Seminar on
Food Safety Risk Communication

April 2-3, 2019
Compass Skyview Hotel, Bangkok, Thailand

Organizers
Risk communication is a very important component in the food safety risk analysis framework. The main objective of food safety risk communication is to increase understanding among various stakeholders regarding the rationale behind the decisions taken to assess hazards and manage food safety risks and to help people make more informed judgments about the food safety hazards and risks they face in their lives. Therefore, developing an effective risk communication framework is not solely based on scientific knowledge, but also involves consumer perceptions, the relationship between consumers and risk communicators, as well as regulatory strategies on food safety.

The ILSI SEA Region and ILSI SEA Region Thailand Country committee, with the support from ASEAN Prepared Foodstuff Products Working Group (PFPWG) and the participation from Food and Agriculture of the United Nations (FAO), had organized the Seminar and ASEAN Regional Workshop on Food Safety Risk Communication on April 2-3, 2019 in Bangkok, Thailand.

The objectives of having this meeting were to:

1) Share knowledge on the basics of risk communication, Codex guidelines and the key considerations of food safety risk communication,
2) Introduce the new concept of food information communication
3) Highlight the importance of educating the public based on science
4) Emphasize the significance of partnership among the stakeholders
The meeting commenced with a welcome speech given by Mrs. Boon Yee Yeong, Executive Director of ILSI SEA Region.

**Introduction to Food Safety Risk Communication and Consumer Perception**

Dr. Andrew Powell, Asia BioBusiness Pte. Ltd., Singapore

*Dr. Andrew Powell presented on-behalf of Prof. Lynn Frewer, Newcastle University, UK, was unable to attend the seminar.*

Risk Communication is an integral part of risk analysis. The psychology of consumer risk perception drives public risk attitudes. Ethical representations, values, and concerns are the emerging determinants of societal and consumer decision-making. The experts and public perceive risk very differently: the expert relies on technical risk assessments and scientific augmentation while the public uses their risk perception and emotions to make judgments. Effective risk communication must be developed by understanding the target’s concerns, perceptions, characteristics of the target population, trust and credibility in information sources. In the case of an acute risk, the focus should be on the process of communication; while in the case of a chronic risk, the focus should be on consumer perceptions on the risks and benefits, as well as the concerns of those who are most affected. Avian Influenza was one of the case studies presented. It raised public health concerns due to the impact on poultry populations, potential to cause serious disease in people and potential for pandemic. In this case, the communicators need to communicate the warnings and information rapidly and widely the warnings and information. Although the risk communicators have to communicate with different groups of people, the message content must be kept consistent across the groups. Dr. Powell also emphasized the importance of trust, as people who distrust risk messages are unlikely to believe in the information. In general, the target risk perception has to be taken into consideration, message content and communication media has to be tailored according to the groups’ needs. Lastly, emergency preparedness and communication plans need to be in place in advance of any crisis.

**Codex Guidelines on Food Safety Risk Communication**

Dr. Masami Takeuchi, Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific (FAO RAP), Thailand

Codex has defined the risk analysis framework as a process consisting of risk assessment (science-based), risk management (policy-based) and risk communication. A food safety hazard is defined as an agent while the risk is a probability of an adverse health effect. She also gave several examples of how to differentiate hazard and risk communication. Thus, codex definition of food safety risk communication is the interactive exchange of information and opinions throughout the risk analysis process concerning risk, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions. It involves a two-way process; understanding people’s perception of risk; opportunities for public involvement in decision-making; timely
and accurate information; as well as internal communication. Dr. Takeuchi also informed the participants regarding the FAO/WHO Guiding Principles in risk communication.

**Key Considerations in Risk Communication**
*Mrs. Lorraine Haase, FSANZ, Australia*

The rapid exchange of information on social media, clickbait, marketing strategy, personal agendas and journalists who don’t always have good scientific literacy make explaining complex scientific issues difficult. There can also be a tendency amongst scientists and communicators who have worked in food science agencies for a long time to make assumptions about understanding. However, all of these must be accepted. Mrs. Haase suggested being open and listening to the stakeholders, plan and evaluate the communication, collaborate with other credible sources, meet the needs of the media as well as communicate clearly and with compassion. Communicating risk should take into consideration outrage factor, perception, strategy, timely and accurate information, early involvement of communicators, transparency, public consultation, and fit-for-purpose. Mrs. Haase then provided several case studies on risk communication for several food safety issues in Australia and New Zealand.

**New Concept in Food Safety Communication**
*Dr. Junshi Chen, ILSI Focal Point in China, China*

One of the difficulties in food safety is the communication of the issues to the public without undermining consumer confidence. However, the emphasis on ‘RISK’ may not be the ideal approach as the word “risk” is naturally perceived negatively. Moving “risk communication” to “food information communication” may be the solution to restore public confidence in the safety of the food supply and make the governments feel less threatened by communication, and this is being explored in many jurisdictions. The core objective of food information communication is to establish trust among stakeholders, rebuild consumer confidence, reduce government’s pressure of public opinion. Government and industries should keep communicating based on science to gain trust by an open or transparent posture. The communication should be innovative to make food information more attractive to the public. Training and education for the front-line inspectors/staff, government officials and experts are critical now as every inspection is an opportunity to communicate and their understanding of new monitoring measures, development in science would influence their capability of enforcement, hence influence the public’s trust in the entire monitoring system. Dr. Chen concluded that the urgent challenge in food safety is that the social damage of rumor and misleading information has exceeded the health risk of food itself. The solution is to establish a food information communication system led by the government and participated by multisectoral stakeholders to carry out broader food information communication instead of risk communication. There is no existing model to follow yet and needs pioneers to explore and implement.

**Science Communication to the Public**
*Dr. Chai Lay Ching, University of Malaya, Malaysia*

Science is part and parcel of risk communication. Effective science communication involves sharing thoughts, ideas, and feelings with others in commonly understandable ways. However, there are several challenges in communication nowadays, such as 1) lack of feedback mechanisms (no two-way communication, recipients do not understand the right message that
senders are trying to deliver), 2) scientists have difficulties in understanding what are the information needed by the public, and 3) translating the scientific evidence to lay-man communication to the public. One of the UK studies shows that 75% of the public ought to learn about science on potential risk. However, more than 50% of scientists pay less attention to the potential risk. When a crisis happens, the media would sensationalize the topic and therefore a lot of misleading information is being introduced to the community. Citizen science has been introduced to the community with the objective of involving the public in scientific research and therefore could educate the public on science. One of the typical citizen science projects is personalized nutrition, where all the data are collected from volunteer participants from the public. Besides that, Dr. Chai also explained the differences between science and Pseudoscience. She further commented that the major difference is that science invites criticism, openness to accept the ideas and willingness to change according to the new evidence; however, Pseudoscience sees criticism as a conspiracy theory. Dr. Chai then introduced several platforms and channels for science communication. In Malaysia, Science Café has been a very good initiative for the scientist to talk to the public about science.

Public-Private Partnership in Risk Communication
Dr. Andrew Powell, Asia BioBusiness Pte. Ltd., Singapore.

A fully functional food ecosystem can only be effective if all the parties work together. Dr. Powell used food fraud as an example to show the importance of partnership. Food fraud undermines the ecosystem and people start having concerns. Another example he mentioned was food poisoning issues which could proliferate and eventually impact the whole food ecosystem. The two major players in the ecosystem are government and industry. Thus, it is relevant that the government and industry work together to maintain the integrity of this ecosystem. Public-private partnership (PPP) can be viewed in a broad way as covering most interactions between the private in a broad way as covering most interactions between the private and the public sectors and in a narrower way as focusing on particular sets of risk-sharing and financial relationships. PPP provides new resources, build capability and improve existing systems. In PPP, there are several important elements for successful partnerships: i) a clear understanding of their distinct roles and abilities in the collaboration, ii) mutual trust and cooperation, iii) transparent procedures, iv) well-mapped performance criteria, and v) clear review mechanisms. At the end of Dr. Powell’s presentation, he suggested identifying appropriate partners, clearly specifying roles and responsibilities for each partner, developing proper monitoring and evaluation schemes, creating appropriate systems for managing conflicts of interests, and improving transparency in decision-making processes, all these would help in successful PPP.

Panel Discussion
After the presentations, an interesting panel discussion was held among the speakers and chaired by Dr. Anadi Nitithamyong. This panel discussion was focused on Food e-commerce which has been an emerging market and raises the concern on food safety control. Many countries are drafting their food regulations for food e-commerce. Dr. Chen commented that food e-commerce market has bloomed in China. Surprisingly, the Chinese nation perceives pre-packaged foods to have higher food risk than the food delivered from restaurants. In China, home-prepared food is prohibited from being sold to the public. On the other hand, Dr. Chai mentioned that a food delivery company in Malaysia has approached the consultants to set up a food safety system for food delivery service line. However, it is an extremely complicated process due to the diversity of the cooks or food handlers involved. She suggested that it is
probably more suitable to have a food safety regulation in place at the moment to mitigate food safety risk.
Asst. Prof. Dr. Anadi Nitithamyong is Senior Advisor at the Institute of Nutrition, Mahidol University (INMU), Thailand where she served as the Deputy Director for Education and Special Affairs from 2008 to 2011 and Deputy Director for Policy and Planning from 2015 to 2016. Her research interest and experience involve food processing and product development for nutritional and functional purposes particularly dietary fiber related areas. Currently she is the Vice President for Academic Affairs of the Food Science and Technology Association of Thailand (FoSTAT) and a member of the Nutrition Association of Thailand (NAT). She is also a member of the Scientific Advisors of the International Life Sciences Institute (ILSI), Southeast Asia Region and is Coordinator for ILSI Thailand Country Committee. Dr. Nitithamyong received her PhD in Food Science from the University of Wisconsin-Madison, USA.

Dr. Andrew Powell is the CEO of Asia BioBusiness Pte. Ltd. - a Singapore based consulting group co-founded in 2005 with Professor Paul Teng. The company advances the agriculture, food and biotechnology agendas of their clients in Asia, ANZ and also Latin America. Clients come from both the public and private sector including Syngenta, Bayer, Tate and Lyle, NIA Thailand, APEC, USDA, Austrade, NZ Bio, and the governments of Scotland, Canada, Malaysia etc. He is a long-time Asia resident, living and working in the region for over 30 years.

Asia BioBusiness has a very active Risk Communication practice, focusing on addressing risk perceptions that are often generated as innovations are introduced into the market. Clients in this area include the International Fragrance Association, Dupont Nutrition, and Health, UNEP-GEF-Ministry of Environment, India, CropLife Asia, CropLife Australia, NZBIO, Life Science Association of Manitoba, APEC, the Government of Chile, Malaysian Bioeconomy Corporation etc.

Dr. Powell graduated from the University of Edinburgh with honors in Biology and obtained his Ph.D. from the University of Calgary, Canada. He has held research and academic positions at the University of Guelph, Canada, the National Institute for Health Sciences in Tokyo, and Tsukuba, Japan and the National University of Singapore.

Dr. Powell sits on the Alberta Government’s Research and Innovation Advisory Committee (ARIAC) advising on innovation communication in food and agriculture, and on the advisory board of the Scientific American World View publication.
Dr. Masami Takeuchi is a Food Safety Officer at the Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific (FAORAP) in Bangkok, Thailand. Dr. Takeuchi provides food safety advice to FAO Members, as well as the Codex Alimentarius Commission, including risk assessment activities and safety assessment of food/feed derived from new technologies including biotechnologies. She also advises FAO Members on applications and development of innovative technologies (i.e. genome sequencing) for better food safety management. She is the manager of the global database on safety assessment results of foods derived from GMOs, entitled ‘FAO GM Foods Platform’. Dr. Takeuchi continues to lead global FAO activities, including those related to new and emerging technologies, while she takes up various regional and national initiatives on food safety to assist countries in the Asia-Pacific region for their food safety capacity development. Dr. Takeuchi holds a Ph.D. in food science and human nutrition from Washington State University, USA.

Mrs. Lorraine Haase has been the Manager of Communication and Stakeholder Engagement at Food Standards Australia New Zealand since 2010. During her time at FSANZ, Mrs. Haase has been involved in managing communication on a number of high-profile food incidents and recalls. She also manages the full suite of corporate communications on behalf of FSANZ, along with the organization’s social media strategy.

Mrs. Haase began her career as a journalist working for regional and national media outlets. This included six years at Australian Associated Press. While with AAP she spent some time reporting on national politics while working in the Federal Parliamentary Press Gallery. Mrs. Haase has worked for a number of Australian Government departments in diverse communication roles. These roles included managing communication on the Bali taskforce, established in response to the Bali bombings in 2002 and working as a senior speechwriter and media officer in the Department of Health and Ageing.

Mrs. Haase also managed communications at a local level in the Australian Capital Territory Planning and Land Authority, before taking up her position at Food Standards Australia New Zealand (FSANZ).

Dr. Junshi Chen is Director of ILSI (International Life Sciences Institute) Focal Point in China. He is also the Chair of the Chinese National Expert Committee for Food Safety Risk Assessment and the Vice-Chair of the National Food Safety Standard Reviewing Committee. Internationally, Dr. Chen served as the chairperson of the Codex Committee on Food Additives (CCFA) (2007-2017), and currently as co-convener of the UN AMR Inter-Agency Coordination Group (IACG) and member of the WHO Food Safety Expert Panel. He has engaged in nutrition and food safety research for more than 50
years, and he is the Senior Research Professor, China National Center for Food Safety Risk Assessment since 2011. He has conducted large epidemiological studies on diet, nutrition and chronic diseases, in collaboration with Dr. T. Colin Campbell, Cornell University, USA, and Prof. Richard Peto, University of Oxford, UK, since 1983. From the late 1980’s, he conducted a series of studies on the protective effects of tea on cancer, including laboratory studies and human intervention trials. Dr. Chen is a member of the expert panel responsible for writing the 1997 WCRF/AICR report “Food, Nutrition and the Prevention of Cancer: A Global Perspective”. His research interests focus on nutrition epidemiology as well as food safety surveillance and risk assessment in the following areas: food safety risk assessment and risk communication; food toxicology; epidemiological studies on diet, nutrition and chronic diseases; food fortification; and Total Diet Studies in China. Dr. Chen graduated from Beijing Medical College, China in 1956.

Dr. Chai Lay Ching is a senior lecturer from the Institute of Biological Sciences, Faculty of Science, University of Malaya, Malaysia. Her research focuses on food safety and microbiology. Dr. Chai serves as the Vice Chair of the Technical Working Group of Microbiology under the Food Analysis Committee (JKAM) chaired by the Department of Chemistry Malaysia, Ministry of Energy, Science and Technology, Energy and Climate Change. She has established great linkages with the industry and has been identified as the Key Opinion Leader in the field of food safety and microbiology. Her active contribution and involvement in food safety research has won her the Malaspina International Award by the International Life Science Institute (ILSI) in 2018. Dr. Chai is now a member of the scientific advisory panel of ILSI South East Asia Region that provides guidance and advice on the food safety and risk assessment in the region. She also serves as the Vice Chair of the Southeast Asia International Association of Food Protection. Dr. Chai was awarded the L’Oreal-UNESCO Women in Science Award in 2018 for her great passion and achievements in science. Also, due to her active contribution in promoting excellence in research in Malaysia, she has been appointed by the Academy of Sciences Malaysia as the Chairperson of the Young Scientists Network-Academy Sciences of Malaysia to lead scientific research development among the young scientists in the country. Dr. Chai received her Ph.D in Food Safety from Universiti Putra Malaysia in 2008.