              | (Hygiene inspection, traceability check, code label check, code of conduct)  
|                                                                              | • Explanation and clarification on analysis result from international laboratory                                                               |
| **2nd Market Survey 2015**                                                     | • Taking 15 Fruits juice samples which only declared 100% fruit Juice content from market. Analysis by international laboratory                   |
|                                                                              | • Final Workshop on Audit result and Market survey result  
|                                                                              | • Fruit Juice experts from SGF present on EU’s Quality and safety control for Fruit juice                                                      |
Example : Fact Findings
Pre-observed at Pilot plant: Lacking of Knowledge on Fruit juice Concentrate

- Missed label

Raw material added sugar syrup
But label show “No sugar added”

(Base on EU label regulation law)
Pre-observed at Pilot plant: Less hygiene awareness
Pre-observed at Pilot plant: Less hygiene awareness
Manufacturer : Training on Fresh fruit quality
Manufacturers: Training on Hygiene
Manufacturers: Hygiene improvement

Before

After
Manufacturers: Hygiene improvement
Manufacturers: Hygiene improvement

Before

After
Manufacturers: Hygiene improvement
Manufacturers: Hygiene and maintenance improvement
Manufacturers: Reduce “Chlorate” contamination

Treated water contamination

Before

After
Manufacturers: Sample taking
Visiting 4 Thai laboratories

Provided EU Analytical Guildline Method and Inter-comparison Test

- Central Lab Thai
- National Food Institute
- Thailand Institute of Scientific and Technological Research
- SGS Thailand Co., Ltd.
### Achievements

<table>
<thead>
<tr>
<th>Improved Points</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fresh Fruit Quality</strong></td>
<td>- Quality of product</td>
</tr>
<tr>
<td></td>
<td>- Aroma</td>
</tr>
<tr>
<td></td>
<td>- Nitrate level</td>
</tr>
<tr>
<td></td>
<td>- Reduce high risk contaminated with ACB</td>
</tr>
<tr>
<td><strong>Plant Hygiene</strong></td>
<td>- Reduce high risk from microbiological deviation in products (Hygiene requirements)</td>
</tr>
<tr>
<td></td>
<td>- Reduce Contamination risk (chemical, water, dust, microorganism and et.al.)</td>
</tr>
<tr>
<td></td>
<td>- Increasing better working environment for worker</td>
</tr>
<tr>
<td></td>
<td>- Save cost for maintenance of building and infrastructure</td>
</tr>
</tbody>
</table>
## Achievements (2)

<table>
<thead>
<tr>
<th>Improved Points</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Program</td>
<td>➢ Reduction of initial micro-organism in fruit juice</td>
</tr>
<tr>
<td></td>
<td>➢ Reduction of cross contaminate with foreign matter</td>
</tr>
<tr>
<td></td>
<td>➢ Save cleaning time (O.T., cleaning chemical)</td>
</tr>
<tr>
<td></td>
<td>➢ Save cost for maintenance and replacement</td>
</tr>
</tbody>
</table>

**GOOD IMAGE**

- Reduction of complains by customer on product quality
- Ready for audit or customer visit any time
Lessons Learnt on Fruit Juice project

- Use as show case for fruit Juice processors, countries to fulfil requirements of SGF standard (EU) for replication
- Most of Thai fruit Juice processors do not want to join as the product sold in local and ASEAN market, then the product does not meet EU standard (Declared 100% fruit juice but sugar added and citric added)
- The project not work directly with farmers then it needs the strong support from processor to promote GAP at farm level
CONCLUSION

• Food safety continues to play important role in achieving AEC.

• Discrepancy of national system and regional requirement (implementation and enforcement of standard) are the key issue.

• Harmonization of inspection and quarantine procedures at cross border is important.

• SPS notification process required improvement.

• Enhancing capacity at national level and reducing discrepancy among countries will contribute to achieving free flow of goods in the region.
Media and Resources

ASEAN-SAS Website [www.asean-agrifood.org](http://www.asean-agrifood.org)
Media and Resources

ASEAN SAS Online Newsletter

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ASEAN Sustainable Agrifood Systems (ASEAN SAS)
Better Rice Initiative Asia (BRIA)
Climate Risk Insurance (RIICE)

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www.better-rice-initiative-asia.org
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