REPORT ACTIVITY
THE INDONESIAN TEMPE FORUM
FY 2014

Supported by:

U.S. Soybean Export Council
(USSEC)
SUMMARY OF ACTIVITIES

1. Organization Consolidation

Regular meeting

To maintain communication and share information between Indonesian Tempe Forum members and to consolidate program, a regular meeting has been conducted once in a month in each area where ITF activities are exist. Up to date, ITF has representative (focal point) in 9 different provinces across Indonesia. They are persons who have interest in Tempe promotion and committed to involve in the implementation of ITF programs.

List of ITF representatives (focal points) in Indonesia and their institution by September 2014:

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Province</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sutaryo</td>
<td>Jakarta</td>
<td>KOPTI</td>
</tr>
<tr>
<td>2</td>
<td>Sukhaeri SP</td>
<td>West Java</td>
<td>KOPTI</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Siti Harnina Bintari</td>
<td>Central Java</td>
<td>State University Semarang</td>
</tr>
<tr>
<td>4</td>
<td>Ir. Joek H. Arisasmita</td>
<td>East Java</td>
<td>Widyamandala University</td>
</tr>
<tr>
<td>5</td>
<td>Muksin Pasambua, SPd., MS</td>
<td>North Sulawesi</td>
<td>Health Polytechnic Manado</td>
</tr>
<tr>
<td>6</td>
<td>Slamet Widodo, SPd., MS</td>
<td>South Sulawesi</td>
<td>State University Makasar</td>
</tr>
<tr>
<td>7</td>
<td>Tetty Herta, STP, MKM</td>
<td>North Sumatera</td>
<td>Health Polytechnic Medan</td>
</tr>
<tr>
<td>8</td>
<td>Betty Yoshepin, M.Kes</td>
<td>Bengkulu</td>
<td>Health Polytechnic Bengkulu</td>
</tr>
<tr>
<td>9</td>
<td>Made Darawati, STP, M.Sc</td>
<td>West Nusa Tenggara</td>
<td>Health Polytechnic Mataram</td>
</tr>
</tbody>
</table>

2. Tempe Consumption Promotion

Tempe promotion consumption was directed to highlight the health benefit of tempe rather than just as a source of high quality protein and targeted to middle up level in the community and youth generation of the population. The aim of the promotion is to improve the perception of tempe among those targeted population. To promote health benefit of tempe consumption, several seminar and symposium were implemented in collaboration with local institutions.
Below are summary of Tempe Seminar & Symposium organized in 2014:

I. National Tempe Seminar, Jambi 10 May 2014

The seminar was organized in collaboration with Faculty of Food Technology, Jambi University with theme: “Tempe & Health” in Jambi, on May 10, 2014. The objective of the event was to provide updates on the health benefit of Tempe and other Soyfood Products as well as to socialize “The National Tempe Day”. The seminar was initiated by Dr. Sahrial, MSi, Dean of Faculty of Agricultural Technology, Jambi University. It was participated by 110 participants; lecturers, college students, representatives from Local Government Institution as well as tempe and tofu producers in Jambi.

The seminar was inaugurated by Prof. Dr. Aulia Tasman, Rector of the Jambi University. He expressed his gratefulness to USSEC and ITF for organizing the seminar in his institution. Dr. Made Astawan, the first speaker presented the health benefit of soybean and its derivative products. He explained the scientific fact on the benefit of soyfood consumption and overcomes the myth and misinformation related to negative health effect of soyfood consumption. Dadi Maskar presented topic on Tempe, a gift from Indonesia to the world, ITF activities and socialized the June 6th as National Tempe Day. Third speaker was Dr. Sahrial, Msi, Dean of Faculty of Agricultural Technology. He presented topic on the existing of local soyfood product in Jambi and its potential.

The afternoon session was discussed on the importance of promoting tempe consumption the possibility of implementing ITF Activities in Jambi. Similar with the condition in the area outside Java, tempe is less popular in Jambi compared to other food product especially seafood origin. However considering the nutritional value and health benefit potential of tempe, it was agreed to put more effort for program to promote tempe consumption in Jambi. A visit to KOPTI Jambi and production center of tempe and tofu were held after the seminar. All tempe stakeholders in Jambi responded positively on the idea and acknowledged the need of program to promote tempe in Jambi. It was propose to implement some program activities to improve tempe production process targetted to tempe
producers as well as promotion program to improve the consumption level of tempe targetted to the Consumer. The Dean proposed to develop Rumah Tempe Indonesia in Jambi adopting the concept in Bogor.

Dady Maskar & Dr. Made Astawan as Speakers in the seminar

Participants & discussion session

II. The National Soy Symposium on Health, Market and Development of Tempe, Bogor, June 18, 2014

The Indonesian Tempe Forum in collaboration with PERGIZI PANGAN (Indonesian Food and Nutrition Association) has successfully conducted One
Day Soy Symposium on Health, Market and Development in Bogor on June 18, 2014. The event was organized in the occasion of the National Tempe Day on June 6. It was attended by 146 participants from various background, such as representatives from food industries, research institutions, universities, health professionals, nutritionist, government officials & college students.

The theme of the symposium was: “Current Update on the Role of Tempe and other Soyfood Products on Health Aspect & Recent Findings on Marketing, Product Development & Innovation”. The symposium was organized in two plenary session in the morning and two concurrent sessions in the afternoon.

The Symposium was officially inaugurated at 8.30AM by opening remarks from Prof. Made Astawan, Chairman of the Organizing Committee and Prof. Hardinsyah as the Chairman of PEGIZI PANGAN. The 1st Session on Recent Update on Soy & Health chaired by Dr. Rimbawan consisted of 4 speakers. First speaker, Ms. Madeleine Wan, ACO RN Market Research, Singapore, presented the Consumer Knowledge and Perceptions of Soyfoods and Beverages among Indonesians - A Recent Surveys in SEA countries.

Second speaker was Prof. Hardinsyah, Chairman PEGIZI PANGAN and Professor Faculty of Human Ecology, Bogor Agriculture University, presented the Tempe & Soyfood Consumption in Indonesia – Summary from a Recent National Survey. The third speaker, Dr. Susianto, Chairman Indonesian Vegetarian Society, presented the Tempe & Soyfood as an Ideal & Healthy Food for Vegetarian. The 4th speaker was Prof. Koh Woon Puay, Duke – NUS Graduate Medical School, Singapore. Due to health reason she was unable to present in the Symposium, however she prepared a video presentation on Soy, Gout and Diabetes – Findings from the Singapore Chinese Health Study (Ongoing Cohort Study). The good quality of video and her clear voice can minimize her absence, the topic well received by participants except no chance for interactive discussion.

The 2nd Session on Recent Update on Marketing, Product Development & Innovation on Tempe & Soyfood was chaired by Prof. Tutik Wresdyati consisted of 3 speakers. Mr. Amita Buissink, Owner Margareth River Tempeh, Australia presented his experience in Promoting & Marketing Tempe in Australia. Second speaker, Prof. Made Astawan, Chairman ITF and Professor Faculty of Food Technology, Bogor Agriculture University, presented the Profile of Tempe Producer in Implementing GMP and Consumer Perception upon Certified Hygiene Tempe. Last speaker, Prof. Antonius Suwanto, Bogor Agriculture University, presented the Fermentation Biotechnology of Soyfood Products.

The concurrent session after lunch break was divided into 2 topics: first aspect on Soy Health & Marketing consisted of 6 speakers. The second aspect on Food Industry, Innovation & Product Development consisted of 8 speakers. Majority of the speakers in the concurrent sessions were from universities and research institutions, they presented the result, update and findings from the recent research.
The closing session in the plenary forum was come up with several conclusion & recommendations from the symposium:

1. To strengthen the statement/declaration of Tempe as a Traditional Food Heritage of Indonesia and support the recognition of 6 June as National Tempe Day

2. To continue to held a National Annual Event as well as International Event to commemorate in the occasion of 6 June as National Tempe Day

3. To support the proposal of submission Tempe as Intangible Cultural Heritage for Humanity to the UNESCO

4. To gain support from the relevant stakeholders and work together hand in hand to improve tempe industry in Indonesia, especially on the Food Safety & Hygiene aspect

5. To gain the support for research activities related to Tempe & Soyfood Products in several important aspect, such as: health, marketing, product development & innovation.
The Indonesian Tempe Forum (ITF) in collaboration with Indonesian Nutritionist Association (PERSAGI) North Sumatera, has successfully conducted one day seminar on the “Tempe & Health” in Medan, North Sumatera, on August 7, 2014. The event was organized in the occasion of inauguration of the new elected chairman and committee of PERSAGI at North Sumatera Province. It was participated by 285 participants; mostly nutritionist the PERSAGI member, lecturers, college student, representatives from Local Government Institution as well as tempe and tofu producers in Medan.

The seminar was inaugurated by Mr. Bambang Purwantoro on behalf of Dr. Minarno, Chairman of PERSAGI at National Level. He expressed his grateful to USSEC and ITF for supporting PERSAGI in organizing the seminar in Medan. He acknowledged the important role of tempe in the Indonesian daily diet. Aside as source of protein, tempe is also provide healthy and nutritious food for the family at the affordable price. On the other hand the image of tempe is still associated as inferior food in some societies and there are still some misleading information on the negative effect of soyfood consumption. Therefore this seminar which is targeted mainly to the nutritionist is very beneficial to overcome the misleading
information on the negative effect of soyfood consumption as well as to build the pride of tempe as Indonesian food heritage in order to improve the image of tempe.

Dr. Made Astawan, the first speaker presented the health benefit of soybean and its derivative products. He explained the scientific fact on the benefit of soyfood consumption and overcomes the myth and misinformation related to negative health effect of soyfood consumption. Dadi Maskar presented topic on Tempe, a gift from Indonesia to the world, ITF activities and socialized the June 6th as National Tempe Day. Last speaker was Mr. Lavinur, lecturer at the Health Polytechnic Medan who is also run tempe business. He shared his experience in producing and marketing good quality of tempe in Medan. He started the business in about 12 years ago, produced tempe from about 5-10 kg of soybean per day and selling the tempe to his colleagues in the university. Currently his tempe production utilize 800 kg of soybean per day, employed 30 workers and his tempe is marketed throughout Medan City. He concluded that running the tempe business is good for everyone, its provide good food for the consumers, provide employment opportunity for the worker as well as good income.

The afternoon session was discussed on the importance of promoting tempe consumption the possibility of implementing ITF Activities by PERSAGI in Medan. Similar with the condition in the area outside Java, tempe is less popular in Medan and North Sumatera Province compared to other food product. However considering the nutritional value and health benefit potential of tempe, it was agreed to put more effort for program to promote tempe consumption in Medan. All tempe stakeholders in Medan responded positively on the idea and acknowledged the need of program to promote tempe in Medan. PERSAGI and Health Polytechnic Medan has agreed to be a focal point for ITF activities in Medan and North Sumatera Province. Mrs. Tetty Herta Doloksaribu, a Senior Lecturer at Health Polytechnic Medan was appointed as ITF Coordinator in North Sumatera Province. It was propose to implement some program activities to improve tempe production process targetted to tempe producers as well as promotion program to improve the consumption level of tempe targetted to the Consumer.

Audience of the Seminar
USSEC Indonesia in collaboration with Indonesian Tempe Forum (ITF), Indonesian Food Technology Association (PATPI) and Indonesian Nutritionist Association (PERSAGI) South East Sulawesi Province, has successfully conducted one day seminar on the “Tempe & Health” in Kendari, on August 30, 2014. The objective of the event was to provide updates on the health benefit of Tempe and other Soyfood Products as well as to socialize “The National Tempe Day”. It was participated by 185 participants; nutritionists, lecturers, college student, representatives from Local Government Institution as well as tempe and tofu producers in Kendari.

The seminar was inaugurated by Mrs. Tina Nur Alam, wife of South East Sulawesi Governor as chairwoman of PKK (South East Sulawesi Woman association). She expressed her grateful to USSEC and ITF for organizing the seminar in Kendari. She acknowledged the important role of tempe in the Indonesian daily diet. Aside as source of protein, tempe is also provide healthy and nutritious food for the family at the affordable price. The organizer was also conducted a tempe culinary competition. Mrs. Nur Alam presented the prize to the winners of the culinary competition.

Dr. Made Astawan, the first speaker presented the health benefit of soybean and its derivative products. He explained the scientific fact on the benefit of soyfood
consumption and overcomes the myth and misinformation related to negative health effect of soyfood consumption. Dadi Maskar presented topic on Tempe, a gift from Indonesia to the world, ITF activities and socialized the June 6th as National Tempe Day. Similar with the condition in the area outside Java, tempe is less popular in Kendari and South East Sulawesi Province compared to other food product especially seafood origin. However considering the nutritonal value and health benefit potential of tempe, it is important to promote tempe consumption in Kendari. It is proposed to organize similar event in a regular basis in the near future.
4. Research to improve the tempe production method

A research on application of steaming process on Tempe production to retrench the use of water was implemented at the Rumah Tempe Indonesia Bogor on May – June 2014. The objective of this research was to replace boiling process into steaming process in order to decrease used-water.

The research was divided into two phases; the first was tempe producing by three different methods, which were normal process of RTI, modified method by boiling and steaming. The second step was a simple sensory evaluation test conducted among several tempe producers in Bogor.

In comparison with normal tempe producing method that has been done in RTI, several steps were modified in this research. Complete flow chart and comparison can be seen below:

<table>
<thead>
<tr>
<th>NORMAL METHOD (1)</th>
<th>APPLIED METHOD IN THIS RESEARCH (2)</th>
<th>OBSERVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soaking for 3 hours</td>
<td>-</td>
<td>Dehulling un-cooked soybean was harder compared to cooked one. Definition of harder:</td>
</tr>
<tr>
<td>Boiling</td>
<td>-</td>
<td>1. Take longer time and even more water to rinse the beans in order to ensure that all skin were removed.</td>
</tr>
<tr>
<td>Soaking 15 hours</td>
<td>Soaking tempe for 24 hours</td>
<td>2. Water for cleaning was always covered by foam even though had been filtered and altered several times</td>
</tr>
<tr>
<td>Dehulling</td>
<td>Dehulling</td>
<td>3. The resulted beans are broken form (not as good as cooked beans), its to due to physical texture of the beans that still hard. The water is also foamy and still remain after couple filtering processes</td>
</tr>
<tr>
<td>Showering with hot water</td>
<td>Boiling (2a) /Steaming (2b)</td>
<td></td>
</tr>
<tr>
<td>Cooling</td>
<td>Cooling</td>
<td></td>
</tr>
<tr>
<td>Inoculating</td>
<td>Inoculating</td>
<td></td>
</tr>
<tr>
<td>Packing</td>
<td>Packing</td>
<td></td>
</tr>
<tr>
<td>Incubating</td>
<td>Incubating</td>
<td></td>
</tr>
</tbody>
</table>
Result of Application

<table>
<thead>
<tr>
<th></th>
<th>Steaming (2a)</th>
<th>Boiling (2b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Weight of Soybean</td>
<td>1.75 kg</td>
<td>1.75 kg</td>
</tr>
<tr>
<td>(after soaking)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weigh after steaming/boiling</td>
<td>1.85 kg</td>
<td>1.90 kg</td>
</tr>
<tr>
<td>Water used</td>
<td>± 1000 ml</td>
<td>± 2200 ml</td>
</tr>
</tbody>
</table>

Water used in process was calculated by calculate the difference of water added prior to cooking and remained water after processing (steaming or boiling). Initial water that was used was 2400 ml. Boiling process indeed requires much more water to ensure that all soybean is be drowned, otherwise cooking level of cooked soybean will be uneven.

However, this modified method (2) spends much more water in dehulling and filtering process. Elimination of cooking process prior to soaking resulted in uncooked and hard soybean, as the consequences the skin was harder to be removed from the beans through dehulling. Consequently, filtering need to be done more frequent to ensure that the soybean has been clean. Normaly, around 20-40 L of water is needed to normal processing (1), but for applied modified method in the research, around 60-80 water was used.

Sensory Evaluation

Simple sensory test was done through simple hedonic test, panelists were asked to give their hedonic score to produced tempe with three different methods. The result of sensory evaluation test conducted to tempe producers in Bogor revealed that most of them cannot distinguish tempe that was produced by normal method (1) and tempe that was produced by modified method.

5. Socialization and networking with other Stake-Holders & Government Institutions

Networking with Government Institutions as well as Non-Government Organization need to be maintained to improve tempe industry in Indonesia as well as to promote tempe consumption. As the continues effort to improve the tempe industry in Indonesia, ITF in collaboration with Local government has been encouraged the tempe producers to improve their business by implementing GHP in tempe production, including the use of food grade soybeans for production of high quality secondary products as soyfood diversification plan.
I. Courtesy visit of USSEC Indonesia & ITF to Mayor Bogor

USSEC and ITF was invited to the City Hall of Bogor to meet with the new Mayor of Bogor, Dr. Bima Arya Sugianto who recently officially inaugurated on April 7, 2014. Dadi Maskar, Prof Made Astawan and representative from KOPTI Bogor visited Mayor Bogor at his office on April 28, 2014. During the meeting The Mayor got explanation about ITF program in improving tempe industry in Indonesia and especially in Bogor with the existence of Rumah Tempe Indonesia. It was also conveyed the planning of visit from the US Ambassador to Rumah Tempe Indonesia. Mayor Bogor is happy to host the Ambassador.

Mayor Bogor appreciated the effort of ITF in implementing the program and he committed to support and to work hand in hand with ITF and other stakeholders in improving tempe and tofu condition in Bogor area. He was also proud with the existence of Rumah Tempe Indonesia in Bogor as Center of Excellence for Tempe in Indonesia. He wish that RTI will become as the source of inspiration for other tempe producers to improve the way of production in accordance with food safety principles. He specifically appointed the Head of Small Medium Enterprise Department and some other relevant institution in Bogor to work closely with ITF and KOPTI Bogor to implement training program and developing new tempe and tofu pilot plants in order to improve the tempe and tofu industry in Bogor.

II. The visit of US Ambassador to Rumah Tempe Indonesia Bogor on April 29, 2014

The US Ambassador for Indonesia H.E. Mr. Robert O Blake visited the Rumah Tempe Indonesia Bogor on April 29, 2014. The visit was arranged in connection with the presentation of MD Registration Certificate from Head of BPOM to Rumah Tempe Indonesia and witness the signing of Memorandum of Understanding between Indonesian Soybean Association (AKINDO) and the Indonesian Tempe Forum. There was also Tempe Culinary Festival presented at the RTI during the event.

The Ambassador Blake arrived in the RTI at 9 AM as it scheduled. He was warm welcomed by Bogor Mayor, Dr. Bima Arya and Head of BPOM, Dr. Roy
Sparringa. The event was started at 9.15 AM with a speech & presentation by Prof. Made Astawan, ITF Chairman. He explained the implementation of the ITF program with support and collaboration from various stakeholders in improving tempe industry condition in Indonesia including development of Rumah Tempe Indonesia as a center of excellence for tempe in Indonesia.

Second speech was delivered by by Dr. Bima Arya, Mayor of Bogor. He warm welcomed H.E Ambassador Blake and other VIP guests to Bogor. The Mayor expressed his proudness on the existence of RTI in his area and wished the other tempe produces learn from the RTI and apply the knowledge to improve the food safety and hygiene in the tempe production process.

The third speech was delivered by Head of BPOM, Dr. Roy Sparringa followed by the presentation of MD certificate issued by BPOM to RTI. MD certificate is food product registration number given for modern food processors. By having this MD, RTI is no longer village/home industry and its food safety level is considered on par with modern food manufacturers. A ceremony of sponsorship commitment from the AKINDO (Indonesian Soybean Importers Company Association) to ITF. AKINDO agrees to provide funding support to the ITF program in product development and researches activity.

Last session in the room was speech/remark from H.E. Ambassador Blake. The Ambassador expressed his gratitude with the work of ITF and other stakeholders in improving tempe industry conditions in Indonesia. He said that tempe is a good for agricultural trade. The Ambassador fully support the trade in soybeans as well as other agricultural goods, and he assured that the United States is a reliable source safe, quality food.

Just as important, U.S. soybeans bring real advantages to Indonesians. The same way that Indonesia provides the United States with high quality, low-cost food products like shrimp, cocoa, or coffee. U.S. soybeans ensure that Indonesians have access to high-quality foods at the lowest possible cost. Trade is especially important to the tempe industry, which is dominated by small holders. These food producers, who labor under demanding conditions, know that the value of their work is ensured by reliable access to high-quality, low-cost soybeans.

After the ceremony event in the room, Ambassador Blake and other VIP guests visited the production facilities at the RTI. After the visit, it was proceed to the tempe culinary festival when there were several tempe-based food products were showcased. Food show on various products of tempe culinary were presented in the area, and the Ambassador enjoyed them so much.
REPORT ACTIVITY THE INDONESIAN TEMPE FORUM FY 2014

Made Astawan Explained about ITF Program

Dady Maskar explained about RTI to the Ambassador & Bogor Mayor
III. Visit of Minnesota Soybean Farmer Leaders to Rumah Tempe Indonesia
Bogor, August 25, 2014

Two Soybean Farmer Leaders from Minnesota, Mr. Gene Stoel & Mr. Keith Schrader, visited Bogor, Indonesia on August 25, 2014. The purpose of the trip was to visit Rumah Tempe Indonesia and to observe Tempe - Tofu market & production in Indonesia. It was also arranged a visit to traditional fresh market to observe the selling of tempe & tofu in the fresh market. The visit to the traditional market showed that soyfood products are available in various formats such as tempe, tofu, oncom, taucho and soy sauce. Soyfood products are the important component of Indonesian diet and play an essential role in providing nutrition for the Indonesian population.

A visit to regular tempe producer member of KOPTI Bogor was also arranged to observe the actual condition of tempe production in Indonesia. Mr. Sularmo, tempe producer in Bogor who was visited is the generic type of tempe production situation in Indonesia. He produced tempe from 300 kg of soybean per day with 5 employers. The tempe production facilities and hygienic condition are need to be improved. Mr. Stoel and Mr. Schrader can witness the importance of improving the food safety and hygiene condition in the tempe production process in Indonesia.

Last visit was to Rumah Tempe Indonesia (RTI), Bogor. RTI is the learning center for tempe production in Indonesia where tempe producers can observe and learn how to produce tempe in a proper way. The Minnesota Soybean Farmers provide significant contribution through USSEC program & activities in Indonesia including development of the RTI. USSEC is one of the important stakeholders at the RTI, who have been actively involving since the conception of the idea, building development process until now.

The visit to RTI & KOPTI was also provided the opportunity to meeting with ITF Chairman & KOPTI Bogor to discuss on the tempe and soyfood industry situation in Indonesia and to the seek the potential collaboration in the near future. Mr. Stoel and Mr. Schrader were also had opportunity to meeting with Mr. Johan and Mr. Tema representative from the Indonesian Poultry Farmers Association to discuss on the market situation of poultry industry in Indonesia.
Observation at the Rumah Tempe Indonesia

Observation to the regular tempe producer

Visit to a traditional fresh market for tempe seling

Street food vendor selling ready to eat tempe
6. Regular Training & Education Program at Rumah Tempe Indonesia as Center of Excellence for Tempe Production

To achieve its objective as a learning Center of Excellence for tempe production in Indonesia, several training and education program was organized at the Rumah Tempe Indonesia.

I. Training on Tempe production for Vietnam participants at Rumah Tempe Indonesia on 5-7 September 2014

USSEC Indonesia in collaboration with Indonesian Tempe Forum (ITF) has successfully conducted a 3 Days Training on Tempe Production Process for participants from Vietnam on September 5-7, 2014 at the Rumah Tempe Indonesia, Bogor. As much as 7 participants; 4 from catering and restaurant practitioners, 2 representatives from trader companies & 1 USSEC Vietnam participated in the program. The objective of the training was to provide knowledge on the nutrition value and health benefit of tempe as well as to provide skill on how to produce tempe. The training was designed in the interactive lecture session and practical group work to provide best understanding by the participants. The lecture sessions consisted of the History, Nutrition and Health Benefit of Tempe by Prof. Made Astawan and Food Safety Principle in the Tempe Production by Dady Maskar.

The practical work session was held in the RTI production facilities, covering the detail step how to produce tempe as well as culinary session how to cook and to process tempe into Indonesian, Vietnamese and Western Style. Each participant got one bag 500gr of Ragi (fermentation starter) to bring back home. They were encourages to try their own tempe production at home and share the result to the facilitators. The facilitators are committed to provide online support in the tempe production process.

There were positive feedbacks from the participant’s evaluation. They found the training is beneficial and increase their knowledge on how to process tempe. There is a big opportunity of tempe to be introduced to Vietnam, especially for Vegetarian society. Follow up activities need to be implemented to ensure the tempe introduction to Vietnam market is in a good track.
II. Visit of Rustono, “King of Tempe in Japan” to Rumah Tempe Indonesia Bogor

Rustono, a Javanese origin who run tempe business in Kyoto, Japan, visited Rumah Tempe Indonesia, Bogor on 25 January 2014. The visit of Rustono to Bogor was facilitated by the Japan Indonesia Kaizen Center (JIK-C) with objective to share his experience in developing and promoting tempe in Japan to the tempe producers in Bogor. It was tour and observation to the RTI’s facilities and discussion session with KOPTI Members and Tempe producers in Bogor.

Rustono’s effort in developing and promoting tempe in Japan has been published in many mass media national and international. He has inspired many tempe producers in Indonesia by the struggle and hard work in building tempe business in Japan. Rustono, who worked in a Japanese food factory for three years, started his own business without initially knowing anything about tempe. He started from scratch and taught himself to make traditional tempe using yeast he brought back from Java. Dozens of times his recipes failed, but he soon realized that the water he was using was affecting the process. He then decided to use water from a mountain spring instead, and sure enough, it worked. Rustono returned to Java and visited about 40 tempe factories in the cities and villages, trying to find the...
perfect recipe. Each had an entirely different method and approach to making tempe, until finally he came up with his firm recipes and method. He started to selling the product to Indonesian expatriates living in Japan. Word spread quickly, and soon he had Japanese people seeking out this new delicacy.

In Indonesia, where tempe is widely available and inexpensive, people may think nothing of this food. But Rustono’s expertise has seen him invited to universities in Japan to speak as a guest lecturer. Currently his brand, Rusto’s Tempeh, has become widely popular with his customers, 60 percent of whom are Japanese.

Rustono graefull with the existence of Rumah Tempe Indonesia as center for excellence for tempe development in Indonesia. He sugested to develop another tempe pilot plant in other area of Indonesia. The discussion session with Rustono had inspired tempe producers in Indonesia on the great opportunity of tempe as a healthy soyfood product that widely acceptable both in national and international level. Rustono expressed his willingness to contribute in the further event at national scale, such as seminar, talkshow to inspire as many people as possible on the miracle of tempe for health as well as economic benefit.
7. Training, Monitoring & Duplication of GHP Tempe Project

Application of GHP in the tempe production has been applied in Pekalongan, Semarang, Bogor, Surabaya and Bekasi. Several training and monitoring activities were implemented during 2014.

I. Good Hygienic Practices Training for Tempe and Tofu Producers, Jakarta 14 April 2014

On April 14, 2014, USSEC Indonesia in collaboration with the Indonesian Tempe Forum and Mercy Corps Indonesia has successfully conducted Good Hygienic Practices & Food Safety Training for Tempe and Tofu producers at the Tempe & Tofu production center KOPTI South Jakarta. The training was participated by 22 tempe producers and 6 tofu producers who are KOPTI Member of South Jakarta. The objective of the training was to provide knowledge on the GHP Concept and its application in the production of tempe and tofu. Good Hygienic Practices (GHP) is one of important guidelines to be implemented by food industry. The GHP describes how to produce tempe and tofu which are safe, have good quality, and not causing harm to those who consume the product.

Dady Maskar of USSEC Indonesia and Prof. Made Astawan, Chairman of the Indonesian Tempe Forum were facilitated the training using the module developed by ITF on Food Safety & GHP. Prof. Astawan, explaining Nutrition value of tempe & tofu and the opportunity for product development and diversification products as well as packaging method to improve the shelf life of tempe and tofu. Dady Maskar explained the concept of Good Hygienic Practices and the application in the tempe & tofu production process. Good Hygienic Practice (GHP) is essential in food establishments including tempe & tofu production. It provides a minimum degree of safety.

The tempe and tofu production centers of KOPTI South Jakarta was built in 1996 and had recently renovated with the support from PT FKS Multi Agro, a soybean importer company. USSEC & ITF has involved since the beginning of the renovation process by providing advice in the production layout and design concept to comply with Food Safety, GHP and HACCP principles. After renovation, the production facilities and equipment are meeting the food safety requirement. The production equipment made from stainless steel food grade material and the production layout was designed to minimize the cross contamination chance in the production process.

When the equipment and facilities are meet the food safety requirement, the next challenge is to prepare the food handler; tofu and tempe producers. They need to be equipped with the sufficient knowledge on Food Safety and GHP. Next step is to develop SOP (Standard Operation Procedures) to be implemented in the production center. The biggest challenge is to change the attitude. Tempe and tofu producers have been producing tempe and tofu in the traditional method, it is difficult to change the attitude. That’s why continuous education training and assistance is needed.
It is important to provide continuous assistance in this production center until its ready with a proper system and SOP to implement GHP in the tempe and tofu production process. Learning from the success story of the Rumah Tempe Indonesia in Bogor, USSEC & ITF will collaborate with Mercy Corps and other stakeholders to develop this tempe & tofu production center as another Center of Excellence for tofu and tempe production center.
II. Development of Tempe Pilot Production House in Gunung Kidul, Yogyakarta

KOPTI (Cooperative/Association of Tempe and Tofu Producers) branch Gunung Kidul, Yogyakarta has been developed a Tempe Pilot Production house called Rumah Tempe Indonesia (RTI) Gunung Kidul. The facility is located in KOPTI Office Gunung Kidul, Yogyakarta. The establishment of this facility was initiated and supported by Mercy Corps International Indonesia and the Indonesian Tempe Forum. They were inspired by KOPTI Bogor with its Rumah Tempe Indonesia (RTI) who serve as learning center for KOPTI members and other tempe producers in the surrounding area.

The development of Tempe Pilot Production House is one of good and strategic movement by the KOPTI team to improve the tempe production practices in the area. Similar with the majority of tempe producers in other area, poor food safety and poor hygiene practices are still occurred in the tempe production process. Learned from the success story of the RTI Bogor, the existence of the similar facility is expected to inspire the tempe producers in Gunung Kidul and its surrounding area to improve their hygiene and food safety in the tempe production. In fact, training and education session has been implemented several times by KOPTI in collaboration with university as well as with local government. However the training and education activity alone is not sufficient to improve the condition. They need a tempe pilot production house as an example for KOPTI members and other tempe producers to learn how to produce tempe in a hygienic condition and proper way. RTI Gunung Kidul is projected to be center of excellence as learning center for tempe production in accordance with the Good Hygienic Practices and Food Safety principles.
8. Involvement at the National Committee for Codex Standard Development

The Indonesian Tempe Forum has been acknowledged as an expert member of the National Committee for Codex Standard Development for tempe. Prof. Mary Astuti on behalf of ITF and Gajah Mada University appointed as scientific chairwoman at the National Committee for Standard Development for tempe. The committee consisted of expert from Universities, National Standardization Board, Ministry of Industry, Ministry of Trade, Ministry of Health, Ministry of Agriculture and national Agency for Drug and Food Control. The Tempe Standard has been adopted as Regional Standard for Tempe (Codex Stan 313R-2013).

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