Asia-Pacific
Economic Cooperation

Workshop "*Best Practices on Educating Food Safety Standards to SMEs*"

Final Report and Proceedings

APEC Sub-committee on Standards and Conformance
APEC Committee on Trade and Investment

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1. Introduction

"APEC economies should work together to facilitate improved agricultural trade, maintain reliable markets, enhance the business environment and ensure food safety in the region with key stakeholders. Building the capacity of economies to produce, access, and distribute safe food, as well as to develop appropriate food safety regulation, serves as integral element of food security." (Niigata Declaration on Food Security)

The issue of food security cannot be separated from the issue of food safety, as much of the sources of food and beverages for the population are being produced and sold by small and medium enterprises (SMEs). Factors affecting food safety compliance within SMEs, in particular on the implications for regulatory and enforcement strategies have been reviewed (Yapp and Fairman, 2006). The small and medium enterprises account for approximately 90 percent of businesses in the APEC region. Of this number, a considerable percentage of SMEs operate in the food industry, contributing to cater for demands of over US$ 623 billion worth of food and beverages (for Asia Pacific region). Thus the issue of establishing food security and safety is of paramount for this enormous market, thus requiring and ensuring that SMEs adhere to food safety standards.

The main barriers that prevent regulatory compliance within SMEs were discussed. The results showed that besides barriers present within SMEs, specifically time and money, there were also a number of complex barriers. These barriers included the lack of trust in food safety legislation and enforcement officers, a lack of motivation in dealing with food safety legislation, and lack of knowledge and understanding.

Limited available information on food safety standards as well as lack of incentives are other few factors that keep SMEs from applying food safety standards. SMEs may view that complying with standard is additional administrative burden and costly to their small business. On the other hand, as customers become more educated and seek for food sources alternatives, SMEs need to be empowered and motivated to implement good practices of food safety standards. By making SMEs comfortable with standards, they will become more competitive in penetrating larger market and strengthening supply chain.

Many efforts including providing education on food safety to SMEs have been made to motivate the implementation of good practices of food safety standards. The impacts of these efforts in increasing the SMEs motivation in applying food safety standards may vary from one member economy to the other due to differencies in characteristics of the SMEs such as financial and managerial capabilities. Therefore, there is a need to assess the experience of each member economy in making efforts to break the barriers that prevent food safety regulatory compliance within SMEs. This project is designed in a form of workshop to assess previous experiences in educating food safety standards to SMEs and to recommend the best practice to be applied by member aconomies in enhancing the capacity of SMEs in applying food safety standards in their food production.

Yapp, C, and R. Fairman. 2006. Factors affecting food safety compliance within small and medium-sized enterprises: implications for regulatory and enforcement strategies. Food Control 17 (2006): 42-51. www.sciencedirect.com

2. Objectives

The importance of SMEs contribution in the production and trade of food inside the APEC region and beyond have made some member economies aware and work towards securing and improving the business of these SMEs. Successful programs and initiatives in these economies is expected to have undergone changes, modifications and evolution to suit the growing needs of SMEs business development and international trade requirements. The experience of member economies in achieving such success provide motivations and lessons to other members planning to drive and encourage their respective SMEs to comply to international food safety regulation and trade requirements. Thus the objectives of this workshop are to:

a. enhance understanding of SMEs on the importance of food safety standards in increasing the competitiveness of their food products to penetrate larger market,
b. share experiences among member economies on what is the best practice to educate food safety standards to SMEs,
c. develop recommendations for building up the capacity of SMEs in applying food safety standards in their food production.

3. Workshop Agenda

The workshop on best practices in educating food standards to SMEs was held on 10 April 2013 in Surabaya, Indonesia as part of APEC second Senior Officials Meeting (SOM II). This workshop became an unprecedented meeting to discuss the importance of SMEs in the safety of food being supplied, produced, traded and consumed by APEC economies. It became apparent that SMEs receive awareness, education and training in food safety to enable better adherence and conformity to regulations.

The workshop was attended by representatives from 16 member economies:

Australia	Mexico	Chinese Taipei
Chile	New Zealand	Thailand
People's Republic of China	Papua New Guinea	United States of America
Indonesia	Peru	Viet Nam
Korea	Philippines	
Malaysia	Singapore	

Representatives from observer nation also attended the workshop, namely Belgium, Nigeria and Switzerland.

The points for discussion in the workshop were divided into three respective sessions:

Session 1 – presented and discussed various program for SME empowerment in applying food safety standards,
Session 2 – presented and discussed regulatory approaches by authorities to encourage and enhance food safety standard compliances by SMEs,
Session 3 – presented and discussed appropriate and applicable communication and training strategies in enhancing SMEs capacity building.

3.A. Session 1 - Empowering SMEs in Applying Food Safety Standards

This session was chaired by Dr. Dedi Fardiaz, discussing ways and programs in empowering SMEs to apply food safety standards. In this session, three speakers presented their views on various subjects ranging from the seafood SMEs to member economy's approach in empowerment. Different schemes and collaborations were also presented which have been shown to achieve empowerment of SMEs in various countries.

The first presentation by Dr. Steve Otwell of University of Florida introduced the scope and approached made by Seafood HACCP Alliance (SHA) in empowering SMEs involved in the seafood business to comply and apply seafood safety standards. This collaborative approach was initiated in 1995, is USFDA recognized and involves more than 25,000 certified participants and over 250 qualified instructors. SHA courses are also available in many countries all around the world, including Indonesia, which exports seafood to the US market. However, there is a lack of qualified SHA instructors in some of these countries, including Indonesia.

The approach employed by SHA involves training the commercial sector, or SME producers on seafood safety. The other audience to SHA trainings is regulatory authorities with interest in setting and governing safe food production and commerce. Training materials offered in SHA trainings for respective audiences include HACCP

and sanitation manuals, classroom and internet courses (made available through AFDO, Sea Grant and UC Davis), and DVD materials for self-learning. These training materials and methods are translated in 7 languages and printed in straight forward "how to" format allowing easy applications. Updated information and support are available via internet access ranging from recent incidence of poisoning to support for persistent problems and confusing issues in applying seafood safety.

Future programs currently planned by SHA are development of more training materials, more internet courses and delivery in other electronic platforms, and more international courses and translations of training materials in other languages. Furthermore, liaison and collaborations with other organizations in the interest of promoting and enhancing seafood safety for trade and commerce are among those being planned for the future approaches in empowerment.

The second presentation by Ms. Jongkolnee Vithayarungruangsri of Thailand Ministry of Public Health focused on Thai efforts and experiences to empower SMEs. Thailand definition of micro and small businesses is determined by employees less than 50 people and assets less than USD 1.45 million. The definition of medium business employs 50 – 200 employees with assets up to USD 5.80 million.

Empowerment of SMEs in food business involve the collaboration of various government ministries, namely the Ministry of Industry, Ministry of Agriculture and Cooperatives, Ministry of Interior and Local Authorities and the Ministry of Public Health. The empowerment of these SMEs follow an established development plan established by the Office of Small and Medium Enterprises Promotion (OSMEP) renewed and expanded every 4 years, pursuing larger trading communities and market, from domestic to global territories. This development and promotions plan involves capacity building targeting SMEs applying for certifications (Q-mark and ISO) and development of infrastructure favorable for SMEs business operations. Such infrastructure may include a simple database compilation of logistics service providers and the establishment of consulting service centers.

In practice, empowerment of SMEs in Thailand emphasize trainings and capacity building by introducing the basic standards in primary GMPs to improve environment sanitation, proper maintenance and cleaning of equipments, food processing control, maintaining good sanitation, cleaning of production surroundings and ensuring personal hygiene. The training offered to SMEs involve "face-to-face" training groups in established training centers ranging from small rural centers catering for farmers up to the involvement of Universities. Training materials used consist of guide books, distance learning by television, and e-learning provided on the internet.

The third presentation by Dr. Roy Sparringa of NADFC Indonesia outlined Indonesia approach to enhance SME empowerment in practicing food safety standards. The bulk of SMEs operating in Indonesia food industry is household scale which requires evaluation for food safety and registration to the National Agency for Drug and Food Control (NADFC). This agency was given mandate to issue GMP regulations for application by household food industries, and has been providing training to over 39,000 SMEs, certifying over 32,000 SMEs.

The Indonesia approach to SME empowerment emphasizes public-private partnership to promote, nurture and sustain SME business and their mutual cooperation between the government, universities and corporate entities. The government empowerment program is an integrated approach, coordinated by the State Ministry of National Development Planning which involves the collaboration of almost all other ministries, except defense. In implementing SME empowerment, the forefront effort is lead by the district government in training and auditing SMEs premises. Furthermore, NADFC initiated motivational packages titled "Food Star Award Program" to encourage and drive SMEs in complying to and implementing food safety standards in their operations.

Other SME empowerment programs conducted by universities include applicable technology transfer in production and processing, and further training or capacity building to raise awareness in food safety. Programs currently undergoing at universities include business incubators for startup and SMEs, and outreach or extension programs. Corporate entities also participate actively in empowering SMEs, especially those under

their supervision or mutual collaboration. The approaches implemented through corporate responsibilities include providing assistance in marketing and some investment (ie. stalls and some capital). Some program currently under the management of corporate leadership include supporting food vendor associations, supply of good and safe raw materials/ingredients, and providing loan for establishment of hygienic preparation stalls/equipments.

3.B. Session 2 - Regulatory Approaches in Enhancing Food Safety Standards Compliance by the SMEs

This session was chaired by Dr. Purwiyatno Hariyadi, discussing different regulatory approaches to encourage and drive SMEs in complying with food safety standards. In this session, three speakers presented their views on various subjects ranging from the challenges faced by Southeast Asian SMEs and some possible solutions; experience of aquatic products company in its development to comply with regulations; the USFDA approach in regulatory considerations for SMEs in the rulemaking process.

The first presentation by Ms. Boon Yee Yeong of Southeast Asia ILSI (ILSI-SEAR) outlined challenges faced by ASEAN SMEs in the food business, and some possible ways to address the issue. ILSI-SEAR observed that SMEs are faced with limited capital and access to loans, lack of modern technologies implemented, lack of good human resources, difficulties in procuring raw materials/ingredients, lack of access to information, lack of reliable infrastructure and difficulty in complying with regulations. One possible solution to address these challenges put suggested by ILSI-SEAR is by implementing the risk-analysis framework.

Risk analysis framework consists of three components: risk assessment, risk management and risk communication. It is suggested that authorities mandated with establishing regulations implement risk analysis in the approach to set relevant regulations and standards. It was argued that risk analysis approach would help SMEs to achieve compliance because standards and regulations are based on addressing real food safety risks and not perceptions and concerns about hazards. Furthermore, this approach allows transparency and interactive communication for SMEs to understand the food safety problem and provide feedback for feasible solutions. Additionally, results of risk analysis assist targeted capacity building efforts to specific SMEs affected by specific food safety risk.

The implementation of food safety regulations based on risk analysis may be considered ideal in SE-Asian region. However, there are numerous challenges that still exist such as the lack of legal framework in some countries in implementing risk analysis as the basis for food control system and lack of access to scientific data for undertaking risk assessments including the sharing of existing data. The role that ILSI-SEAR have undertaken to support risk analysis approach in SE-Asia include the establishment of ASEAN food safety standards database, ASEAN Risk Assessment Capacity Building in food consumption data, and risk profiles for contaminants in food. The food safety database holds food safety standards of ASEAN countries on food additives to help authorities identify and harmonize their respective standards based on risk analysis approach. The food consumption data collected by ILSI-SEAR incorporates scientific studies for calculating dietary exposure to chemicals and microorganisms in the ASEAN region. This data collection is planned to be developed to draft the ASEAN food category system for ASEAN food consumption database. The work on risk profiles for contaminants gathers available existing scientific and relevant data on hazard of concern as identified by ASEAN food authorities to be used as a preliminary risk assessment. It is expected by using risk analysis approach, incorporating all relevant and available data, regulatory authorities would be capable to establish appropriate and achievable standards and regulations for SMEs to comply with.

The second presentation was presented by Ms. Zhao Hongmei of Zhanjiang Guolian Aquatic Products Co. of China. The talk focused mainly on the company's development and rapidly attaining certifications starting with HACCP/ISO 9000, EU BRC up to BAP. The company employs systems including water quality testing, production recording, microecologics prescription, product labeling, and pre-harvest product testing. The company food production safety includes traceability system incorporating electronic control and software.

The current status of China SMEs food safety management was presented showing most SMEs in food industry have poor processing conditions, inferior equipments and lacking awareness in the importance of food safety. Other problems include lack of professional skills and knowledge which affects food safety management. The major reasons restricting SMEs in implementing effective food safety management were due to poor infrastructure, insufficient professional human resources, and high cost in improving quality and safety management. According to the company, in China SMEs lacking skills and technology can search for assistance from the regulatory body, consulting organizations, academicians, and/or research institutes. Training programs were developed to raise awareness and improve food safety management, involving numerous technical cooperation bodies from research centers and universities. Additionally, by being open to external supervision and inspection help to improve the company's food safety management ability.

The third presentation by Mr. Michael Landa of USFDA introduced the approach and considerations in the FDA rulemaking process. The FDA implements three reasons for business size considerations namely general statutory, specific statutory and policy for size of business. The general statutory reasons include regulatory flexible act that seeks and establishes a less burdensome regulation after analyses show the impact of a regulation on substantial number of small businesses. The other component of the general statutory is the small business regulatory enforcement fairness act which underlines the publication of guidelines for small businesses to comply with regulation.

The specific statutory requirement for size considerations is composed of three acts: 1) nutrition and education labeling act; 2) patient protection and affordable care act; 3) food safety modernization act. The nutrition and education labeling act exempts businesses having fewer than 10 employees and selling fewer than 10,000 units of food annually from notifying the FDA, while business with up to 100 employees producing/selling less than 100,000 units annually require notifying FDA before marketing their products. General merchandise retailers with annual gross sales less than USD 500,000 are also exempted from this act, and food retailers selling less than USD 50,000 annually. The patient protection and affordable act require menu labeling in establishments for chains with 20 locations or more, and vending machine operators with 20 or more machines. The food safety modernization act exempt farms selling less than USD 500,000 annually and more than 50% of their products are sold directly to consumers, restaurants or retailers within 275 miles from the premise.

The policy reasons for size considerations apply partially to processing and importing of seafood, fruit juice, *trans* fat, GMP for dairy products, shell egg productions (incl. storage and transport). Due to its highly potential risk in processing and import of seafood, outreach program and technical assistance such as trainings provided by SHA and educating industry groups are being implemented. In the processing and import of juice, small businesses with fewer than 500 employees are given an extra year to comply while smaller businesses are given two extra years of compliance time. Small businesses with fewer than 500 employees are given two extra years to comply with *trans* fat labeling regulation. Similarly in the dairy production business, smaller businesses with fewer than 20 employees are given three years to comply with GMP implementation.

The above statutory and policy illustrates considerations in terms of exemption or giving longer compliance time for small businesses after it has been analyzed and established that some regulations would have an impact. These are exemplary regulatory approaches that encourage small business to work harder and achieve compliance. In addition to these policies, other FDA programs include education and technical assistance in the form of alliances, partnerships, trainings and international capacity-building including FDA foreign offices.

3.C. Session 3 - Appropriate Communication and Training Strategy in Enhancing SMEs Capacity Building

This session was chaired by Dr. Aman Wirakartakusumah, discussing different strategies in communicating to and training SMEs to enhance capacity building. This session consisted of three speakers presenting their strategies and experience in effective capacity building for SMEs.

The first presentation by Dr. Brian Bedard of The World Bank Global Food Safety Capacity Building Partnership (GFSP) describes the program initiated by the World Bank to train SMEs on food safety issues. The World Bank realizes that food safety is a global food problem that requires local solutions based on the location of each SME. The common and global scheme of food supply chain is the supply and transportation of food from farmers' community to processors then retailer/consumers demanding safe food. This is communicated by the feedback traveling in the opposite direction of the food/products. The global scheme is that the government is the regulating body in this food chain.

The World Bank observed from its many food safety training programs that capacity building requires serious investment in terms of capital and cost which results in the substantial reduction of qualifying compliant SMEs (90% attrition rate is not uncommon). This is due to market and consumer awareness that high quality and safety of products is considered a very important factor in deciding purchase and demand, nullifying non compliant businesses. Thus training SMEs to comply require individual upgrading plans prioritizing which requirements or regulation to comply with.

According to the World Bank, SME upgrading plan for compliance begins with diagnosis of the problems faced by the SME, followed by upgrading plan and financing which include equipment and facilities upgrading, pest control, cleaning, alliances and partnership, and *training and capacity building*, followed by implementation and monitoring after approval of these plans. The training contents include compliance requirements, overview of main food production processing operations, modernizing equipments, financial requirements etc. While training subjects vary from HACCP to allergen management to food defense and food fraud. Knowledge centers tasked with providing trainings include but not limited to academic institutions, industry associations, consultants, certification bodies and regional networks of companies.

In the context of food safety training as a global issue, scaling up of successful training and capacity building schemes is an important factor. This would enable such training scheme to be transferred elsewhere to a different location, modified and adjusted to the local needs, than applied and further scaled-up. Modern information technology and electronic media significantly help in the spread and success of training program scale-up, however the literacy of targeted SMEs is the major factor to be taken into account when designing the training content.

The second presentation by Ms. Alpha Mateo of the Philippines describes the Philippines experience in SME food safety capacity building. In Philippines, micro, small and medium enterprises (MSMEs) contributes up to 61.2% of total employment and 35.7% of total added value. The size of enterprises may be classified by asset (under USD 0.074 million for micro and over USD 2.4 million for large) and/or employee number (less than 10 for micro and over 200 employees for large enterprises).

The problems faced by Philippines MSMEs include product contamination due to poor plant sanitation and improper application of food additives and packaging materials. These problems are caused by inadequate technical resources, insufficient investment, lack of awareness and understanding for food safety requirements. Thus the Philippines is adopting a gradual implementation of quality and food safety assurance starting from good housekeeping to hygienic practices in GMP up to HACCP/ISO.

In order to implement the adoption of food safety assurance systems, the Philippines government established a collaborative project between various governmental agencies namely agriculture, health, local government and science and technology centers. This collaborative approach is named the food safety inter-agency program, which includes the development of model companies, online seminars, open forums and trainings. Some specific activities are initiated by the food industry to discuss issues and concerns on current food safety. Other specific activities originate from the Department of Science and Technology to encourage and assist MSMEs to

adopt technological innovations to improve their operations and food safety. Such program is named *Small Enterprise Technology Upgrading Program* (SET-UP).

The final presentation by Dr. Hadi Karia Purwadaria from Swiss German University, Indonesia explained the role business incubators play in enhancing capacity building for SMEs. The business incubator scheme presented is specific for technology based business incubation which nurtures SMEs by coaching entrepreneurship and management, providing essential trainings on food safety management, providing consultation in innovative technology implementation, providing access to certain market and facilitating access to loans and other financial resources.

The technology business incubator (TBI) operates by nurturing SMEs operating in the food industry/business for 2-3 years, providing an independent facility on university, governmental or corporate sites that are committed to the public-private partnership concept. TBI first select suitable SMEs for supervision and incubation based on motivation and business development plans. The accepted SMEs are given the choice to operate within the TBI premise or remain outside.

The incubation program provided by TBI facilitates access to government grants for up to 2 years, introducing and assisting the adoption of technological advances such as process optimization, trainings and capacity building, coaching entrepreneurial management, assisting HACCP implementation, assistance in packaging design, providing access to food businesses network and market access, and assisting application for NADFC registration number. What is offered by business incubations schemes such as TBI is the complete business package that is comprehensive of business development which includes the necessity to comply with food safety standards and regulations.

4. Results of Discussion and Recommendation

The workshop presented and discussed many key issues in the effort and approaches to educate SMEs in complying with food safety standards and regulations. There are many experiences in addressing the challenges faced by their respective SMEs in different member economies, which may require a unique approach or strategy. However, from this gathering, there some common understanding and efforts among the member economies of the APEC region as the *best practices in educating SMEs to comply with food safety* which may be applicable and developed further in their respective locations. Thus some recommendations as the result of this workshop have been formulated as follows.

1. Empowerment of SMEs requires comprehensive approach to resolve issues such as limited access to information, education, training, technology, capital, and market access. An effective platform for empowerment is networking that may be provided by concrete schemes such as start-up business incubators. Corporate-social responsibilities (CSR) and public-private partnerships are good platforms to enhance SME empowerment via education, training and appropriate communication to improve awareness of food safety. It is essential to include consumers in food safety education to help in reporting food safety incidence.

2. The unique characteristics of food producing SMEs in member economies require unique regulatory approach, especially considering the fact that up to 26% is exported all over the APEC region. This accounts

for a substantial amount of trade which requires regulating to encourage business growth and food safety compliance. With a globalized market, current food system (dominated by SMEs) is becoming more extensive, not isolated to one local territory. This requires multi-country partnership for addressing issues in food safety of food produced by SMEs.

3. Harmonization of food safety regulation for SMEs requires networking framework which accommodates the interests of regional members to promote and drive food safety compliance by each member's SMEs. Analysis of Regulation Impact on SMEs is an exemplary approach to find the appropriate regulatory avenue to encourage SMEs to comply with food safety regulation, any amendments, and updates to it.

4. Capacity building programs need to identify and take into account the needs of targeted SMEs. Capacity building program should stress the importance of changing behavior of SMEs human resources toward development of food safety culture. In developing capacity building, periodical assessment and identification of SMEs needs is required to stay relevant to SMEs business development. Capacity building may be a package including other forms of assistance such as loan, capital, land etc. One example is a start-up business incubation program with its comprehensive approach to include complete package of business aspects (not only food safety compliance) throughout the whole value chains.

5. Communication strategy to SMEs should take advantage of various media which is applicable/suitable to the literacy level of SMEs. The content of such communication should emphasize the importance of food safety to promote business development. Ideally, successful communication strategy and capacity building may be scaled-up and replicated in other locations.

Appendix 1. Workshop Agenda

BEST PRACTICE IN EDUCATING FOOD SAFETY STANDARDS TO SMEs

SURABAYA, INDONESIA
10 APRIL 2013

Time	Schedule
08.00-09.00	Registration
09.00-09.05	Welcome (MC)
09.05-09.15	**Welcome address** Ms. Lucky S. Slamet Head of NADFC, Indonesia
09.15-09.30	**Keynote address** Ms. Renee Hancher, APEC Project Overseer
09.30-09.40	Group photo/Press conference
09.40-10.00	Coffee break
Session I **Empowering SMEs in Applying Food Safety Standards** Chairperson: Prof. Dedi Fardiaz, Ph.D, Bogor Agricultural University, former Deputy Head of NADFC for Food Safety and Hazardous Substance Control)	
10.00-10.30	*The Seafood HACCP* Dr. Steve Otwell Univ. Of Florida
10.30-11.00	*Thailand's experiences to empower SMEs*. Ms. Jongkolnee Vithayarungruangsri Ministry of Public Health, Thailand
11.00-11.30	*"Indonesian Approach in Enhancing the SMEs Empowerment in Practicing Food Safety Standards"* Dr. Roy Sparringa NADFC, Deputy 3
11.30-12.30	Discussion
12.30-13.30	Lunch break
Session II **Regulatory Approaches in Enhancing Food Safety Standards Compliance by the SMEs** Chairperson: (suggested: Prof. Purwiyatno Hariyadi, Ph.D., Director of SEAFAST Center, Bogor Agricultural University)	
13.30-13.55	*Building ASEAN Capacities in Applying Food Safety Risk Analysis – A "Win-Win" Approach for Regulators and SMEs in the ASEAN Economic Comminity"* *Ms. Boon Yee Yeong* ILSI Southeast Asia Region
13.55-14.20	*"China Experience in Handling Food Safety Compliances for SMEs"* Ms Zhao Hongmei Vice General Manager Zhanjiang Guolian Aquatic Products Co., LTD.
14.20-14.45	*"Enhancing the Capacity of SMEs in Complying Food Safety Standards through Regulation"* Mr. Michael Landa, Director, Center for Food Safety and Applied Nutrition, USFDA.
14.45-15.15	Discussion

15.15-15.45	Coffee break
Session III **Appropriate Communication and Training Strategy in Enhancing SMEs Capacity Building** Chairperson: (suggested: Prof. M. Aman Wirakartakusumah, Ph.D., former Rector of Bogor Agricultural University and former Indonesian Ambassador to UNESCO)	
15.45-16.10	*General IT, on-line and MOOCs to be supported under the GFSP and analysis data from the June HACCP program.* Brian G. Bedard The World Bank,
16.10-16.35	*"Communication and Training Strategy in Enhancing the SMEs Capacity Building: Philippine Experience"* *Ms. Alpha Mateo (Philippine)*
16.35-17.00	*Strengthening Food SME Development through Technology and Business Incubation.* Prof. Dr. Hadi Karia Purwadaria, Swiss German University, Indonesia
17.00-17.30	Discussion
17.30-18.00	Workshop summary and closing (Head of NADFC)
18.30-20.50	Dinner

Appendix 2. Workshop recommendations presented at SOM II

SUB-COMMITTEE ON STANDARDS AND CONFORMANCE (SCSC)
WORKSHOP ON EDUCATING SMES
ON FOOD SAFETY STANDARDS

J.W. MARRIOT HOTEL
SURABAYA, INDONESIA
10 APRIL 2013

Workshop Summary

Asia-Pacific Economic Cooperation

APEC INDONESIA 2013

SUB-COMMITTEE ON STANDARDS AND CONFORMANCE (SCSC)
WORKSHOP ON EDUCATING SMES ON FOOD SAFETY STANDARDS
J.W. Marriot Hotel, Surabaya, Indonesia, 10 April 2013

Opening Session

- Welcome Address Lucky S. Slamet, Head of NADFC, Republic of Indonesia
- Keynote Address Renee Hancher, U.S. Department of Commerce International Trade Administration, USA

Session I Empowering SMEs in Applying Food Safety Standards
Chairperson: Dedi Fardiaz, Bogor Agricultural University, Indonesia

- *The Seafood HACCP* (Steven Otwell, University of Florida, USA)
- *Thailand's Experiences to Empower SMEs* (Jongkolnee Vithayarungruangsri, Ministry of Public Health, Thailand)
- *Indonesian Approach in Enhancing the SMEs Empowerment in Practicing Food Safety Standards* (Roy Sparringa, National Agency for Drug and Food Control, Republic of Indonesia)
- Discussion

Session II Regulatory Approaches in Enhancing Food Safety Standards Compliance by the SMEs
Chairperson: Puwiyatno Hariyadi, Bogor Agricultural University, Indonesia

- *Building Capacities in Applying Food Safety Risk Analysis-Approaches for Regulators and SMEs in the ASEAN Economic Community* (Boon Yee Yeong, International Life Sciences Institute (ILSI) Southeast Asia Region
- *China Experience in Handling Food Safety Compliances for SMEs, Company Development and Food Safety* (Zhao Hongmei, Zhanjiang Guolian Aquatic Products Co., LTD, China)
- *Enhancing the Capacity of SMEs in Complying Food Safety Standards through Regulation* (Michael Landa, Center for Food Safety and Applied Nutrition, US Food and Drug Administration, USA
- Discussion

Session III Appropriate Communication and Training Strategy in Enhancing SMEs Capacity Building
Chairperson: M. Aman Wirakartakusumah, Bogor Agricultural University, Indonesia

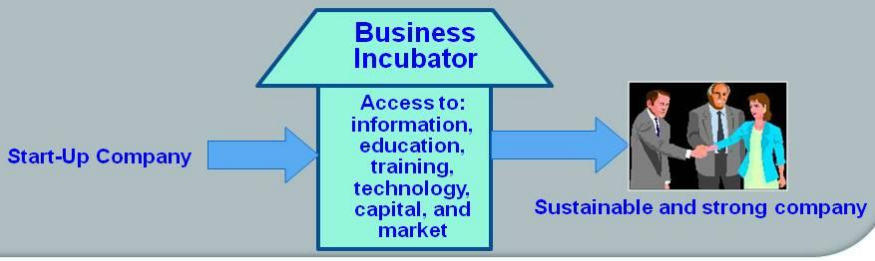
- *General IT, On-line and MOOCs to be Supported under the GFSP and Analysis Data from the June HACCP Program* (Brian G. Bedard, The World Bank)
- *Communication and Training Strategy in Enhancing the SMEs Capacity Building: Philippines Experience* (Alpha Mateo, Philippines Ministry of Agriculture, the Philippines)
- *Strengthening Food SME Development through Technology and Business Incubation* (Hadi Karia Purwadaria, Swiss German University, Indonesia
- Workshop Summary and Closing
- Dinner

Main Agenda

- **Session 1**
  Empowering SMEs in Applying Food Safety Standards
- **Session 2**
  Regulatory Approaches in Enhancing Food Safety Standards
- **Session 3**
  Appropriate Communication and Training Strategy in Enhancing SMEs Capacity Building

Summary

- SME empowerment requires a **comprehensive approach** to resolve issues such as limited **access to information, education, training, technology, capital, and market**. An effective platform for empowerment is **networking** that may be provide a **concrete scheme** such as trough a start-up **business incubator**.



Summary

- **CSR** and **public-private partnerships** are examples of good schemes to enhance SME empowerment in raising food safety awareness through **training and appropriate communication**. Involving consumers in food safety training is also essential to reporting **food safety incidences**.
- The unique characteristics of food producing SMEs in member economies **requires unique regulatory approach**, especially considering the fact that up to 26% of product **is exported** all over the APEC region. This accounts for a substantial amount of trade which requires **regulating to encourage business growth and food safety compliance**.

Summary

- **Analysis of Regulation Impact** on SMEs is an exemplary approach to find the **appropriate regulatory avenue to encourage** SMEs to **comply with food safety regulation**, any amendments, and updates to it.
- Capacity building programs need to **identify** and take into account the **needs of targeted SMEs**. Capacity building programs should stress the **importance of changing behavior** of SMEs human resources to support the development of a food safety culture.

Summary

- In developing capacity building, **periodical assessment** and **identification** of SMEs needs are required to stay **relevant to SMEs business** development. Capacity building may be a packages could include **other forms of assistance,** such as loan, capital, land etc. One example is a start-up **business incubation program** with its comprehensive approach to include **complete package of business aspects** (not only food safety compliance) throughout the whole value chains.

Summary

- **A communication strategy** for SMEs should take advantage of various media which is **applicable/ suitable to the literacy level of SMEs**. The content of such communication should emphasize the **importance of food safety** to **promote business** development. Ideally, successful communication strategy and capacity building may be **scaled-up and replicated** in other locations.

Appendix 3. Presentations of invited speakers

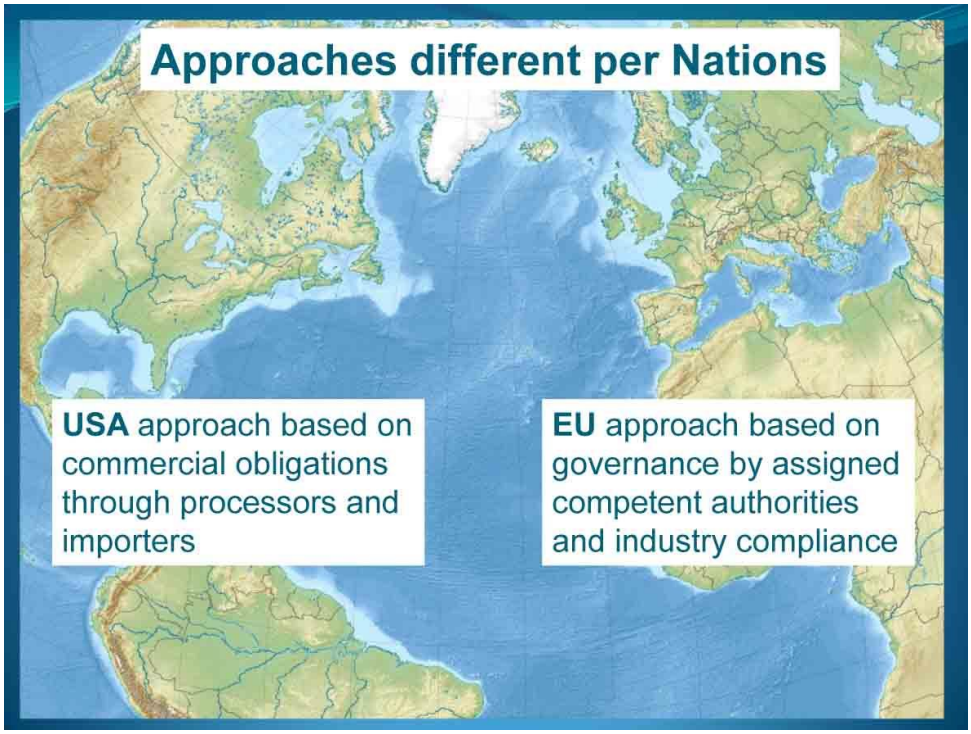
1. Dr. Steve Otwell, University of Florida.

Proven approach for 18 years

Over 25,000 certified participants across every State in the nation, every USA territory, and every seafood and aquaculture producing nation exporting to the USA

Currently provided by over 250 qualified instructors from academic, regulatory and commercial program about the world. Includes over 40 international instructors

Approaches different per Nations



USA approach based on commercial obligations through processors and importers

EU approach based on governance by assigned competent authorities and industry compliance

Indonesia's approach ?

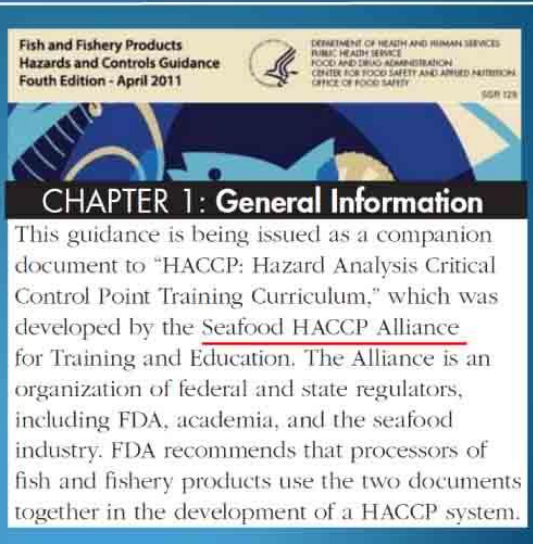
SHA courses have been conducted in Indonesia, but currently no qualified Seafood HACCP Alliance qualified instructors located in Indonesia

SHA's key to success .... Recognition!

Anchored in the 100 + year professional organization, ***Association of Food and Drug Officials***

Recommended by the primary leading authorities for seafood and aquaculture commerce in the USA

Key to success ..... Recognition!


Fish and Fishery Products
Hazards and Controls Guidance
Fouth Edition - April 2011

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION
CENTER FOR FOOD SAFETY AND APPLIED NUTRITION
OFFICE OF FOOD SAFETY

SSR 128

CHAPTER 1: **General Information**

This guidance is being issued as a companion document to "HACCP: Hazard Analysis Critical Control Point Training Curriculum," which was developed by the Seafood HACCP Alliance for Training and Education. The Alliance is an organization of federal and state regulators, including FDA, academia, and the seafood industry. FDA recommends that processors of fish and fishery products use the two documents together in the development of a HACCP system.

Expected by a 'Dual Audience'

Commercial Sector

Regulatory Authorities

Required across all levels of commerce and as prior training for inspectors

Immediately available for Indonesia

- **Recognized Training Materials**
  - HACCP and Sanitation Manuals (7 languages)
  - Standard Classroom Courses
  - Internet Courses
  - Trainer Courses

- **Certification Program** issued and recorded in AFDO
- **Website** support thru three outlets (AFDO, Sea Grant & UCDavis)
- Innovative support thru **Webinars, DVDs, and ATPs**
- Qualified Instructors and Course Approvals

Recognized Training Materials

FDA's Hazards Guide

SHA's HACCP Manual

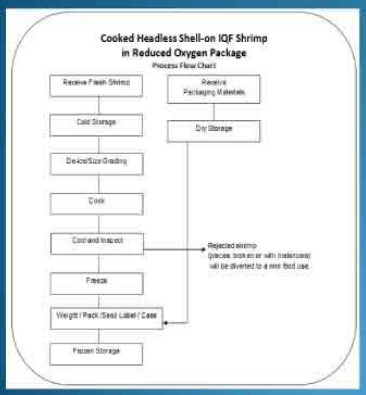
SHA's Sanitation Manual

Available online or purchase bound copies


Recognized Training Materials
TABLE 3-2
POTENTIAL VERTEBRATE SPECIES-RELATED HAZARDS
TABLE 3-4
POTENTIAL PROCESS-RELATED HAZARDS


Recognized Training Materials
Translations possible & encouraged
RUSSIA
KAZAKHSTAN
MONGOLIA
Harbin
Urumqi
BEIJING
CHINA
Qingdao
Seoul
Shanghai
Delhi
Chengdu
Wuhan
INDIA
Fuzhou
Guangzhou
Hong Kong
Indian Ocean
South China Sea
Bangkok
SHA Manual
Slide 6
What is the frequency of monitoring?
Slide 7
Side by Side Translations

Recognized Training Materials



Classroom & Internet formats

- Manual in " *How to format* "
- Model HACCP Plans
- Practical Exercises
- References

Recognized Training Materials

Self-Taught Internet Format accompanied with Segment 2 Support Courses

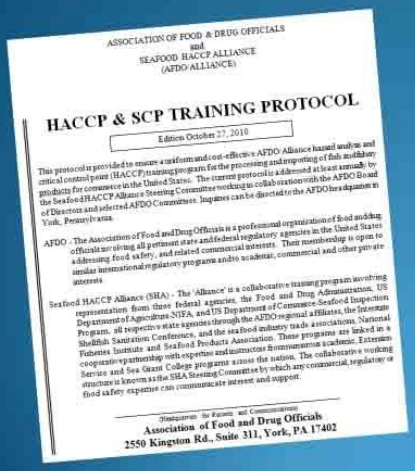
This course is managed by New York Sea Grant, Cornell

Cooperative Extension and the National Seafood HACCP Alliance.

HACCP
Hazard Analysis and Critical Control Point
Training and Education

Module 1: Introduction to HACCP	Module 2: Prerequisite Programs	Module 3: Preliminary Steps to HACCP	Module 4: Seafood Safety Hazards
Module 5: Hazard Analysis	Module 6: Critical Control Points	Module 7: Critical Limits	Module 8: Critical Control Point Monitoring
Module 9: Corrective Actions	Module 10: Verification Procedures	Module 11: Record Keeping Procedures	Module 12: FDA Seafood HACCP Regulation

Recognized Training Materials



ASSOCIATION OF FOOD & DRUG OFFICIALS
and
SEAFOOD HACCP ALLIANCE
(AFDO/ALLIANCE)

HACCP & SCP TRAINING PROTOCOL

Edition October 27, 2010

This protocol is provided to ensure a uniform and cost-effective AFDO/ Alliance based analysis and critical control point (HACCP) training program for the processing and importing of fish and fishery products for commerce in the United States. The current protocol is addressed at least annually by the Seafood HACCP Alliance Steering Committee working in collaboration with the AFDO Board of Directors and selected AFDO Committees. Inquiries can be directed to the AFDO headquarters in York, Pennsylvania.

AFDO - The Association of Food and Drug Officials is a professional organization of food and drug officials involving all pertinent state and federal regulatory agencies in the United States addressing food safety, and related commercial interests. Their membership is open to similar international regulatory programs and to academic, commercial and other private interests.

Seafood HACCP Alliance (SHA) - The 'Alliance' is a collaborative training program involving representation from three federal agencies, the Food and Drug Administration, US Department of Agriculture-NIFA, and US Department of Commerce-Seafood Inspection Program, all respective state agencies through the AFDO regional affiliates, the Interstate Shellfish Sanitation Conference, and the seafood industry trade associations, National Fisheries Institute and Seafood Products Association. These programs are linked in a cooperative/partnership with expertise and instructors from numerous academic, Extension Service and Sea Grant College programs across the nation. The collaborative working structure is known as the SHA Steering Committee by which any commercial, regulatory or food safety expertise can communicate interest and support.

Distributed by: Exams and Communications
Association of Food and Drug Officials
2550 Kingston Rd., Suite 311, York, PA 17402

Conduct annual **Train-the-Trainer** Courses for "Qualified Instructors"

Next TTT course set for October 2013 in Orlando, Florida

Certification Program by AFDO

SEAFOOD HACCP ALLIANCE

in cooperation with

THE ASSOCIATION OF FOOD AND DRUG OFFICIALS

present this

Certificate of HACCP Course Completion

to

having completed the Association of Food and Drug Officials/Seafood HACCP Alliance "Basic Course" in seafood Hazard Analysis and Critical Control Point theory and practical application. This course, developed through a National sea Grant College Program project, contained the core training manual and curriculum developed by the Seafood HACCP Alliance to teach HACCP concepts for food safety. This curriculum referenced and incorporated recommendations and concepts from the National Advisory Committee on Microbiological Criteria for Foods, the U.S. Food and Drug Administration's Fish and Fishery Products Hazards and Control Guide, the U.S. Food and Drug Administration's mandatory seafood HACCP regulations (21 CFR, Part 123), and various HACCP models prepared by the governmental agencies, trade associations, academia and individuals having expert knowledge of the concepts and application of HACCP. This course satisfies the mandatory training requirement contained in 21 CFR, part 123.10.

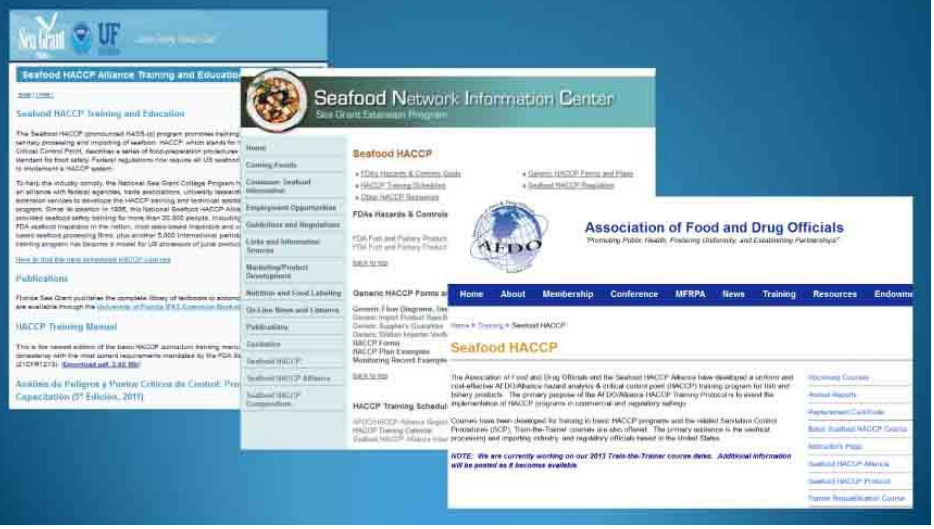
Certificate Number

Association of Food and Drug Officials (AFDO)
In conjunction with <AFDO/Region>

Training Location and Date

AFDO issues and maintains records for certificates of course completions and qualified instructors

Website Support



Website Support

UPDATE GUIDANCE

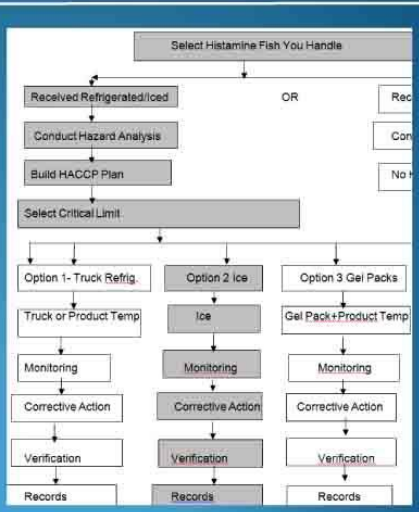
Ciguatera Fish Poisoning

March 2013

Webinars, DVD's and new ATP's

ATP's
Applied Training
Pods

Support for
persistent problems
or confused issues



SHA Keys to Success ..... KISS

Seafood HACCP Alliance (SHA)

SHA Steering Committee ------- AFDO

Editorial Team
Train-the-Trainer Team
Evaluations Team
Publications Team

Training Protocol
Certifications
Records
Communications

Simply Works !

Future Plans

- More Training Pods (ATP's; persistent issues)
- More Internet Courses & Electronic Platforms
- More International Courses & Translations
- More liaison with others

APEC INDONESIA 2013

Future Plans in Indonesia ?

SHA courses have been conducted in Indonesia, but currently there are no qualified Seafood HACCP Alliance qualified instructors located in Indonesia

Recommendations for Indonesia

The Seafood HACCP Alliance stands as a proven approach that can be used and referenced to **empower** food safety approaches across Indonesia

Recommendations for Indonesia

1. **Seafood HACCP Alliance** offers a proven educational/training program with recognized support and materials that are immediately available to **empower Indonesia** with an effective response with current food safety standards for international commerce of seafood and aquaculture products

Recommendations for Indonesia

2. Indonesia could advance a similar training program as used by the Seafood HACCP Alliance, but assure inclusion of guidelines from numerous nations (e.g., Europe, Australia and USA)

Thank you for your concerns in assuring seafood can remain the safest source of muscle protein eaten in the world

Steve Otwell, Surabaya, April 2013

2. Ms Jongkolnee Vithayarungruangsri, Thailand

Workshop on
Educating SMEs on Food Safety Standards

10 April 2013
Surabaya, Indonesia

Presented by
Ms Jongkolnee Vithayarungruangsri
Director, Bureau of Food Safety Extension and Support
Ministry of Public Health, THAILAND
Email: foodsafety@moph.mail.go.th

THAILAND'S EXPERIENCES TO EMPOWER SMES

THAILAND'S EXPERIENCES TO EMPOWER SMES

- **Appropriate Communication and Training Strategy in Enhancing SMEs Capacity Building:**
  - views or experience on how to develop appropriate communication and training strategy in enhancing SMEs capacity building.
  - Is there any specific requirements needed in developing training program for SMEs?
  - What kind of specific training materials should be given to SMEs? Major subjects for SMEs training?

SME Definition in Thailand

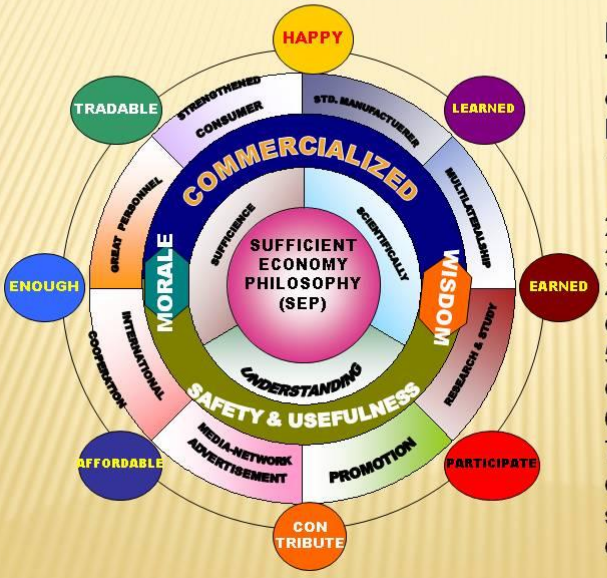
2 groups of SMEs market: Micro & Small Business and Medium Business

Micro & Small	# of Employee	Fixed Assets (USD)
Manufacturing	<= 50	<= 1.45M
Trading - Wholesaling	<= 25	<= .45M
Trading - Retailing	<= 15	<= 0.87M
Service	<= 50	<= 1.45M

Medium	# of Employee	Fixed Assets (USD)
Manufacturing	>50 - 200	>1.45 - 5.80M
Trading - Wholesaling	>25 - 50	>1.45 - 2.90M
Trading – Retailing	>15 - 30	>0.87 - 1.74M
Service	>50 - 200	>1.45 - 5.80M

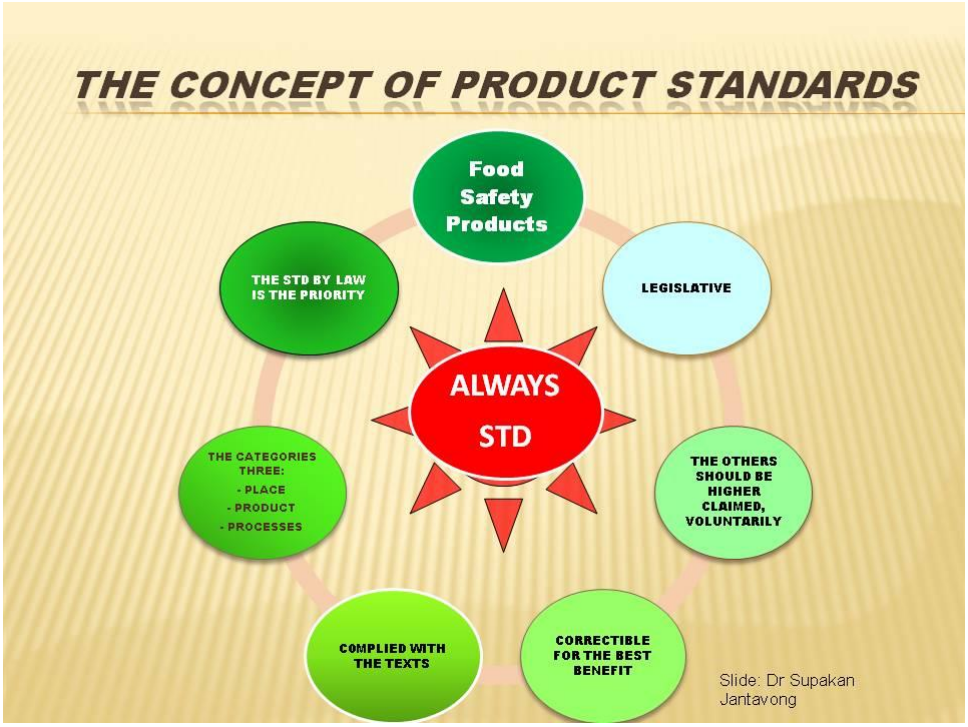
Remark: SMEs Definition from OSMEP (Office of Small and Medium Enterprises Promotion)

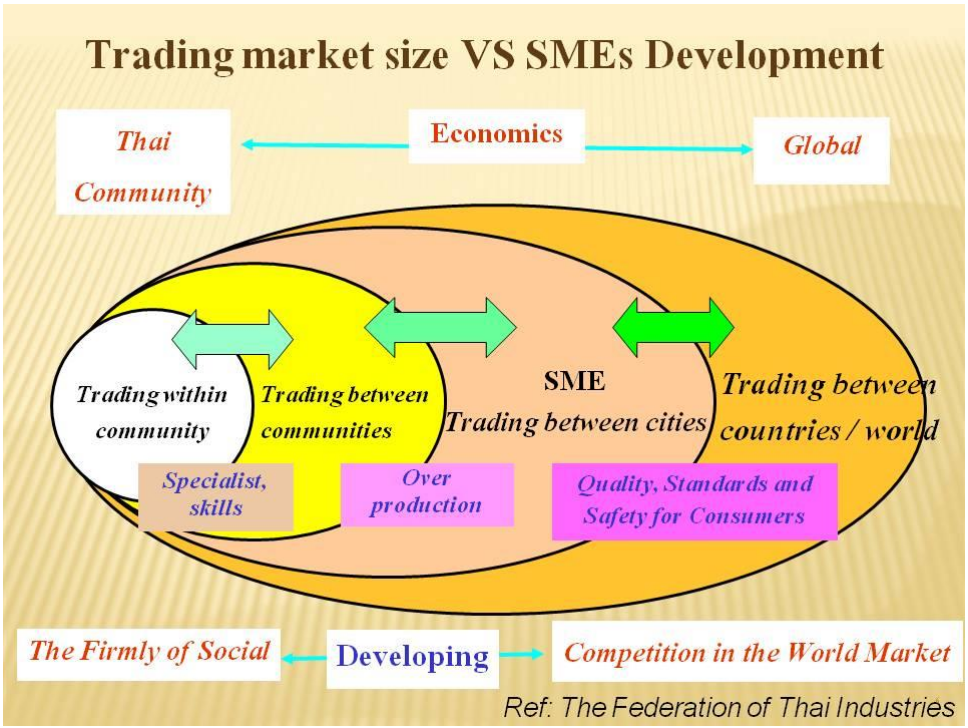
SEP-PRODUCT SAFETY RELATIOSHIP TO CORPORATE SUSTAINABILITY



National Philosophy To enhance SMEs capacity in Thailand By the King,1997

1. Appropriate use of technology (inexpensive)
2. Ability to manage
3. Focus on short term profits
4. Honesty in entire business operation
5. Emphasis on risk diversification
6. Focus on risk managemer
7. Responding to local, domestic first, export the second (enough for consumption)

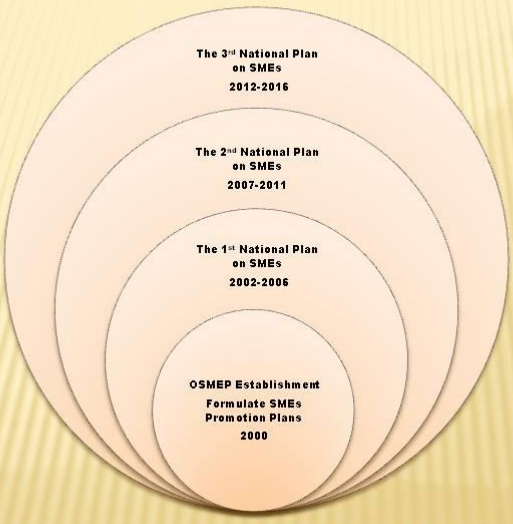

THE CONCEPT OF PRODUCT STANDARDS
Food Safety Products
LEGISLATIVE
THE OTHERS SHOULD BE HIGHER CLAIMED, VOLUNTARILY
CORRECTIBLE FOR THE BEST BENEFIT
COMPLIED WITH THE TEXTS
THE CATEGORIES THREE:
- PLACE
- PRODUCT
- PROCESSES
THE STD BY LAW IS THE PRIORITY
ALWAYS STD
Slide: Dr Supakan Jantavong


Trading market size VS SMEs Development
Thai Community
Economics
Global
Trading within community
Trading between communities
SME
Trading between cities
Trading between countries / world
Specialist, skills
Over production
Quality, Standards and Safety for Consumers
The Firmly of Social
Developing
Competition in the World Market
Ref: The Federation of Thai Industries

ORGANIZATION TO SUPPORT SMES - FOOD BUSINESS

- **Ministry of Industry**
  - Office of Small and Medium Enterprises Promotion (OSMEP)
  - Institute of Food
- **Ministry of Agriculture and Cooperatives**
- **Ministry of Interior : Local Authorities**
- **Ministry of Public Health (MOPH)**
  - ThaiFDA : Primary GMP, Food Safety Standards
  - Provincial Health Offices : Official Inspection, Certification and Registration
  - Department of Health : Restaurant/ Food Service Establishment – GHP, Sanitation

DEVELOPMENT PLAN FOR SMES IN THAILAND



OSMEP = Office of Small and Medium Enterprises Promotion

CAPACITY BUILDING FUND TO CREATE AND PROMOTE SMART SMES

- Small and Medium Enterprises (SMEs) are major mechanism driving force in Thai economy. In the competitive world, external factors have been changed all the time that may give effect to SMEs' businesses.
- Therefore, entrepreneurs have to be quick response in order to restructure themselves and challenge situation in the market.
- Thai Enterprises will be ready to compete in domestic and international levels and grow sustainable.

CAPACITY BUILDING FUND TO CREATE AND PROMOTE SMART SMES

Objectives:

- To promote SMEs who would like to develop their businesses in areas such as IP, marketing opportunities, managerial, and business solution.
- To support and enhance their capabilities to meet international standard.
- To strengthen entrepreneurs and increase more value in their businesses, products and services.

PROSPECT TARGETS

- SMEs that have barriers in business operation such as management, accounting, financing, human resources, production, logistic and etc.
- SMEs that would like to extend and develop their businesses such as market expansion, product and service development, and etc.

Internationalization Fund

- A financial support for SMEs to expand their export markets by participating in both domestic and foreign trade fair, business matching, doing market research, and survey.

EVALUATION OF SME PROMOTION UNDER THE 2ND PROMOTION MASTER PLAN (2007 - 2011) OF THAILAND

- **1.Capacity Building**
  - According to the survey of 1,202 SMEs,concerning the acquisition of standard certification of enterprises such as Q-Mark, and ISO, the small number of SMEs applied for certification.
  - 10.7% were successfully granted international certification.
  - Four types of certification SME entrepreneurs received was quality, followed by sanitation, safety, environment, and social responsibility respectively.

***Ref**: White Paper on Small and Medium Enterprises of Thailand in 2011 Trends of 2012, Office of Small and Medium Enterprises Promotion, Ministry of Industry, Thailand.*

EVALUATION OF SME PROMOTION UNDER THE 2ND PROMOTION MASTER PLAN (2007 - 2011) OF THAILAND

- Most operations in acquiring the standard certification
  - 69.4% were encountered neither problems nor impediments.
  - 30.6% were of the opinion that "to apply for standard certification is costly",
  - entrepreneurs have inadequate knowledge, and the services regarding standard certification provided by the government sector is usually slow.

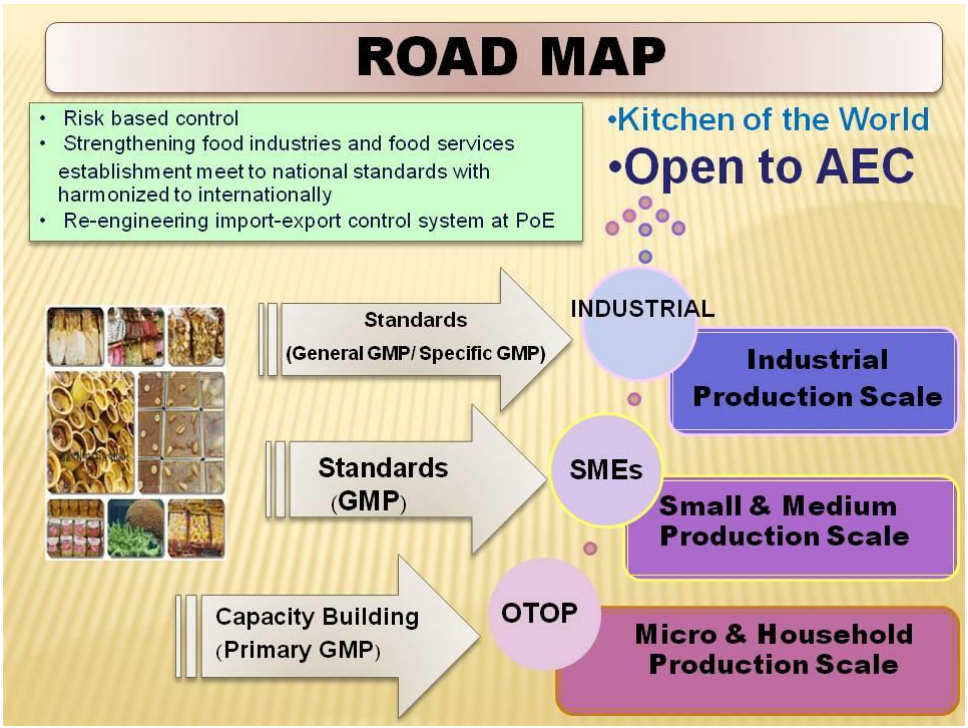
***Ref**: White Paper on Small and Medium Enterprises of Thailand in 2011 Trends of 2012, Office of Small and Medium Enterprises Promotion, Ministry of Industry, Thailand.*

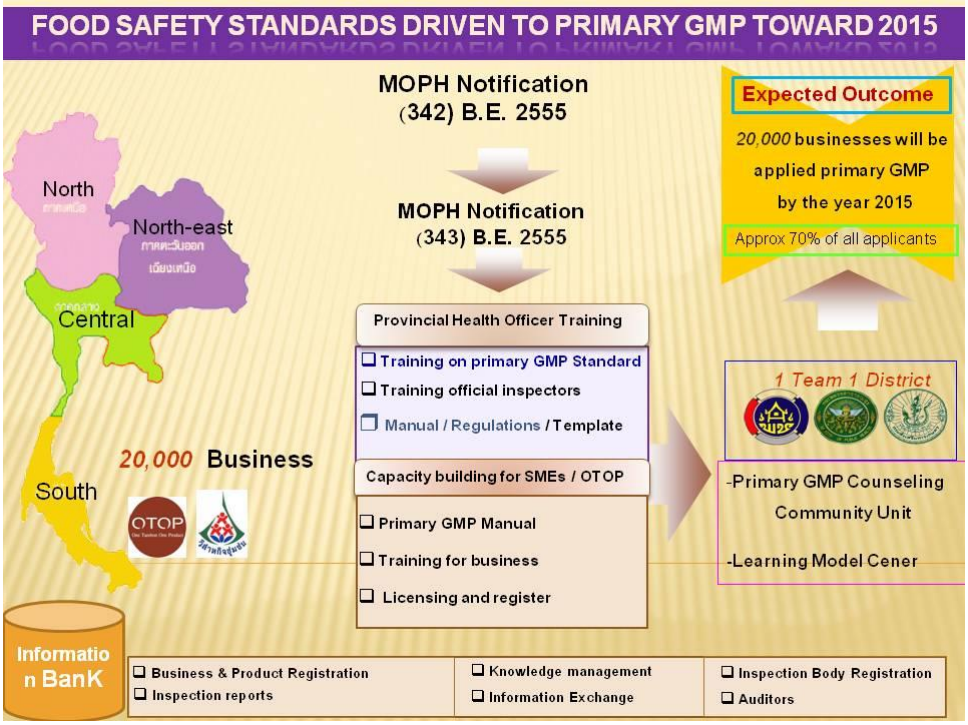
EVALUATION OF SME PROMOTION UNDER THE 2ND PROMOTION MASTER PLAN (2007 - 2011) OF THAILAND

- **2.Development of infrastructure favorable to SMEs' business operations.**
  - 1) Establishing a service center providing SMEs with consultancy and suggestions for solving problems and promoting SMEs' business operations.
  - 2) Establishing one cooperative as a buying and selling center to promote and support business operations of the community enterprise group.
  - 3) Compiling a database of logistics service providers and SME entrepreneurs in vegetable and fruit business.
  - 4) Compiling other eight community business plans.
  - 5) Providing support in terms of marketing by business matching, and the meeting for trade negotiations with neighboring countries in which 447 SMEs participated.

***Ref**: White Paper on Small and Medium Enterprises of Thailand in 2011 Trends of 2012, Office of Small and Medium Enterprises Promotion, Ministry of Industry, Thailand.*

Information from Thai FDA Programme, Ministry of Public Health, 2013





MINISTRY OF PUBLIC HEALTH NOTIFICATION ON PRIMARY GMP FOR SME FOOD BUSINESSES

(Unofficial translation)

Notification from the Ministry of Public Health

(NO 342) B.E. 2012

RE: Manufacturing Procedures, Production Equipment and Appliance, and Food Storage of Pre-packaged Processed Foods

In order to encourage consumption of clean and safe foods, it is necessary to enforce quality control of processed foods to reduce physical, chemical and biological contamination and increase standards for the manufacturing procedures of processed foods to prepare for Thailand's integration into the ASEAN Economic Community.

By virtue of the provision of Section 5, 6(7) of the Food Act B.E. 2522 (1979), which restricts personal rights and liberties of the public in conjunction with Sections 29, 33, 41, 43, and 45 of the Constitution of the Kingdom of Thailand, the Minister of Public Health, advised by the Food Committee, issues the notification as follows:

Clause 1: "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."

Clause 2: Pre-packaged processed food products shall be designated for manufacturing procedures, production equipment and appliance, and food storage.

Clause 3: Manufacturers of food products as stipulated in Clause 2 shall comply with manufacturing procedures, production and appliance, and food storage of processed foods, and pre-packaged processed food products based on the minimum requirements as designated in attachment 1 of this notification.

Inspection of food mentioned above should be followed as required according to the evaluation criteria as described in attachment 2 and 3 of this notification.

Clause 4: Importers of food products as stipulated in Clause 2 shall provide certificates of guarantee of standards for manufacturing procedures, production equipment and appliance, and food storage of processed food products and foodstuff not inferior to criteria as prescribed in attachment 1 of this notification.

Clause 5: Holders of a Food Manufacturing License, Manufacturing Number, or Food Import License who have been given permission to import food products as stipulated in Clause 2 prior to this notification become effective and do not comply with provisions as stated in Clause 3 and 4, shall improve and change their current practices to comply with the new standards as outlined by this notification within three years following the date of this notification is enforced.

Clause 6: This notification shall not apply to pre-packaged food products as stipulated in clause 2 in the case that the producer or manufacturer sells directly to the consumer.

Clause 7: This notification will be enforced when exceed 180 days from the day following its announcement of it by the Government Gazette.

Notified on 17th April B.E. 2555 (2012)

WittayaBuranasiri

(Mr. WittayaBuranasiri)

Minister of Public Health

(Published in Government Gazette Vol. 129 Special part 78 NGOR, dated 10th March B.E. 2555 (2012.)

NOTE: This English version of the notification has been translated to meet the needs of non-Thai speaking people. In case of any discrepancy between the Thai original and the English translation, the former will take priority.

Appropriate Communication and Training Strategy in Enhancing SMEs Capacity Building:

- views or experience on how to develop appropriate communication and training strategy in enhancing SMEs capacity building.

Face to Face Training--Group

Ref : Thai FDA, Ministry of Public Health, Thailand

FACE TO FACE TRAINING--GROUP

- **PART I** : SMEs Food Safety Standards Guideline (Primary GMP)
  - Law & regulations
  - How to apply
- **PART II** : The steps for practice inspection

STEP ON QUALITY CONTROL SYSTEM APPLY TO INDUSTRIES

Primary GMP for SMEs Food Safety Control - - Basic Standard

23

2005-2006

-National Policy to promote one farm one Tambon (Sub-district)

- Small farmer training center establishment

-Training for the trainers

- Support by Department of Agriculture Extension

COMMUNITY LEANING CENTER

Department of Agriculture Promotion, Sukothai University

IS THERE ANY SPECIFIC REQUIREMENTS NEEDED IN DEVELOPING TRAINING PROGRAM FOR SMES?

Guide Book

- International Standards for SMEs
- Food industrial management
- Food safety in the supply chain management
- Product development
- Practical HACCP for SMEs

Media

- Distance group learning by TV / Telecom
- Short training by academia services

E-Learning

- Curriculum in specific subject (Local language)
- Packaging design
- Logistics and food safety control
- World Marketing

THANK YOU FOR YOUR ATTENTION

By Ms Jongkolnee Vithayarungruangsri
Bureau of Food Safety Extension and Support
Ministry of Public Health, THAILAND
Email: foodsafety@moph.mail.go.th

Thanks: - Dr Supakan Jantavong, Former Senior Pharmacist of ThaiFDA
- Ms Kalayanee Deepraservong, Former Senior ThaiFDA
Adviser, Certification Body Section Central Laboratory (Thailand) Co., Ltd.
- Miss Manusavee, Bureau of Food, ThaiFDA

Reference:

-Bureau of Food, Thai FDA, ministry of Public Health
- Office of Small and Medium Enterprises Promotion, Ministry of industry
- *The Federation of Thai Industries*

Indonesian Approach to Enhance the SMEs Empowerment in Practicing Food Safety Standards

Roy Sparringa
Deputy for Food Safety and Hazardous Substance Control
National Agency for Drug and Food Control
Republic of Indonesia

Paper presented at APEC Workshop on "Best Practice in Educating Food Safety Standards to SMEs", Surabaya, Indonesia, April 10, 2013

Outline

1. Scope of food manufacturing SMEs in Indonesia
2. Indonesian government regulation on Food production SMEs
3. Current situation of SMEs in Indonesia
4. Public-Private Partnership in SME Empowerment
5. SME Empowerment programs of various organization in Indonesia

Scope of SMEs

Household Food Industry (IRTP)
Food industry which operates food business in a house using manual or semi-automatic food processing equipment

Indonesian government regulation

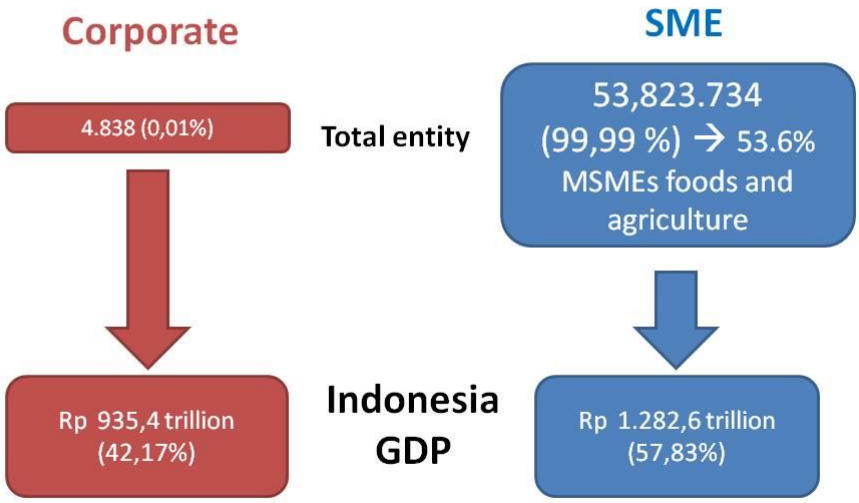
According to Government Regulation No. 28/2004 on Food Safety, Quality and Nutrition

Any processed food in retailed package produced for sale or distribution shall be pre-market evaluated for its safety and registered at NADFC

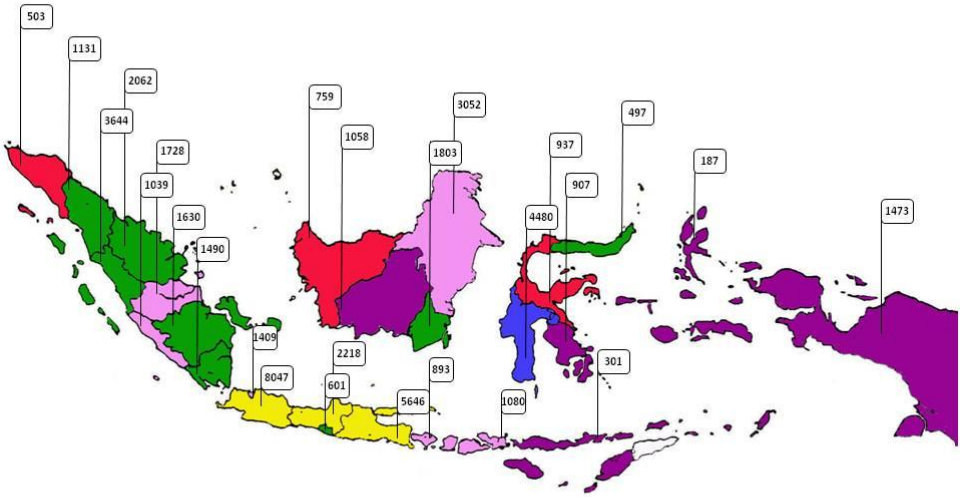
Except for processed food in retailed package produced by a household food industry (mostly SME) shall be evaluated and registered at District or City Government

NADFC was given a mandate to issue a Regulation regarding Good Manufacturing Practices for application by a Household Food Industry ..... Head of NADFC
Regulation No: HK.03.1.23.04.12.2206 year of 2012

Current situation of SMEs in Indonesia



Sumber: BPS and Dept. Cooperatives and Small and Medium Enterprises (2011)



Disribution of Household Food Industries in Indonesia

	Province	# HFI
1	Jambi	1.728
2	Sulawesi Tengah	937
3	Kep. Riau (Batam)	283
4	Kalimantan Barat	759
5	**Kalimantan Timur**	**3.052**
6	**Jawa Barat**	**8.047**
7	Papua	1.473
8	Sulawesi Tenggara	907
9	NTT	301
10	**Jawa Tengah**	**2.218**
11	DI Yogyakarta	601
12	NAD	503
13	Kalimantan Selatan	1.803
14	Bengkulu	1.039
15	Bali	893
16	NTB	1.080

	Province	# HFI
17	Sulawesi Utara	497
18	Kalimantan Tengah	1.058
19	**Jawa Timur**	**5.646**
20	DKI Jakarta	1.409
21	Sumatera Utara	1.131
22	Sumatera Selatan	1.630
23	**Riau**	**2.062**
24	**Sumatera Barat**	**3.644**
25	Banten	180
26	**Sulawesi Selatan**	**4.480**
27	Gorontalo	95
28	Maluku	144
29	Bangka Belitung	669
30	Maluku Utara	43
31	Lampung	1.490
Total		**49.802**

Conditions of Household Food Industry in 2011

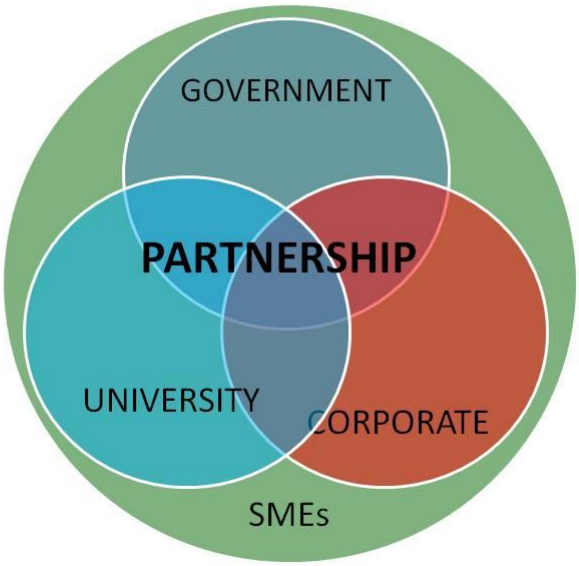
	Number of HFI
Number of HFI reported	**49.802**
Number of trained HFI in food safety	**39.056**
Number of Certificates given to HFI by the District Government	**32.598**
Audit Results on 8,031 HFI's premises	
Good Conditions	**1.075 (13.4%)**
Comply with minimum food safety requirements	**5.835 (72.6%)**
Need improvement	**1.121 (14.0%)**

Public-Private Partnership

Strategy:

- Promoting
- Nurturing
- Sustaining

partnership

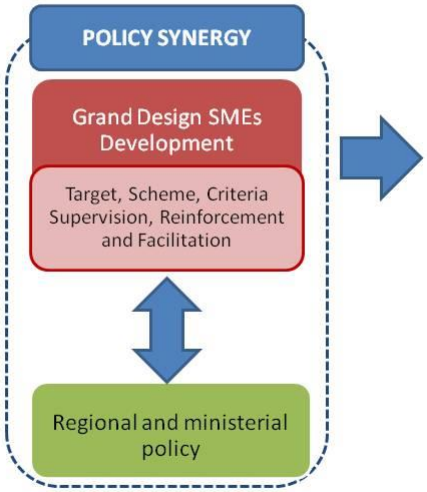


Empowerment Programs of SMEs in Indonesia

1. Government Initiatives
2. University programs
3. Private sector/corporate responsibility

SME Empowerment Program by State Ministry of National Development Planning/BAPPENAS

INTEGRATIVE APPROACH

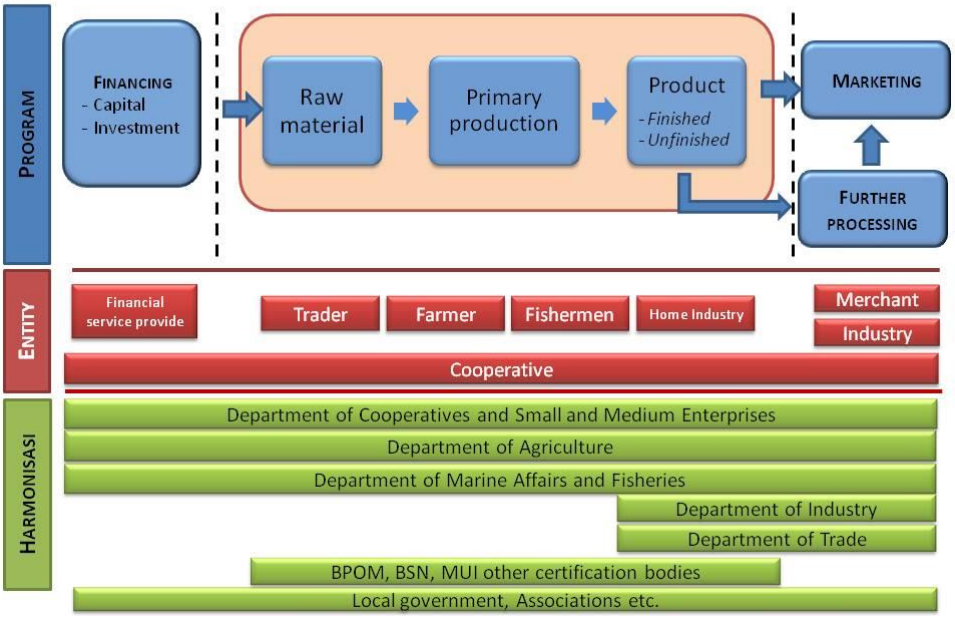


Role	Department
Coordination	
Planning	Bappenas
Implement	Coord. Ministry for Economy
Implementation	
Dept. of Cooperatives and Small and Medium Enterprises	
Primary	Dept of Agriculture
	Dept of Marine Affairs and Fisheries
Secondary	Dept of Industry
Tertiary	Dept of Trade
	Dept of Tourism and Creative Economy
	Investment Coordinating Board
Supporting	
Energy	Dept of Energy and Mineral Resources
Technology	Dept of Research and Technology, BPPT, LIPI
Finance	Bank of Indonesia
Standards	NADFC, BSN

PP 38/2007 legislation on Distribution of Governance,
Regional government coordinates and implements local SME empowerment

SME Empowerment Program by BAPPENAS

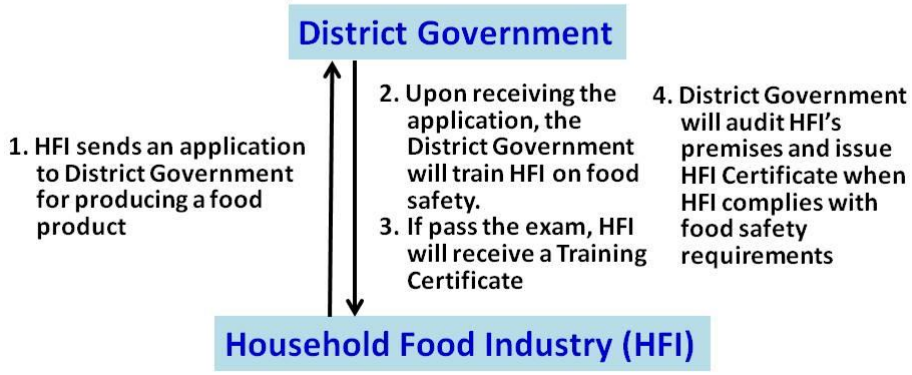
INTEGRATED FACILITATION



NADFC Approach to SME Empowerment

How do we develop a scheme for certification of Household Food Industry by the district government?

NADFC issued a regulation (No. HK.03.1.23.04.12.2205 year 2012) on Guidelines on Certification of Household Food Production, as follows:



TYPE OF FOOD PERMITTED FOR HOUSEHOLD INDUSTRY PRODUCTION

01 HASIL OLAHAN DAGING KERING (DRIED PROCESSED MEAT)
Abon Daging (Dried Shredded Meat)
Dendeng Daging (Dried Beef)
etc.

02 HASIL OLAHAN IKAN KERING (DRIED PROCESSED FISH)
Abon Ikan (Bonito)
Cumi Kering (Dried Squid)
Ikan Asin (Dried Salted Fish)
etc.

03 HASIL OLAHAN UNGGAS KERING (DRIED PROCESSED POULRY)
Abon Unggas (Dried Shredded Poultry)
Telur Asin (Salted Egg)
etc.

04 SAYUR ASIN DAN SAYUR KERING (VEGETABLE PICKLES AND DRIED VEGETABLE)
Acar (Pickles)
Jamur Asin / Kering (Salted or Dried Mushroom)
etc.

05 HASIL OLAHAN KELAPA (PROCESSED COCONUT)
06 TEPUNG DAN HASIL OLAHNYA (FLOUR AND ITS PRODUCTS)
07 MINYAK DAN LEMAK (OILS AND FATS)
08 SELAI, JELI DAN SEJENISNYA (JAM, JELLY AND RELATED PRODUCTS)
09 GULA, KEMBANG GULA DAN MADU (SUGAR, CANDY AND HONEY)
10 KOPI, TEH, COKLAT KERING ATAU CAMPURANNYA (COFFEE, TEA, DRIED COCOA OR MIXED PRODUCTS)
11 BUMBU (SEASONINGS)
12 REMPAH-REMPAH (SPICES)
13 MINUMAN RINGAN, MINUMAN SERBUK (SOFT DRINKS, BEVERAGE POWDER)
15 HASIL OLAHAN BIJI-BIJIAN DAN UMBI (PROCESSED CEREALS AND TUBERS)
16 LAIN-LAIN ES (OTHER ICES)

NADFC Regulation to Support the Empowerment of SMEs (Household Food Industries in particular) in the District Areas:

1. Head of NADFC Regulation No: HK.03.1.23.04.12. 2206 year 2012 on Good Manufacturing Practices for application by a Household Food Industry

2. Head of NADFC Regulation No: HK. 03.1.23.04.12. 2205 year 2012 on Guidelines on Certification of Household Food Production

3. Head of NADFC Regulation No: HK. 03.1.23.04.12. 2207 year 2012 on Inspection Procedures of Household Food Industry Production Facility

Advocacy of NADFC Regulation on Household Food Industry to District Government

Other Activities to Support the Empowerment of SMEs (Household Food Industries in particular) in the District Areas:

1. Training District Food Inspector through various methods including e-Learning
2. Training Food Safety Extension Workers
3. Training Auditor for Food Safety Star Award Program
4. Certification of Qualified District Food Inspector and Food Safety Extension Workers
5. Technical Assistance for SMEs
6. Grading and Classification of SMEs
7. **Promotion of Food Safety Star Award Program**

SME empowerment program in universities

- Approach:
  - **Technology transfer (product/process)**
  - **Training/capacity empowerment**
  - Marketing (limited)
  - Capital (limited)
- Running program:
  - Business incubator
  - Outreach/extension programs/education

SME Empowerment through Corporate Responsibility

- Approach:
  - Technology transfer (product/process) (limited)
  - Training/capacity empowerment (limited)
  - **Marketing**
  - **Capital**
- Running program:
  - Supporting associations of food vendor
  - Supplying good & safe raw material/ingredients
  - Provide grant/loan for establishing hygienic preparation equipment/unit

Thank you

3. Ms. Boon Yee, ILSI Singapore

Building Capacities in Food Safety Risk Analysis

Approaches for Regulators and SME's

Boon Yee Yeong
Executive Director

April 10, 2013

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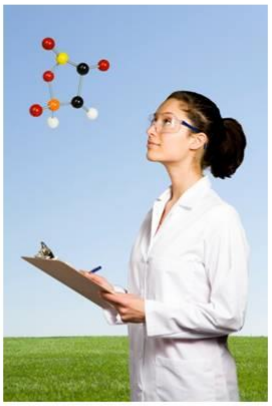
The International Life Sciences Institute (ILSI) is a nonprofit, worldwide organization whose mission is to provide science that improves public health and well-being.

Food Safety

Risk Assessment

Nutrition

Environment



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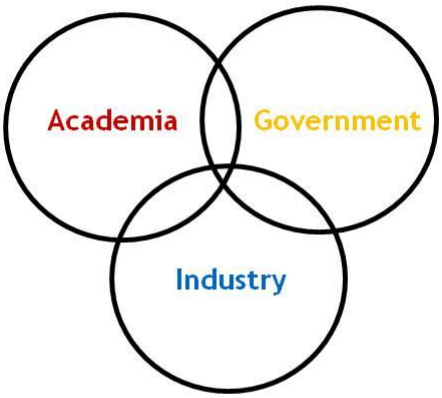
Established 1978 …

ILSI provides a neutral and strategic platform for stakeholders' dialogues, scientific updates, and consensus forged through **tripartite collaboration**



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ILSI's Global Network

- ILSI Argentina
- ILSI Brasil
- ILSI Europe
- ILSI ILSI Focal Point China
- ILSI India
- ILSI Japan
- ILSI Korea
- ILSI Mexico
- ILSI North Africa and Gulf Region
- ILSI North America
- ILSI North Andean
- ILSI South Africa
- ILSI South Andean
- **ILSI Southeast Asia Region**
- ILSI Health & Environmental Sciences Institute

ILSI Research Foundation

- Center for Risk Science Innovation & Application *(RSI)*
- Center for Environmental Risk Assessment of GM Crops *(CERA)*
- Center for Integrated Modeling of Sustainable Agriculture & Nutrition Security *(SIMSAN)*
- Center for Health Promotion *(CHP)*
- ILSI International Food Biotechnology Committee *(IFBiC)*

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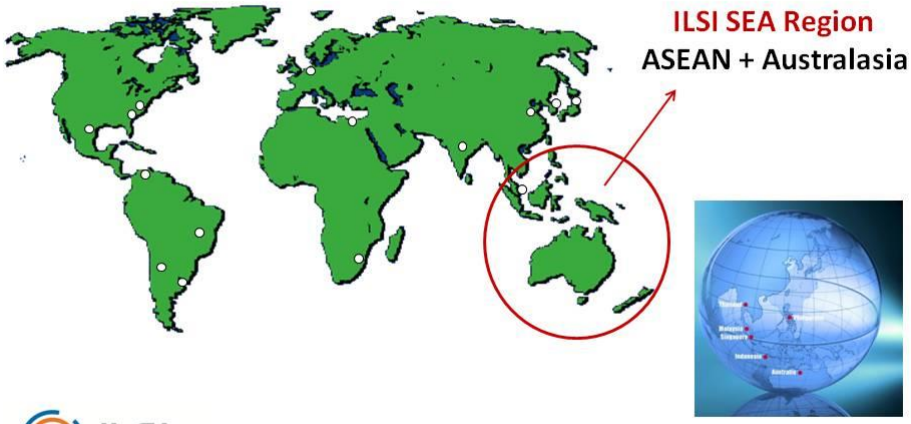
ILSI … A Global Network



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Contribution of SMEs in ASEAN

SMEs form the backbone of the ASEAN economy[1]

- Comprise 90% of all types of enterprises within individual ASEAN countries
- Provide 75-95% of employment opportunities
- Contribute to significant share of national exports, for eg. Indonesia (11%) Malaysia (15%), Singapore (16%), Thailand (10-26%), Vietnam (20%)

- F&B manufacturing sector are a significant proportion of the total SMEs in many ASEAN countries
  - Malaysia[2]: 15%; Thailand[3]: 28%; Vietnam[4]: 4%

- Largest proportion of the food and beverage manufacturing sector in many ASEAN countries
  - Malaysia[2]: 90%; Philippines[5]: 34%; Thailand[3]: 78%

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1. Tambunan, 2008; 2. Saleh & Ndubisi, 2006; 3.Chittithaworn et al, 2011; 4. Tran, Le & Nguyen, 2007; 5. Aldaba 2008;

Challenges Faced by SMEs in ASEAN

Overall Challenges Faced by Most SMEs in ASEAN[1]:

- Limited capital and access to credit
- Lack of modern technologies and human resources
- Difficulty in procurement of raw materials (price, supply, and quality)
- Lack of access to information (market, price, etc.)
- Lack of infrastructures, especially in rural areas
- Difficulty in complying with regulations

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1. Tambunan, 2009

Challenges Faced by SMEs in ASEAN

How do these challenges impact SMEs in the food sector to ensure food safety and comply with food safety requirements ?

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1. Tambunan, 2009

Food Safety Challenges for SMEs in ASEAN

- Limited capital and access to credit
- Lack of modern technologies and human resources
- Difficulty in procurement of raw materials (price, supply and quality)

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Food Safety Challenges for SMEs in ASEAN

- **Limited capital and access to credit**
  - SMEs are resource constrained and investment in food safety systems can be a significant cost for many of them
- **Lack of modern technologies and human resources**
  - SMEs do not always have dedicated staff working on food safety nor Access to latest technological innovation to latest technological innovations that can improve food safety or more advance analytical testing equipment

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Food Safety Challenges for SMEs in ASEAN

- **Difficulty in procurement of raw materials (price, supply and quality)**
  - SMEs may be forced to use lower quality or substandard raw ingredients if stable supply of affordable, quality ingredients are unavailable

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Food Safety Challenges for SMEs in ASEAN

- Lack of access to information (market, price, etc.)
- Lack of infrastructures, especially in rural areas
- Difficulty in complying with regulations

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Food Safety Challenges for SMEs in ASEAN

- **Lack of access to information (market, price, etc etc.)**
  - Lack of information about the importance of food safety may influence the decision whether to invest in food safety systems
  - Lack of information about standards and regulations may limit expansion (especially to other markets) and reduce compliance within countries

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Food Safety Challenges for SMEs in ASEAN

- **Lack of infrastructures, especially in rural areas**
  - Premises and equipment for food production (e.g. hygienic design) and transportation of food to retail premises (e.g. maintaining cold chain) may not always be ideal
- **Difficulty in complying with regulations**
  - Food standards that are too restrictive
  - Too many standards and regulations for food safety may reduce compliance as cost can get too high

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How Do We Address these Challenges?

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What is Risk Analysis?

- A systematic, transparent, evidence-based approach to food safety control
- Aims to *maximize* public health protection while *minimizing* impact on food supply, food trade and ultimately food security
- The framework helps to prioritize and address food safety *RISKS* rather than *HAZARDS*
- Food control measures are to be primarily based on the outcomes of scientific risk assessment whenever possible

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Risks vs Hazards?

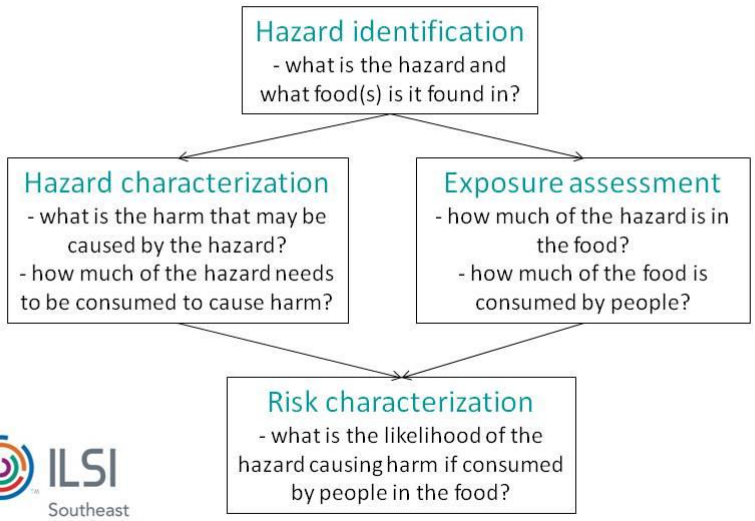
Hazard

Risk

Components of Risk Analysis

Source: FAO/WHO (http://www.who.int/foodsafety/micro/riskanalysis/en/)

Risk Assessment



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Risk Management

Actions that are taken by the different responsible stakeholders to manage food safety risks

- Government Authorities
  - Determine, in consultation with other stakeholders, the appropriate level of protection (ALOP) or acceptable level of risk to a society
  - Implement specific policies and measures to achieve the ALOP
- Food Producers
  - Implement necessary food safety procedures and systems (eg. GAP, GMP, HACCP, etc.), which ultimately helps to achieve the ALOP

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Risk Communication

Interactive exchange of information about food safety risks between risk assessors, risk managers, and all other interested stakeholders

- Risk communication strategies determined by
  - who is the target audience for the communication?
  - what kind of information are needed by the target audience?
  - when should such communication be done? (crisis vs 'peace time')

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Why is Risk Analysis Relevant to Food Safety for SMEs?

Food safety standards set based on risk analysis are more likely to be achievable by SMEs because:

- Standards are only set if they help address real food safety RISKS and not based on general perceptions and concerns about HAZARDS, reducing overall cost of compliance for SMEs
- Transparent process and interactive communication allows for SMEs to understand the food safety problems and also provide their feedback to find feasible solutions in view of resource and technology limitations

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Why is Risk Analysis Relevant to Food Safety for SMEs?

Other benefits to SMEs for food safety controls based on risk analysis

- Resources freed up could be used by SMEs to invest in food safety system and for improving technology and infrastructure

- Food safety policy makers can target capacity building efforts to specific SMEs affected b y identified food safety risks

- Well managed food chain also increases supply of good quality raw materials for food production at lower cost

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Challenges for Implementing Risk Analysis in ASEAN?

Although food safety controls based on risk analysis would be an ideal situation, many challenges still exist for ASEAN

- Lack of legal frameworks in some countries that incorporate risk analysis principles to guide development of food control systems
- Lack of awareness among higher level policymakers or political leaders on the importance of risk analysis for food safety
- Lack of technical human resources to implement food safety based on risk analysis principles, e.g. expertise in risk assessment
- lack of access to scientific data to undertake risk assessments, where either data needs to be developed or already exists but not shared

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* Risk analysis can still be implemented with existing food laws but it would help if legal mandate is provided to facilitate implementation

Building Risk Analysis Capacities in ASEAN

ILSI SE Asia Region has been supporting infrastructure and capacity building for implementing risk analysis in ASEAN countries, including

- ASEAN Food Safety Standards Database

- Project on Strengthening ASEAN Risk Assessment Capacity
  Food Consumption Data

- Project on ASEAN Risk Profiles for Contaminants in Food

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ASEAN Food Safety Standards Database

- Collation of ASEAN Food Safety Standards for food additives in a single repository in same language (English) that can be accessed for information (may reduce SME information gap for market access and compliance)

- Primary purpose is however for ASEAN food safety authorities to use for identification of food additive standards that can be harmonized in the region based on risk analysis approach

- Officially adopted by ASEAN Consultative Committee on Standards and Quality (ACCSQ) Prepared Foodstuff Product Working Group (PFPWG) at the 15th PFPWG Meeting in Yogyakarta, Indonesia

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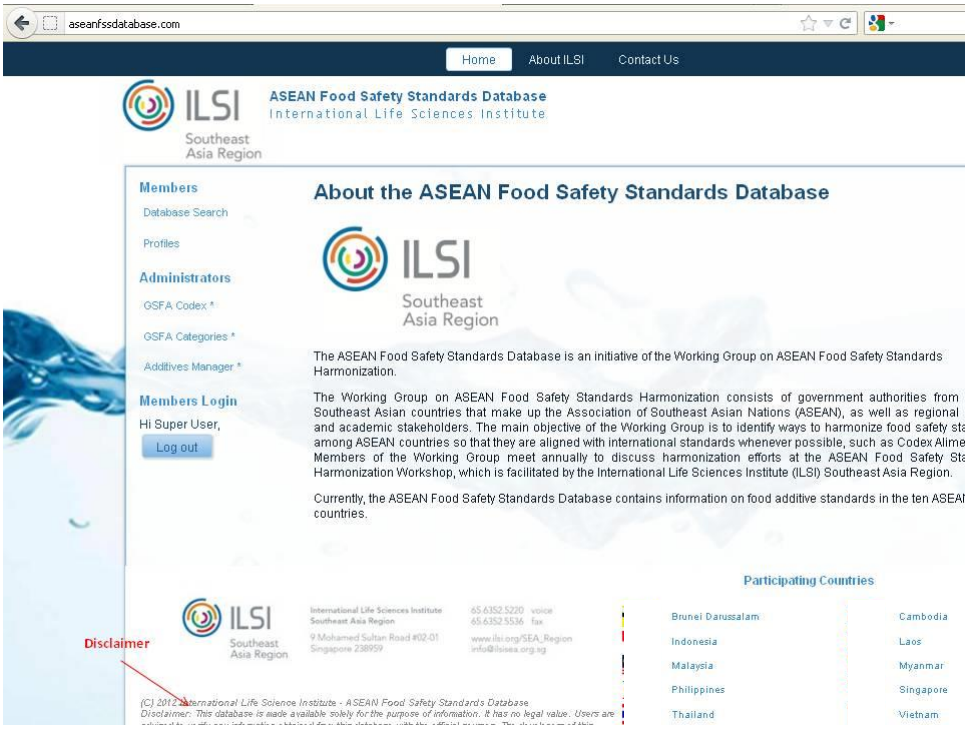
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GSFA Codex *
GSFA Categories *
Additives Manager *
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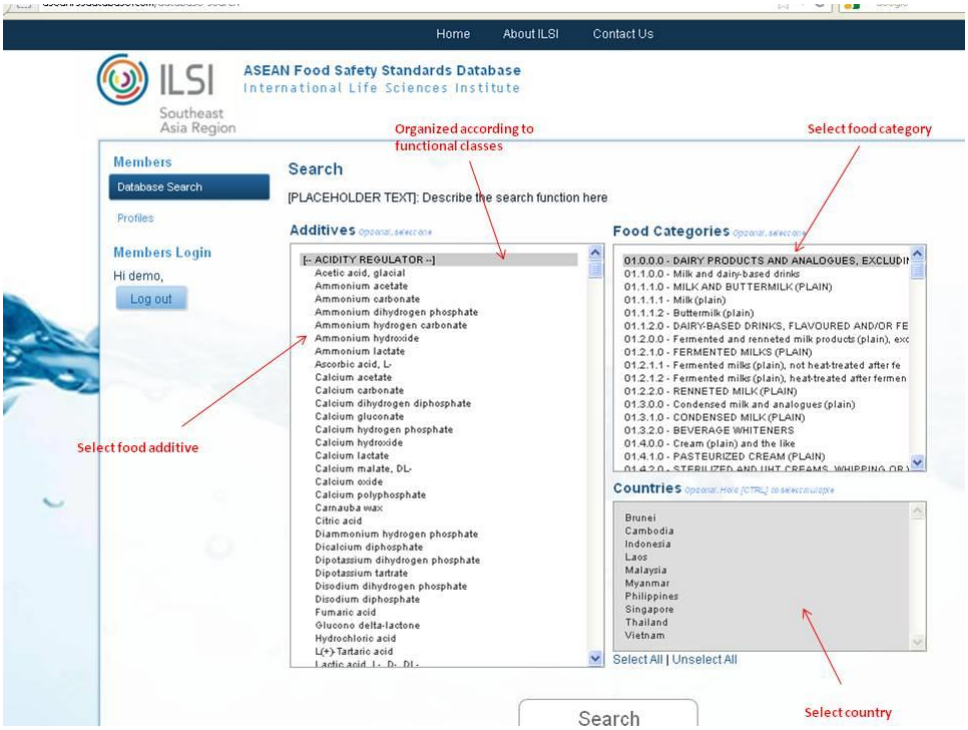
Hi Super User,
Log out
About the ASEAN Food Safety Standards Database
The ASEAN Food Safety Standards Database is an initiative of the Working Group on ASEAN Food Safety Standards Harmonization.
Currently, the ASEAN Food Safety Standards Database contains information on food additive standards in the ten ASEAN countries.
Participating Countries
Brunei Darussalam
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Thailand
Vietnam
Disclaimer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Organized according to functional classes
Select food category
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Search
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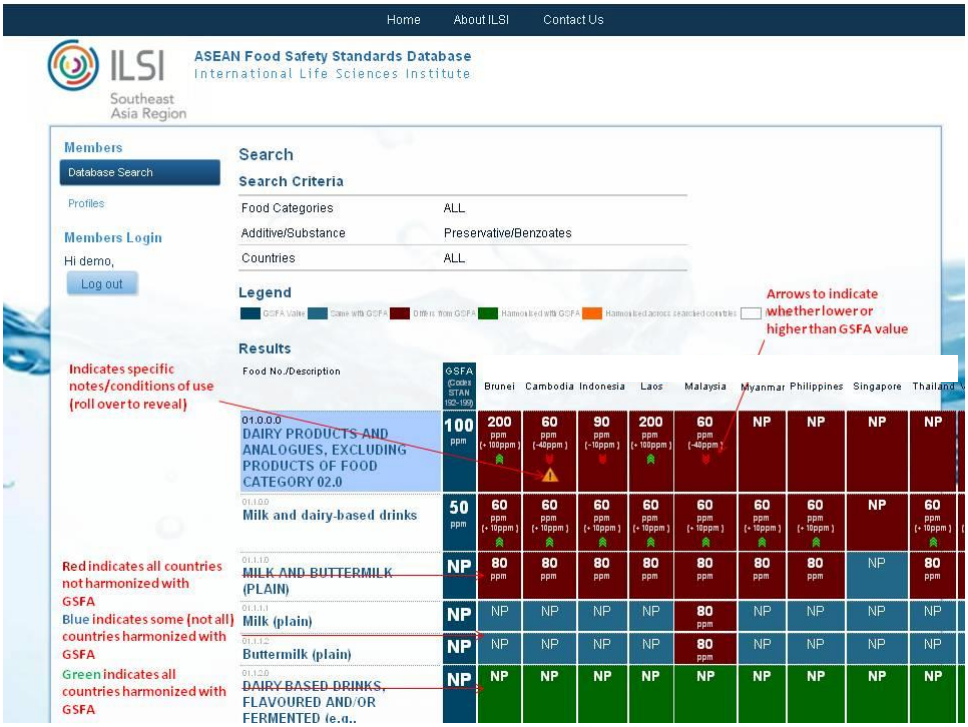
Additives
Food Categories
Countries
Select All | Unselect All
Search
Select food additive
Select country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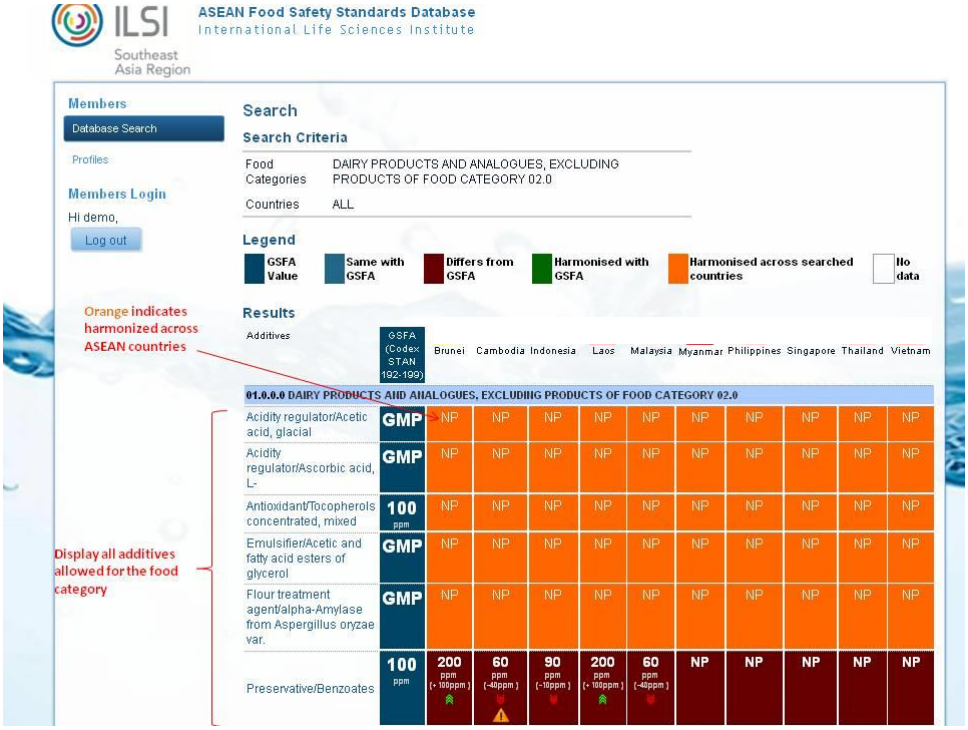
Search
Search Criteria
Food Categories ALL
Additive/Substance Preservative/Benzoates
Countries ALL
Legend
Arrows to indicate whether lower or higher than GSFA value
Results
Indicates specific notes/conditions of use (roll over to reveal)
Red indicates all countries not harmonized with GSFA
Blue indicates some (not all) countries harmonized with GSFA
Green indicates all countries harmonized with GSFA
Food No./Description
GSFA (Codex STAN 192-195)
Brunei
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Thailand
01.0.0.0 DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0
01.1.0.0 Milk and dairy-based drinks
01.1.1.0 MILK AND BUTTERMILK (PLAIN)
01.1.1.1 Milk (plain)
01.1.1.2 Buttermilk (plain)
01.1.2.0 DAIRY BASED DRINKS, FLAVOURED AND/OR FERMENTED (e.g..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International Life Sciences Institute
Members
Database Search
Profiles
Members Login
Hi demo,
Log out
Search
Search Criteria
Food Categories DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0
Countries ALL
Legend
GSFA Value
Same with GSFA
Differs from GSFA
Harmonised with GSFA
Harmonised across searched countries
No data
Results
Orange indicates harmonized across ASEAN countries
Display all additives allowed for the food category
Additives
GSFA (Codex STAN 192-199)
Brunei
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Thailand
Vietnam
01.0.0.0 DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0
Acidity regulator/Acetic acid, glacial
Acidity regulator/Ascorbic acid, L-
Antioxidant/Tocopherols concentrated, mixed
Emulsifier/Acetic and fatty acid esters of glycerol
Flour treatment agent/alpha-Amylase from Aspergillus oryzae var.
Preservative/Benzoates

ASEAN Food Consumption Data

- Food consumption data is a key component required for calculating dietary exposure to chemicals and microorganisms in food

- National food consumption data already exists in most ASEAN countries but are not always available or used for food safety risk assessment purposes

- ILSI Southeast Asia Region collaborated with ASEAN Expert Group on Food Safety (AEGFS), Malaysian Ministry of Health, FAO and WHO to help gather food consumption data in ASEAN countries to be used for risk assessment purposes

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ASEAN Food Consumption Data

Workshop on Food Consumption Data and Exposure Assessment organized in 2011 in Kuala Lumpur, Malaysia, which gathered experts in food consumption data and food safety to identify common areas of need and resulted in

- Development of draft food category system for a common ASEAN Food Consumption Database

- Formation of an electronic working group to continue developing the ASEAN Food Consumption Database

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ASEAN Risk Profiles for Contaminants

Objectives of the documents are to serve as a guide for

1) Further prioritization of contaminants of concern in ASEAN region
2) Identification of scientific knowledge gaps;
3) Identification of need for a more comprehensive risk assessments
4) Harmonization of existing food safety standards
5) Establishment of new standards as and when appropriate

- To be developed jointly by regional academic scientists with specific expertise in either risk assessment methodologies or on particular
- Initial documents to focus on mycotoxins and microbiological pathogen harzards

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ASEAN Risk Profiles for Contaminants

To gather available existing scientific and relevant information on hazard/food combinations of concern identified by ASEAN food safety authorities, as a preliminary risk assessment activity

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Conclusions

- Food safety control systems based on risk analysis principles help to create a conducive environment for the operation of food and beverage SMEs to produce safe foods
- Lower production costs for safe food by SMEs combined with continuous technical improvements will allow for sustained growth and expansion to other markets (including within the ASEAN Economic Community)
- Capacity to implement risk analysis for food safety among ASEAN countries still needs to be developed further

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Thank you

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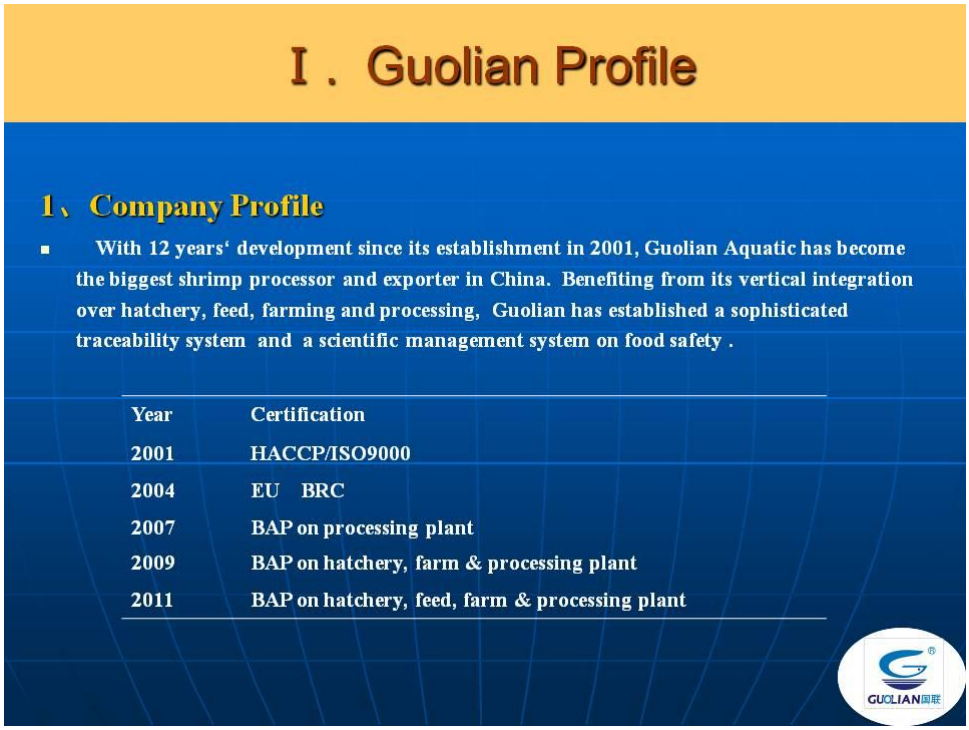
4. Ms. Zhao Hongmei



Ⅱ. Guolian Food Safety System

1.Improvement of Shrimp Seedling:

Ecological seedling: no antibiotic during production;

use microecologics to improve water quality;

Guolian hatcheries: 18 in total

Yearly Production: SPF Shrimp fry - 5 billion; PLs – 30 billion;

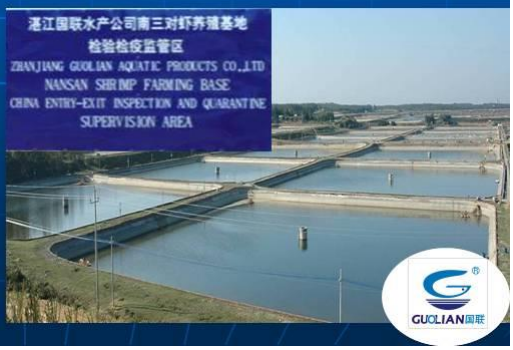
1st BAP Certified Hatchery in China

Ⅱ. Guolian Food Safety System

3. Standard Farming

- Usage of microecologics in disease control during production;
- Production management: farm registration system in CIQ, water quality testing system, production recording system, microecologics prescription system, product labeling system, shrimp testing system before harvesting;

Guolian Lined Ponds



Ⅱ. Guolian Food Safety System

4. Processing Control:

- Shrimp workshop and tilapia workshop – in compliance with HACCP regulations and EU standards;
- Real-time supervision on workshop equipment, worker hygiene conditions, raw material receiving, processing, packaging, cold storage, and product inspection;
- Industry Model in scientific production management;

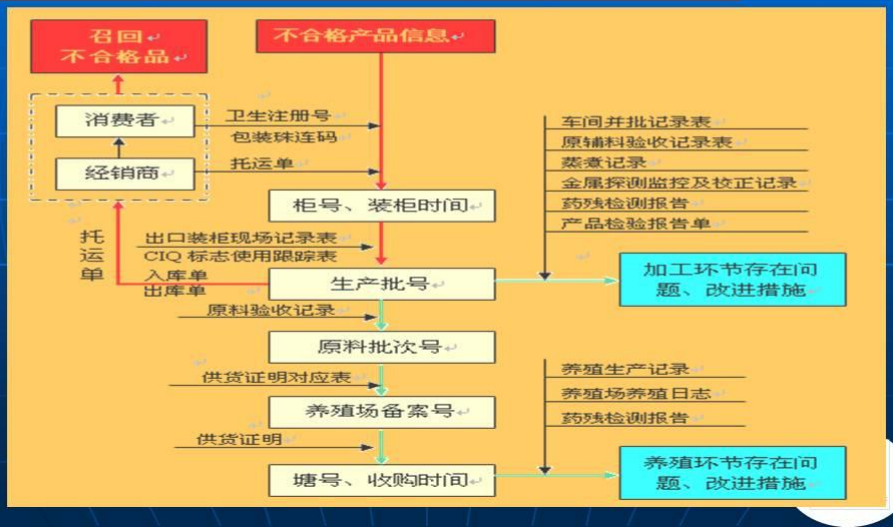
Ⅱ. Guolian Food Safety System

5. Laboratory:

- Well-equipped laboratories in farming base, feed mill, and processing plant;
- Tests conducted on each lot of raw material and finished product;

Ⅱ. Guolian Food Safety System

6. Traceability System (Tracing Forward & Backward):



Ⅱ. Guolian Food Safety System

Production Lot No.

Storage Entry/Exit

Finished Product Test

Production Lot No.→ RM Lot No.

RM Residue Test

Farming Pond

Ⅲ. Current Status of China SMEs' Food Safety Management

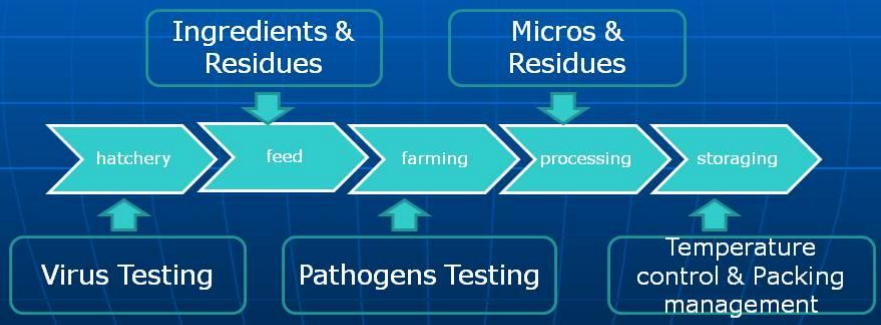
- With low entry cost, most of SMEs in food industry suffer from poor processing conditions, inferior equipment and specification ; what is more, SMEs are lacking in awareness of the importance of food safety, professional skills and knowledge, which results in disability in food safety management.

Major reasons in restricting SMEs from effective food safety management:

- Poor infrastructure;
- Insufficient professionals;
- Lack of awareness of the importance of food safety
- High cost in improving quality and safety management

Ⅳ. Enlightenment on Guolian's Development

- 1. Food safety is the lifeblood of a food processing enterprise.



Guolian's Testing System throughout the Vertical Itegration

Ⅳ. Enlightenment on Guolian's Development

Pre-test residues and pathogens before harvesting

-Qualified supplier
-Supplier testing report on every lot
-Micro test

Raw material

Other ingredients besides RM

Packing material

semi-manufactured product

Food contact surface

tests on micros

Finished product

Residues & Micros & Sensory tests

Guolian's Food Safety Control During Processing

Ⅳ. Enlightenment on Guolian's Development

2、 When internal skills and technology are not sufficient, SEMs can search for help from regulatory body, consulting organization, academy, and/or research institution.

Regulatory Body	CIQ & AQSIQ
Technical Exchange	China Fisheries Research Institute Freshwater Fisheries Center, Yangtze Institution of Chinese Academy of Fishery Sciences, Shanghai Ocean University
Consulting Organization	SGS、INTERTEK CCIC
Training Content	HACCP GMP SSOP BAP BRC ISO9000 ISO22000

Ⅳ. Enlightenment on Guolian's Development

Enhancing food safety awareness of the management team and all the workers

Hire SGS for trainings to production & QC team on HACCP system

Hire external professionals (MR.Zhang Yan) to instruct food safety management on site

Ⅳ. Enlightenment on Guolian's Development

Set up farming technique promotion center & Give trainings to private farmers around

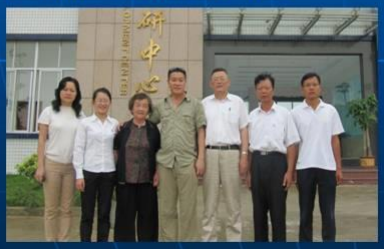
Trainings of vannamei farming techniques

Trainings of tilapia farming techniques

Technical Cooperation Body

China Fisheries Research Institute
Freshwater Fisheries Center

Aquatic College of Guangdong
Ocean University



Shanghai Ocean University

Yangtze Institution of Chinese
Academy of Fishery Sciences

Ⅳ. Enlightenment on Guolian's Development

- **Search for professional help and suggestions on location selection and plant layout design when setting up a new food processing plant.**

Ⅳ. Enlightenment on Guolian's Development

- Search for professional instructions on lab design and equipment operation;
- Guolian has obtained great support from CIQ on trainings on its laboratory personnel and on lab personnel ability assessment;

CNAS Accreditation

Ⅳ. Enlightenment on Guolian's Development

- Established a scientific food safety management system based on regulatory requirements on processing conditions, production equipment, process control, product standards, hygienic conditions, storage conditions, testing standards, quality management, labeling and etc.

laws and regulations

Quality management systems

Testing management systems

Ⅳ. Enlightenment on Guolian's Development

3. Be open to receive external supervision and inspection so to verify and improve food safety managing ability;

- Guolian has completed its vertical integration from hatchery, farm, feed and processing. As to verify its management efficiency throughout the industry, Guolian group apply for ACC 4 star certification audits; and by now Guolian is the only BAP 4 star enterprise in China.

CIQ's unannounced plant inspection

ACC certification audit

Ⅳ. Enlightenment on Guolian's Development

- **From 2003 to 2010,** Guolian Group has received in total 12 foreign official plant inspections, all of which are approvals of Guolian's management system , and among which FVO's inspection was rated 100 marks, the best to get.

- Through all these inspections, Guolian's management, production and QC teams have improved the food safety awareness; Guolian's management system has been brought in line with international standards.

FVO inspection on May 8th, 2009

Russian Federation Veterinary Bureau inspection on Sep 5th, 2013

Small and Medium Sized Enterprises: Considerations in FDA Rulemaking Process

Michael M. Landa
Director
Center for Food Safety and Applied Nutrition
U.S. Food and Drug Administration

U.S. Food and Drug Administration
Protecting and Promoting Public Health
www.fda.gov

Reasons for Size Considerations

- General Statutory
- Specific Statutory
- Policy

General Statutory Reasons

- Regulatory Flexibility Act (1980)
- Small Business Regulatory Enforcement Fairness Act (1996)

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Regulatory Flexibility Act

- Publish an analysis of a regulation's impact on small businesses
- If a regulation might have a significant impact on a substantial number of small entities, seek less burdensome alternatives
- Solicit views of affected small entities
- Consider the views of the Small Business Administration

Small Business Regulatory Enforcement Fairness Act

- Publish Small Business Compliance Guides

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Specific Statutory Requirements for Size Considerations

- Nutrition Labeling and Education Act Technical Amendments (1993)
- Patient Protection and Affordable Care Act (2010)
- Food Safety Modernization Act (2011)

Nutrition Labeling and Education Act Technical Amendments (1993)

Exemptions:

- Food products that have U.S. sales of fewer than 100,000 units annually made by businesses with fewer than 100 employees
  - Must notify FDA before marketing individual products
- U.S. manufacturers with fewer than 10 employees and selling fewer than 10,000 units of a food in a year
  - Do not need to notify FDA
- General merchandise retailers with annual gross sales in the United States of less than $500,000
- Food retailers with annual gross sales of food in the United States of less than $50,000

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Patient Protection and Affordable Care Act (2010)

- Menu labeling required in each location for chains with 20 or more locations
- Vending machine labeling required at each machine for operators of 20 or more machines

Food Safety Modernization Act (2011)

- Exempt farms (and food processors from certain portions)
  - Two Part Test
    1. Less than $500,000 annual gross sales AND
    2. More than half of product sold within 275 miles of the farm or within the state directly to
       - Consumers,
       - Restaurants, or
       - Retailers.
  - FDA may also define and exempt very small farms and processors

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Policy Reasons for Size Considerations

- Processing and Importing of Seafood (1995)
- Processing and Importing of Juice (2001)
- *Trans* Fat in Nutrition Labeling and Claims (2003)
- Current Good Manufacturing Practices for Dietary Supplements (2007)
- Shell Egg Production, Storage, and Transportation (2009)
- Proposed Rule on Produce Safety (2013)
- Proposed Rule on Preventive Controls for Human Food (2013)

Processing and Importing of Seafood

- Outreach, Education & Technical Assistance
  - Federal-State-Academic Seafood HACCP Alliance for assistance on matters like training
  - Extensive industry outreach to educate industry groups

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Processing and Importing of Juice

- Longer Compliance Time
  - Businesses with fewer than 500 employees got one additional year
  - Very small businesses got two additional years
- Proposed exemption… withdrawn
  - On-premises production of less than 40,000 gallons per year sold only directly to consumers or retailers
  - Public comments overwhelming opposed

Trans Fat in Nutrition Labeling and Claims

- Longer Compliance Time
  - Businesses with fewer than 500 employees get two additional years

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Current Good Manufacturing Practices for Dietary Supplements

- Longer Compliance Time
  - Businesses with $\geq$ 500 employees got one year
  - Businesses with between 20 and 500 employees got two years
  - Businesses with fewer than 20 employees got three years

Shell Egg Production, Storage, and Transportation

- Exemptions
  - Egg farms with fewer than 3,000 laying hens
  - Egg farms that only sell direct to consumers
- Longer Compliance Time
  - Egg farms with between 3,000 and 50,000 laying hens get two additional years

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Proposed Rule on Produce Safety

- Proposed Exemption in Addition to Statutory Exemption
  - Farms selling less than $25,000 food per year
- Proposed Longer Compliance Times
  - Two years for farms selling >$500,000 per year
  - Three years for farms selling > $250,000 and ≤ $500,000 per year
  - Four years for farms selling >$25,000 and ≤ $250,000 per year

Proposed Preventive Controls for Human Food

- **Small Businesses—**a business employing fewer than 500 persons would have two years after publication
- **Very Small Businesses**—a business having less than $250,000 (or alternatively $500,000 or $1 million) in total annual sales of food would have three years after publication to comply
- **Other Businesses**—a business that does not qualify for exemptions would have one year after publication to comply.

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Education and Technical Assistance

- Alliances
  - Produce Safety
  - Preventive Controls
  - Sprouts Safety
- Joint Institute for Food Safety and Applied Nutrition (JIFSAN)

Partnerships and leveraging are essential

Education and Technical Assistance

- Guidance documents
- National technical assistance network
- International Capacity-Building plan
- FDA Foreign Offices

Partnerships and leveraging are essential

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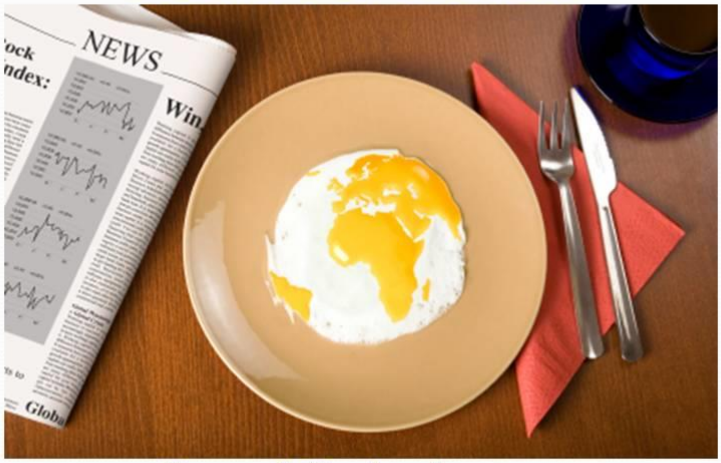
Thank you

Global Food Safety Capacity Building for Small & Medium Enterprises

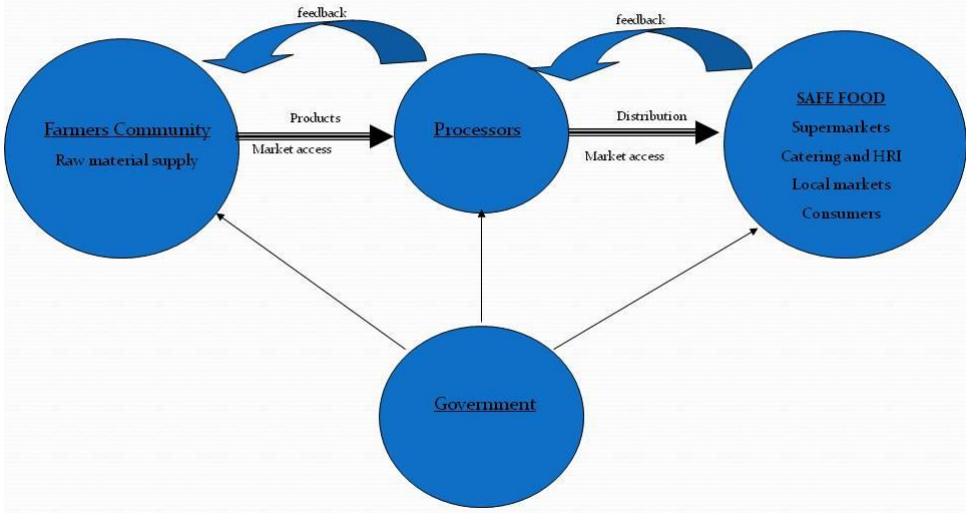
Brian G. Bedard
Global Food Safety Capacity Building Partnership (GFSP)
World Bank

Global Food Problem



Local Solutions

Food Safety in Agri-food Value Chains

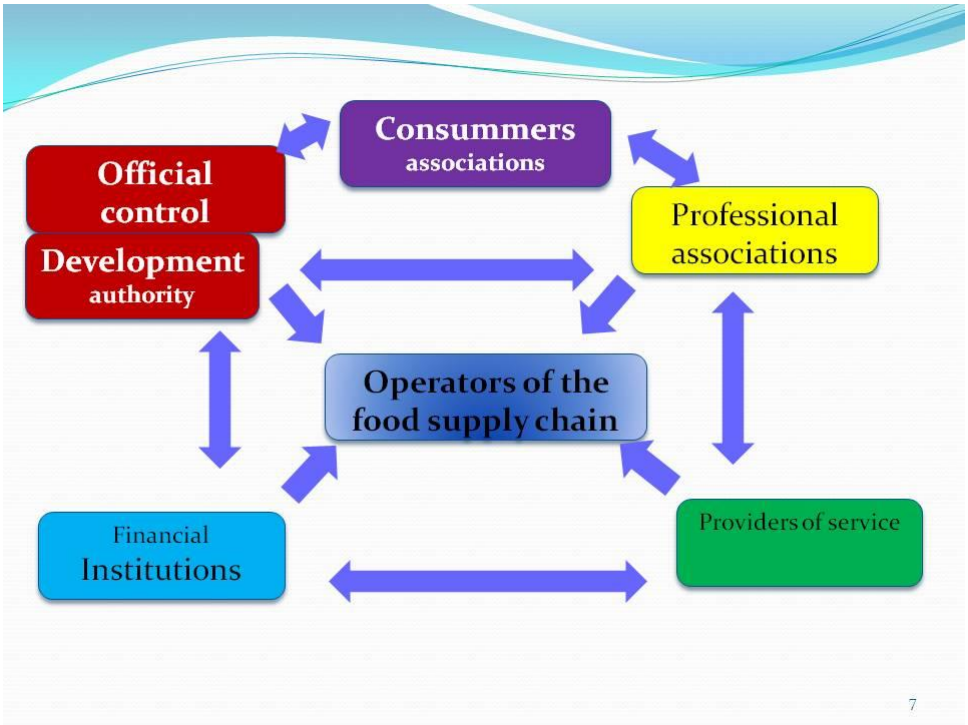


Micro, Small & Medium Enterprises

	Staff/employees	Annual turnover
Micro	< 10	< $2.5 million
Small	< 19, 25, 50, 100	<$15.0 million
Medium	< 250, 300, 1500	< $75.0 million

Markets

- **Local**
  - Wet markets
  - Domestic value chains and supermarkets
- **Export**
  - Regional
  - International
    - CODEX
    - ISO
    - US: Food Safety Modernization Act
      - Foreign Supplier Verification Program (FSVP)
      - Voluntary Qualified Import Program (VQIP),
    - EU: DG SANCO
    - APEC
    - Industry specification schemes: GFSI ++++
- **Third party audits for compliance**



7

FSMA

- Third-party certification
- Certification for known food safety risks
- Voluntary qualified importer program
- Authority to deny entry
- Capacity building of foreign governments with respect to food safety
- Better Prevention of Food Safety Problems in the Foreign Supply Chain
- Best practices by industry in priority countries and commodities
- Compliance with regulated standards by industry in priority countries and commodities
- Execution of compliance activities by FDA
- Better execution of compliance activities by the partner country government and NGO's

Lessons Learned

Poland

- EU accession in 2004 **€900m** for training and
- Approved enterprises **5,000 ➔ 500** after accession.

Romania

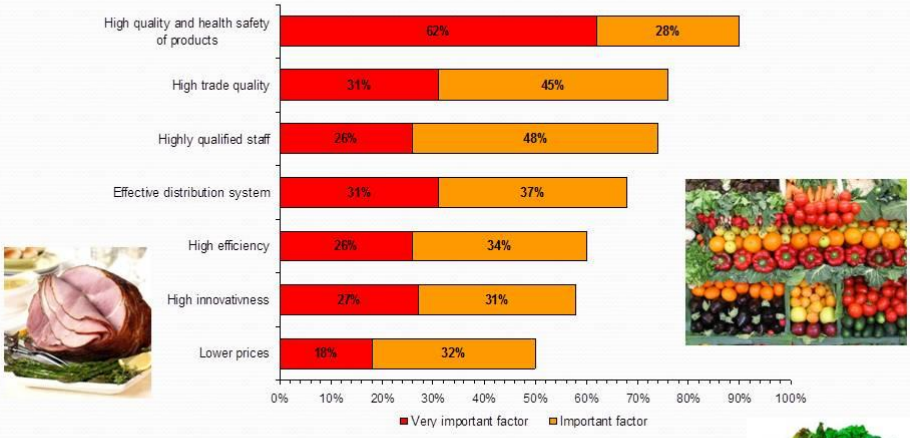
- Accession 2007 - €400 million for modernization
- Agri-food enterprises: **11,000 ➔ 1200**
- Agri-food Investment **€2.5 billion**

Turkey

- SME upgrading = **€2.2 billion**
- **>45,000 SMEs ➔ attrition rate?????**

Standing of Polish food processing companies

Factors of successful market competition



Source: ING Bank, Food market research, 2008

SME Upgrading Plans

- Diagnostic
- Upgrading Plan and financing
  - Compliance requirements
  - Map of the plant with flows (staff, products, garbage)
  - Equipment and facilities upgrading
  - Management systems/documentation
  - Cleaning and disinfection plan
  - Pest control plan
  - Quality Certification
  - Marketing
  - Alliances, partnerships, contracting
  - *Training and capacity Building*
- Upgrading plan approval
- Implementation and monitoring

SME Food Safety Non-Compliance

- Lack of money - immediate survival vs long-term;
- Lack of time;
- Lack of experience;
- Lack of access to information
- Lack of support
- Lack of interest – survival vs compliance with regulations;
- Lack of knowledge/ awareness
-
- **Lack of trust in food safety legislation and ENV regulations**
- **Lack of knowledge, understanding and motivation**

Understanding, Knowledge and Motivation

Capacity Building

Training - Technical Assistance - Education

- *Public sector – inspectors, regulators, managers*
- *Private sector – enterprises, food business operators*
- *On-farm quality assurance: raw material supply*
- *Experts – consultants, auditors, trainers*
- *Consumers and public awareness*

Training Content

- Individual upgrading plans
- Compliance requirements:
  - Regulatory systems US/FDA, EU, etc.
  - Customer requirements – processor/retail schemes
- Production, processing and distribution
- Leadership/mgmnt for the food and beverage industries
- Overview of main food processing operations
- Modernization and Upgrading requirements
- Product Development, Supply Chain and Marketing
- Improving Enterprise Competitiveness
- Financial Requirements and options

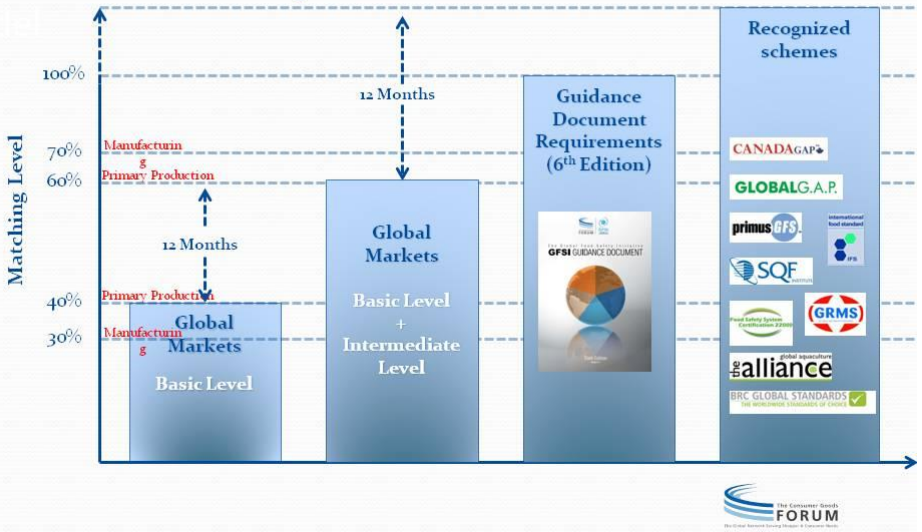
Training

- HACCP
- Food microbiology
- Allergen management
- Building a food safety culture
- Compliant handling and Best Practice Guidelines
- Crisis and risk management and recall plans
- Food defense and food fraud
- Food plant sanitation
- Sanitary design for food plants
- Supervising food safety systems
- Good Agriculture Practices (GAP)

Knowledge Centres

- Academic institutions
  - Universities or departments
  - Agricultural and food research laboratories and institutes
  - Intermediate centres for information and consultancy in the field of new
  - Centres of expertise('excellence')
  - Vocational schools
- Regional networks of companies or company
- Industry Associations
- Technical Assistance: Consultants, trainers, advisors
- Auditors, certification bodies
- Food technology development centres: research, product development, training, TA
- Global scaling up → Network or Platform Approach utilizing IT

Global Markets Program
Meeting industry-developed specifications



APEC Regional Food Safety Capacity Priorities

HACCP (APEC/FSCF/PTIN)

China

E-Learning (1 month) + Residential (10 days) Certificate Program

Government, Companies, Academia

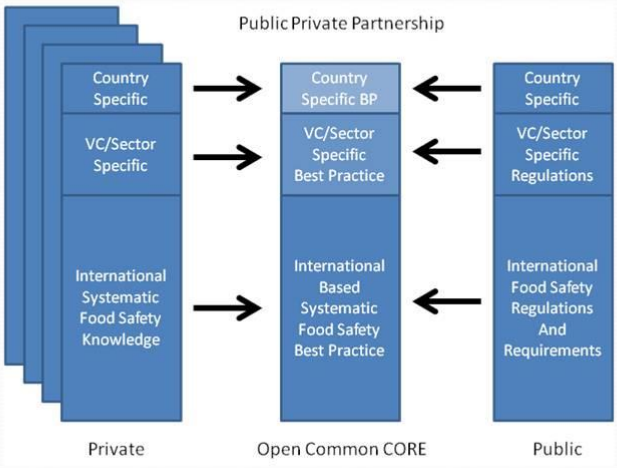
Scale up in China & Globally

Replicate

Scaling Up Food Safety Training

- Open source IT knowledge platform
- Training ➔ Competency – based
- E-learning, face-to-face, hands-on, etc
- Linked to existing resources
- Needs based training – industry assessments
- In-service, vocational, CE, professional development
- Free access, creative common license
- Affordable, accessible, relevant
- SUSTAINABLE IN NATIONAL/LOCAL INSTITUTIONS!!

Content design



SME'S FOOD SAFETY - CAPACITY BUILDING: PHILIPPINE EXPERIENCE

Presented during workshop on Educating SMEs on Food Safety Standards
10 April 2013
Surabaya, Indonesia

PRESENTATION OUTLINE

- Philippine Micro, Small and Medium Enterprises (MSMEs)
- Situationer of Food Safety Concerns in MSMEs
- Approaches in promotion and adoption of Quality Concepts

I. Philippine Micro, Small and Medium Enterprises (MSMEs)

- Micro, Small and medium enterprises (MSMEs) are seen as critical driver for the country's economic growth
- MSMEs contributed 61.2% of the economy's total employment and 35.7% of total value added

I. Philippine Micro, Small and Medium Enterprises (MSMEs)

- Classification of MSMEs
  - By Assets
  - By Employment size

	Asset Size (PhpM)	Employment
Large	>100 (>USD 2.4 M)	>200
Medium	15,001-100 (USD 0.36 M- USD 2.4 M)	100-199
Small	3,001-15 (0.074 M – 0.36 M)	10-00
Micro	≤ 3 (USD 0.074 M)	1-9

I. Philippine Small and Medium Enterprises (SMEs)

- As of 2011, there are **820,255** business enterprises in the Philippines of which **99.6%** are in to **Micro, Small and Medium Enterprises (MSMEs)**
- Micro enterprises: 91.0%, Small enterprises: 8.6%, Medium enterprises: 0.4%
- From MSMEs in the economy, roughly 26% are into food enterprises

II. Situationer of Food Safety Concerns in MSMEs

A. Quality Control (QC) problems encountered by food processing enterprises (FPEs) are the following:

- *Inability to produce products that maintain their quality during marketing and distribution*
- *Inability to monitor product quality between production runs*
- *Failure to understand sources of quality loss in production*

II. Situationer of Food Safety Concerns in MSMEs

A. **Quality Control (QC) problems encountered by food processing enterprises (FPEs) are the following:**

- *Product contamination due to poor methods of plant sanitation leading to product spoilage or loss*
- *Improper application of food additives and other technological inputs such as packaging materials*

II. Situationer of Food Safety Concerns in MSMEs

B. **Major causes of problems encountered by FPEs:**

- *Inadequate technical resources*
- *Poor Control over the Quality of Raw Material Purchases*

II. Situationer of Food Safety Concerns in MSMEs

B. **Major causes of problems encountered by FPEs:**

- *Insufficient Investment in Plant Sanitation and Maintenance*
- *Lack of awareness of the importance of food safety systems*
- *Lack of understanding of food safety requirements*

II. Situationer of Food Safety Concerns in MSMEs

C. **Modern Quality Concepts relevant to Food Safety adopted by the Philippines:**

- *Hygienic safety through Good Manufacturing Practices (GMP)*
- *Quality control of raw materials and/or finished products*
- *Quality Assurance System based on HACCP and/or ISO*
- *Sanitation Standard Operating Procedures (SSOP)*

II. Situationer of Food Safety Concerns in MSMEs

C. **Modern Quality Concepts relevant to Food Safety Concerns adopted by the Philippines:**

- *5S (sorting, straightening, sweeping, standardizing, sustaining the practice)*
- *Total Quality Management*
- *Good Housekeeping*
- *Green Productivity and its various equivalents*

III. Approaches in Promotion and Adoption of Quality Concepts

A. *Development of various laws governing food safety*

1. *The Agriculture and Fisheries Modernization Act*
2. *The Consumer Act of the Philippines*
3. *The Export Development Act*

III. Approaches in Promotion and Adoption of Quality Concepts

B. Conduct of various training and other technical assistance for the stakeholders:

Collaborative efforts of various government agencies such as Department of Agriculture, Department of Trade and Industry and Department of Science and Technology as well as academic institutions

III. Approaches in Promotion and Adoption of Quality Concepts

C. Upgrading of Laboratory Facilities for Testing

Various government laboratories are established and upgraded at the same time private laboratories are accredited to perform analysis in order to complement limited capacity of government

III. Approaches in Promotion and Adoption of Quality Concepts

D. Enhancing partnership of government with private sectors

Complementing the existence of each other, conduct of various activities together are being observed currently in order to enhance adoption of various quality concepts

III. Approaches in Promotion and Adoption of Quality Concepts

E. Specific activities conducted

1. Collaborative Projects of various government agencies of agriculture, health, local government and science and technology entitled: ***Food Safety Inter-Agency Program***

Includes programs such as: development of demonstration companies, on-line seminars or webinars, site evaluation, open forum and trainings

III. Approaches in Promotion and Adoption of Quality Concepts

E. Specific activities conducted

2. Industry initiated conferences

Serving as a good venue for various stakeholders to discuss issues and concerns on current food safety issues in the economy

III. Approaches in Promotion and Adoption of Quality Concepts

E. Specific activities conducted

2. Project specific for MSMEs: ***Small Enterprise Technology Upgrading Program (SET-UP)*** *launched by the Department of Science and Technology (DOST)*

Strategy to encourage and assist SMEs to adopt technological innovations to improve their operations through technology transfer and technological interventions by having better product quality, human resources development, cost minimization, waste management

Strengthening Food SME Development through Technology Business Incubation

Hadi K Purwadaria
Swiss German University - SGU
and Dedi Fardiaz
Bogor Agricultural University – IPB
hadi_purwadaria@yahoo.com

Coverage

- Technology Business Incubation
- Case Study in Food SMEs Incubation

Technology Business Incubation

Technology Business Incubation

Technology Business Incubation nurtures the Food SMEs by:

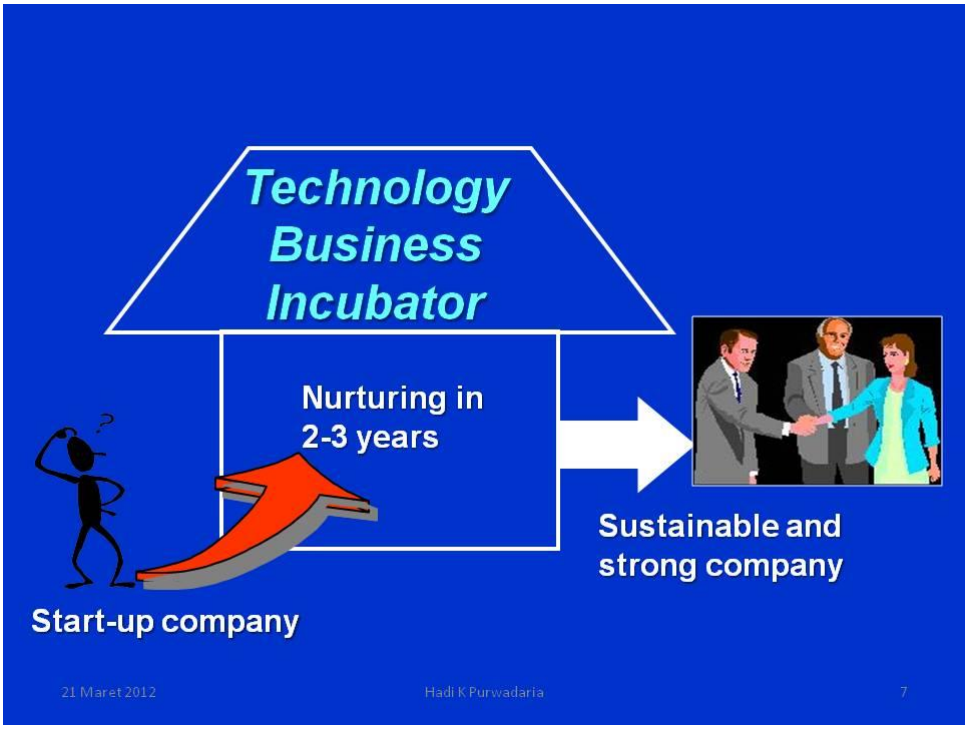
- Coaching the SMEs on entrepreneurship, and management
- Training on needy subjects: application of food safety standards
- Consultation in technology implementation and innovation
- Providing the SMEs with access market
- Facilitation to the financial resources

Duration of Business Incubation

- Around 2-3 years for SMEs in agribusiness and agroindustry
- Around 6 – 12 months for ICT start-up company

Institution of Technology Business Incubation

- The institution doing incubation is called Technology Business Incubator or TBI
- TBI is an organization that has physical facility and provide services in nurturing SMEs
- It may be under a university, government body, or private sector, and commonly working based on public-private-partnership concept
- It could be a for-profit or not-for-profit organization



Operation of TBI

- SMEs or in this case Food SMEs applied to TBI will be selected based on its motivation, and business plan before accepted as the incubatees
- Once, accepted it will be provided by TBI services in the incubation period of 2-3 years.
- Food SME incubatees could enter the space provided by incubator as the inwall incubatees, or stay at their own factory outside incubator as outwall incubatees.

Advantages of TBI Incubatees

- Provided by intensive incubation from time to time
- Provided by integrated services: coaching, training, technology innovation, access to market, and facilitation to financial resources.

Other Advantage of TBI

TBI commonly has wide network that could be accessed to solve the Food SMEs' problems. Network includes : human resources, government and private institutions, and international organizations.

ICT incubator : Bandung Digital Valley and one of its incubatee

Food Processing incubator : Incubie IPB formerly Incubator for Agribusiness and Agroindustry one of its incubatee

CV Graha Industri : nata de coco products, inwall incubatee, 10 years after graduated from TBI. Owner Aprisusi.

- Case Study in Food SMEs Incubation

Cocoa Processing Unit – Jimbarwana, Jembrana, Bali

Incubation Program

- Facilitation to government grant for 2 year program
- Technology innovation : modification of chocolate formula, implementation of new series of processing machineries (refiner, conching, tempering, and molding)
- Training on chocolate candy making

Incubation Program

- Coaching for entrepreneurship, and management
- Implementation of HACCP principles and renovating the processing plant.
- Providing the SMEs with access market
- Assisting the application for MD registration to NADFC

Condition prior to incubation:
Processing machinery and packaging for chocolate candy, long time process and non-competitive quality

Continuous refiner with 10 kg chocolate paste/h

Conching machine shortened the process from 60 h/batch to 20 h/batch. End product is finer than before.

Tempering cabinet for chocolate candy and intermediate products

Molding machine with vibration table

New packaging design for chocolate drink. Before just blank sachet.

New packaging design for chocolate bar and candy after the incubation

Closure

- Incubation helps in strengthening the business model of a start-up company
- Incubation requires intensive and integrated services in 2-3 years