



**Asia-Pacific
Economic Cooperation**

2016 APEC Workshop on Strengthening Public-Private Partnerships to Reduce Food Waste at Retail and Consumer Levels

**Agricultural Technical Cooperation Working Group (ATCWG)
Policy Partnership of Food Security (PPFS)**

September 2016

APEC Multi-Year Project: “Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain” (M SCE 02 2013A)

Prepared by

Dr. Ching-Cheng Chang

Research Fellow

Institute of Economics, Academia Sinica

128 Academia Road, Section 2, Nankang, Taipei 11529, Taiwan

Tel: +886-2-2782-2791 ext. 201

E-mail: emily33662666@gmail.com; emily@econ.sinica.edu.tw

Dr. Tony Shih-Hsun Hsu

Professor

Department of Agricultural Economics, National Taiwan University

No. 1, Sec. 4, Roosevelt Rd., Taipei 10617, Taiwan

Tel: +886-2-3366-2665

E-mail: m577tony@gmail.com

Produced by

Department of Agricultural Economics, National Taiwan University, Chinese Taipei

No. 1, Sec. 4, Roosevelt Road, Taipei 10617, Taiwan

Tel: + 886-2-3366-2666 | FAX: +886-2-2363-7372

Website: apec-flows.ntu.edu.tw

For

Asia-Pacific Economic Cooperation Secretariat

35 Heng Mui Keng Terrace

Singapore 119616

Tel: (65) 68919 600

Fax: (65) 68919 690

Email: info@apec.org

Website: www.apec.org

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Outcomes Report
“APEC Workshop on Strengthening Public-Private Partnerships to Reduce Food Waste at Retail and Consumer Levels”

Project Number	MYP SCE 02 2013A
Project Title	Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain
Proposing Economy	Chinese Taipei
Seminar Title	APEC Workshop on Strengthening Public-Private Partnerships to Reduce Food Waste at Retail and Consumer Levels
Seminar Location	Piura, Peru
Seminar Date	September 22, 2016

Project Overseer Information:

Name: Mr. Chun-Yen Chen

Title: Director General of Department of International Affairs

Organization: Council of Agriculture, Chinese Taipei

Comment:

Please contact Dr. Ching-Cheng Chang at emily@econ.sinica.edu.tw

I. Introduction

According to UN research, roughly one-third of the edible parts of food produced for human consumption is lost or wasted globally per year, totaling 1.3 billion tons annually. Therefore, it is of vital importance to strengthen partnerships among the public and private sectors of APEC economies in developing policy recommendations and solutions for reducing post-harvest losses and waste, as well as enhancing food quality and safety so as to contribute to food security in the Asia-Pacific region.

Since APEC is composed of developed and developing economies, the food loss issue raises more concerns to developing economies whereas the food waste issue to developed economies. The project aims to address post-harvest losses in all stages of the entire food supply chain in the APEC region by strengthening public-private partnership. This project is designed to be implemented in three phases within five years.

In Phase I (2013), a three-day seminar was held in August 2013 in Chinese Taipei, providing (1) a broad understanding of post-harvest food losses; (2) identifying key issues and challenges; (3) formulating the preliminary methodology on food crops; (4) deliberating on the strategies and action plans of cooperation among APEC economies and facilitating exchanges of best practices from public and private sectors among APEC economies; and (5) promoting exchanges of experience-sharing among APEC economies. In 2014, the “APEC Seminar on Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain of Fruits and Vegetables” was held on September 15, 2014 in Beijing, People's Republic of China.

In 2015, the “APEC Expert Consultation on Assessment Methodology of Fishery and Livestock Losses” was held on July 16-17, 2015 in Taipei, Chinese Taipei. The main purpose of the consultation was to review the current status and future prospects for reducing losses in the Asia Pacific fisheries and livestock supply chain by sharing current methods and approaches to data collection during loss assessment. The 2015 series of seminars undertaken for this project concluded in September in Iloilo with the Seminar on Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain of Fishery and Livestock. The main purpose of the seminar was to review the status and future outlook for reducing postharvest losses in the Asia Pacific fishery and livestock supply chain. Case studies from industry were presented by industry representatives and scholars and discussions were held to identify key concerns and possible approaches to promoting postharvest loss prevention technology and policies.

In 2016, the “APEC 2016 Expert Consultation on Food Losses and Waste in Retail and Consumption” was held on July 18th and 19th in Taipei, Chinese Taipei. The consultation served as a forum for experts from industry and academia to discuss the wide-reaching implications of food loss and waste in the retail and consumption levels. During the event, various methods of loss and waste reduction, the status quo of data availability, the economic impact of food loss and waste in retail and consumption, and further related topics were discussed in detail. The results of the expert consultation were further developed during the “APEC Workshop on Strengthening Public-Private Partnerships to Reduce Food Waste at Retail and Consumer Levels” in September 2016 in Piura, Peru. During the workshop, representatives from the public and private sector were able to elaborate on methods to combat food loss and waste in retail and consumption as well as indicate the current trends in their respective economies. This document gives a summary

overview of each presentation and recommendations given.

II. Summary of the Workshop

1. Participants

The 2016 Seminar on Strengthening Public-Private Partnership to Reduce Food Waste at Retail and Consumer Levels was attended by around 70 participants. The APEC member economies that participated in the Consultation were: Australia, Canada, the People's Republic of China, Chile, Indonesia, Japan, New Zealand, Malaysia, Peru, the Philippines, Russia, Singapore, Thailand, Chinese Taipei, the United States, and Vietnam.

2. Opening Remarks (Session 1)

Audio transcription from the opening remarks of Ms. Carmen Azurin, Minister, Ministry of Foreign Affairs, Peru

Peru

Ms. Carmen Azurin

Audio transcription from the opening remarks of Mr. Juan Francisco Escobar, General Director of Budget and Planning, Ministry of Agriculture and Irrigation, Peru

Peru

Mr. Juan Francisco Escobar, Ministry of Agriculture and Irrigation, Peru

Good morning Ms. Dong-Chong Hsiou and Dr. Feng Dongxin and good morning to the representatives of the respective economies.

On behalf of the minister of agriculture and irrigation of Peru, Mr. José Manuel Hernández Calderón, it is our pleasure to welcome you to the APEC Workshop on Strengthening Public-Private Partnerships to Reduce Food Waste at Retail and Consumer Levels.

In Peru, food waste during harvest and storage can cause loss in income for small farmers and higher prices for consumers. Food waste is produced mainly during the first stages of the food value chain and cannot be avoided by small farmers due to their financial and different technical limitations during harvest practices and also because of a deficit of warehouses, storage and refrigeration.

Policies, strategies and mechanisms to strengthen the supply chain are required through direct support of farmers and facilitating investment in infrastructure, transportation, and equipment as well as well expansion of the food packing industry that could help to reduce the quantity of food loss and waste.

We hope that after this workshop we will be able to promote changes in practices concerning food waste within our economies. Thank you for your attention.

Audio transcription from the opening remarks of Dr. Feng Dongxin, Lead Shepherd, Agricultural Technical Cooperation Working Group, APEC

Distinguished participants, ladies and gentlemen, good morning.

Thank you very much for inviting me to join this workshop and it is indeed my great honor and privilege to see a few of us on behalf of the ACTWG in the capacity as the ACTWG lead shepherd of the working group

First of all please allow me to express my sincere congratulations to the opening of this workshop. Being home of around 70% of global hunger production, Asia and Pacific has the largest number of hungry people across all regions and food security has been always been of tremendous importance in this region. It is well known that reducing food loss is an important key to improve food security. According to a study conducted by FAO in 2011 roughly 1/3rd of food production for human consumption is lost or wasted –globally- which amounts to about 1.3billion tons per year and mostly occurs at the retail and consumer levels. Food is lost throughout the supply chain from initial agricultural production down to final household consumption. Therefore, it is important to combine all available resources from public and private sectors of each economy to explore a suitable way to develop policy recommendations and solutions on reducing post-harvest food losses in the entire supply chain

As we are aware, this workshop is one of the consecutive activities of the APEC funded project entitled “Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain” which is one of the most important multi-year APEC funded projects conducted by the ACTWG member economies.

I do highly value and acknowledge that the project overseer, Chinese Taipei, has always been making endeavors to move forward this project to achieve the set of objectives and fruitful outcomes together with the support of co-sponsors and the APEC secretariat, of course.

So, based on the progress reports delivered yesterday during the ACTWG annual meeting we understood and learned that a lot of progress has been made since the implementation of this multi-year APEC project in 2013 and this project has been playing an important role in experience and knowledge sharing, information exchange, and capacity development, etc.

As one of the activities during the implementation of this multi-year APEC funded project, I hope that this workshop can provide as a nice platform for participants and participating member economies to exchange views and experiences around the objectives of this workshop and finally of course with the aim of enhancing collaboration among member economies.

So finally, I wish the workshop good success. Thank you very much

Direct transcription from the opening remarks of Dr. Dong-Chong Hsiou, Deputy Minister for International Affairs, Council of Agriculture, China:

Chinese Taipei

Ms. Dong-Chong Hsiou, Council of Agriculture, Chinese Taipei

Good morning, Distinguished Speakers and Participants, Ladies and Gentlemen.

It is my great pleasure to join you in opening of the 2016 APEC Workshop on Strengthening Public-Private Partnership to Reduce Food Waste at Retail and Consumer Levels. On behalf of Chinese Taipei and her Council of Agriculture, I would like to welcome all of you to this very important gathering. Most of all, please allow me to thank our colleagues, H. E. Minister Carmen Azurin, and Director General Juan Francisco Escobar and their capable teams from Ministry of Foreign Affairs, and Ministry of Agriculture and Irrigation, Peru for assisting with organizing the Workshop.

Food loss and waste has been flagged as a key challenge to global food security. With an increasing population, limited resources of water and arable land, and climate change, food security cannot rely on enhancing food production alone. There exists the fact that we are producing food that is lost and wasted along the supply chain. The FAO estimates that around 1.3 billion tons or one-third of the food produced globally for human consumption has been lost or wasted each year since 2011.

In the 2013 APEC Economic Leaders' Declaration, Leaders called for the implementation of the APEC Food Security Road Map Towards 2020 and the reduction of post-harvest losses and waste. Specifically, the Road Map has stated that reducing food losses is as an important approach to achieving the goal of the APEC Food System by 2020. In addition, the significance of reducing food losses is also stressed in the 2014 Beijing, 2012 Kazan and 2010 Niigata Declaration on APEC Food Security. Three declarations indicate that reducing post-harvest losses will greatly contribute to sustainable agricultural growth and hence APEC food security.

To address the concerns of regional food security, Chinese Taipei's APEC multi-year project entitled "Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain" is implemented in an efficient and systemic manner aiming to reduce post-harvest losses and waste in all stages of the entire food supply chain in the APEC region. Concerning that consumers and retailers are the main culprit behind the food waste problem, around 46% of the estimated 1.3 billion tons, or 598 million tons, is attributable to consumer and retailer behavior and the total amount of the food wasted could support 800 million people who are below the poverty line in the Asia-Pacific region for 1.32 years. We will review the current status and future perspectives of reducing food waste in the retail and consumer sectors in the Asia Pacific region in this workshop. It is designed to promote and to identify key strategies for all stakeholders, from public, private, and academic sectors to exchange ideas and application experiences, and to find global partners promoting food waste reduction technology and

solutions in the retail and consumer sectors. It also serves to foster communication among smallholders, business groups, researchers and decision makers for further collaborations in food loss assessment methodologies and toolkit development and for working in a wide variety of agricultural trade and sustainable development related policy issues.

We welcome insights from the private and public partners gathered here today and look forward to better coordination and collaboration towards eliminating food losses and waste. By joining forces and strengthening public-private partnerships we will surely make progress in generating policies that further reduce costs, improve food security, and increase assessment efficiency to henceforth benefit the members of the entire APEC community. I believe our efforts here will help all APEC member economies achieve the goals of the APEC Food Security Roadmap Towards 2020 and meet the United Nations' Millennium Development Goals for hunger alleviation.

In closing, I would like to register my thanks again to all those who are involved in organizing this workshop. I look forward to a successful workshop and wish all participants a wonderful and rewarding experience. Thank you!

3. Summary of Presentations (Session 1)

Summary of Keynote Speech:

**Chaired by: Dr. Ching-Cheng Chang,
Food Security and Policies for Innovative Solutions to Reduce Food Waste: Overview,
Issues and Challenges**

Topic 1: Public-Private Partnerships and Social Innovations to Reduce Food Waste

Presenter: Dr. Toine Timmermans, Wageningen UR, The Netherlands..

- Current population and consumption trends pose a significant threat to food security; not only is the global population growing, but ongoing urbanization and increasing meat consumption in developing countries further strain resources.
- As a response, the European Union has adopted the targets set in the Sustainable Development Goals to halve per capita food loss and waste by 2030.
- Dr. Timmermans illustrated the food loss and waste situation in the European Union, as strong institutional efforts to quantify waste amounts have been made to gather data.
- In particular the FUSIONS project engages various private and public stakeholders as well as establishing reliable information sources and data
- ReFresh, an initiative under the Horizon 2020 research program, aims to establish a shared framework along the entire supply chain to allow for targeted waste prevention.

Topic 2: Consumers' Food Choices and the Opportunity to Create Partnerships and Incentivize Private Sectors in Reducing Food Waste in APEC Region

Presenter: Dr. Miranda Miroso, University of Otago, New Zealand, What Gets Measured Gets

Managed

- Dr. Mirosa elaborated on the crucial role consumers play in the generation of waste; particularly in developed countries consumers tend to waste a significant amount of food.
- A lack of kitchen skills, such as knowledge of proper storage and preparation, as well as immunity to the financial costs of wasting food contributes to an environment of easy disposal.
- In New Zealand, the profile of those who waste significant amounts of food is broad; young adults, high income individuals, as well as families with young children tend to waste food.
- Consumer education initiatives are seen as key in helping alleviate this issue. Education on topics such as the meaning of different “best before” labeling or proper storage methods for fruits and vegetables can help effectively reduce waste.
- The public sector can contribute to the reduction of food waste by encouraging retailers to actively donate food.

Topic 3: The Food Loss and Waste Accounting and Reporting Standard: What Gets Measured, Gets Managed

Presenter: Ms. Kai Robertson, World Resources Institute, United States of America

- The World Resources Institute is a non-profit NGO that works closely with the FAO and other multi-national institutions to establish a waste accounting protocol
- The aim is to homogenize waste definitions and accounting standards to allow for comparability across the public and private sector in different countries.
- Different quantification methods are also discussed, such as volume, counting, and weighing based approaches.
- However, this standard is not compulsory and designed as a voluntary guideline. Furthermore, the WRI does not collect or aggregate the data, but rather encourages public and private institutions to use the accounting standard for comparison and benchmarking.

4. Summary of Presentations (Session 2)

Summary of Keynote Speech:

Chaired by Dr. Amelita R. Salvador

Governance in Food Waste Reduction: Issues, Challenges, and Best Practices

Topic 4: Valuation of Food Loss in the United States

Presenter: Dr. Jean Buzby, U.S. Department of Agriculture, the United States of America

- Dr. Buzby introduced the Loss-Adjusted Food Availability (LAFA) data series, which provides estimates of per capita food availability, collected by the Economic Research Service (ERS).
- Using this data allows to estimate food loss and waste for over 200 commodities at the production, retail, and consumption stages.

- By establishing waste ratios, the USDA estimates the total monetary loss incurred by food loss and waste; the results set the cost of food loss and waste at US\$522 per capita.
- Zero waste is not feasible due to the increasing costs in waste reduction, however, private-public partnerships could help alleviate the issue significantly.

Topic 5: Best Practices Towards the Reduction of Food Waste: Kyoto City’s Approach, Actions, and New Plan

Presenter: Mr. Kentaro Mayr on behalf of Ms. Junko Katsumi, Director of Waste Reduction Promotion Section, Environment Policy Bureau, City of Kyoto, Japan

- Kyoto city’s presentation focused on the approaches the city took in order to become cleaner and more attractive to tourists.
- Kyoto city takes direct trash samples, which are subsequently classified in a two stage scheme, from households and businesses. This procedure gives the city additional insights into sources and contributors to food loss and waste.
- Surprisingly, roughly 17% percent of household food waste is disposed while completely untouched. Furthermore, 32% of the untouched food is thrown away before the best before date.
- To alleviate the waste situation, Kyoto has been working on initiatives to incentivize consumers and retailers to reduce food waste. Education campaigns aimed at consumers as well as benefits for food waste minimizing businesses have helped reduce waste.
- Ultimately, Kyoto aims to achieve a 50% waste reduction from peak levels by 2020.

(The address was followed by a 7 min video detailing Sophil’s efforts in sardine conservation, proper management, and sustainability)

Topic 6: Determinants of Consumer Food Waste Behavior in Canada

Presenter: Dr. Deepananda Herath, Agriculture and Agri-Food Canada, Canada

- Dr. Herath showed the environmental impact of food loss and waste as well as an analysis of the determinants of food loss and waste.
- The farther along the supply chain losses occur, the higher the environmental impact will be. This is due to storage, transportations, and so forth contributing to the carbon footprint as food moves along the supply chain.
- Current strategies in the developed countries have been to “nudge” consumers to reduce food loss and waste by appealing to moral and financial reasoning. However, due to the low cost of food, such an approach may not prove fruitful.
- Dr. Herath’s research shows that consumers who are more concerned about moral and ethical attributes of food tend to discard less.

5. Summary of Presentations (Session 3)

Summary of Keynote Speech:

Chaired by Dr. Shih-Hsun Hsu

Industry Panel: Innovative Technologies and Cooperation of Public and Private Sectors against Food Waste

Topic 7: Food Packaging Contributions in Reducing Food Waste

Presenter: Mr. Milan Iglendza, Toppan USA Inc., Japan/USA

- Mr. Iglendza gave insights into how modern packaging materials and technologies can aid in the prolonging of food shelf-life.
- In particular, flexible and re-sealable packaging in the form of laminated plastics allow fruits, vegetables and other foods to remain fresh while also being easy to transport.
- Furthermore, flexible packaging requires less energy during transportation and therefore benefits the environment; the reductions can amount to up to 85% less energy spent during production.
- Lastly, innovative packaging is capable of detecting temperature changes within pouches, which can serve as an indicator of spoilage.

Topic 8: GLAD® Gladware - Love Food More, Waste it Less: Better Living Campaign in New Zealand

Presenter: Dr. Miranda Miroso, University of Otago on behalf of the Clorox Company, New Zealand

- Dr. Miroso presented GLAD® Gladware's initiatives to reduce food losses and waste in New Zealand as well as developments in home food packaging.
- Households in NZ waste roughly \$560 worth of food annually of which half is comprised of vegetables and fruits. Furthermore, while a lack of storage knowledge exists, interviews uncovered that a willingness to learn and change behavior exists.
- Glad began a multi-platform awareness raising campaign using media such as print, television, and social media to educate on proper food storage and handling.

Topic 9: Reducing Food Waste and Food Banks in Peru

Presenter: Ms. Marita Guzman, Food Bank, Peru

- Ms. Guzman presented the current state of food banks in Peru; the first food bank in Lima opened in July 2014 and is modeled after other countries' example.
- 7 million people live below the poverty line in Peru while 7 million tons of food is discarded by supermarkets annually.
- As an intermediary, the food bank receives food donations, which are oftentimes goods that have minor packaging flaws and so forth, and distributes them to those in need; cost of transportation is usually borne by the donor.
- Lastly, the food bank provides educational services to ensure that recipients are aware of nutritional concepts.

Topic 10: Better to our Planet through Rigorous Waste Reduction and Recycling

Presenter: Ms. Rita Lin, McDonald's Taiwan, Chinese Taipei

- Ms. Lin gave insights into how a global corporation like McDonald's handles food loss

and waste.

- Serving 69 million customers daily, food waste can impose significant costs on McDonald's.
- Waste stems from a multitude of steps in the production process, such as over production, delays, damage during transportation, and handling mistakes by the workforce.
- By cooperating with franchisees, the McDonald's corporation aims to create a holistic waste and recycling plan that allows for maximum resource usage and energy recovery.
- To do so, the company is streamlining the cooking chain within restaurants by dedicating stations to each step of the cooking process. This has helped reducing food waste by up to 30% in restaurants.
- Through demand analysis and forecasting, McDonald's has been reducing inventory at hand and over purchases from suppliers.
- Furthermore, old cooking oils are reused in the generation of biodiesels, which has a 100% conversion rate.

6. Summary of Presentations (Session 4)

Summary of Keynote Speech:

Chaired by Dr. Miranda Miroso

Food Waste Policy Design: Understanding the Cost and Benefit of Reducing Food Losses and Waste

Topic 11: Impact Assessment of Reducing Food Loss and Waste on Food Security in the APEC Region

Presenter: Dr. Shih-Hsun Hsu, National Taiwan University, Chinese Taipei

- Prof. Hsu gave a quantitative forecast on possible economic benefits a reduction in food loss and waste can generate.
- Countries in different stages of economic development incur losses at different stages of the production and consumption cycle; developed countries waste most food in consumption while developing countries lose most food during production.
- Prof. Hsu conducted research on how the different APEC economies will benefit if reductions in food loss and waste are tailored to their respective stage of economic development.
- Upper and lower middle income economies¹ in particular benefit from loss reduction along the supply chain, which strengthens food security and international competitiveness.
- Due to economic benefits tied within food loss and waste reduction, a more ambitious goal than the current 20% reduction should be considered among the APEC economies.

Topic 12: Reducing Food Waste in the Retail and Processing Stage in the Philippines

Presenter: Dr. Amelita R. Salvador, PhilMech, the Philippines

- Dr. Salvador gave insights into how the Philippine Center for Postharvest Development

¹ Countries with GDP per capita ranging from US\$12,000 to US\$4,000 and US\$4,000 to US\$1,000, respectively.

and Mechanization (PhilMech) is aiding farmers in the Philippines in developing and adapting modern farming technology and knowledge.

- The distribution of modern rice mills to farming cooperatives ensured a milling recovery of more than 65%
- Furthermore, PhilMech is actively recommending methods to diminish food waste; instead of discarding visually unappealing produce, minimal processing is encouraged to avoid unnecessary losses.
- Lastly, the PhilMech is cooperating with government agencies to promote food conservation and responsible consumption among citizen through awareness campaigns.

Topic 13: Food Loss and Waste Reduction towards a Food Secured Future in APEC: Summary of Multi-Year Project and Policy Recommendations

Presenter: Dr.Ching-Cheng Chang, Academia Sinica and National Taiwan University, Chinese Taipei

- Dr. Chang's presentation focused on the scope and accomplishments of the APEC multi-year project on food loss and waste along the entire supply chain.
- The project is based on a three pillar approach, which focuses on:
 - Food Loss & Waste Assessment
 - Toolkits and Best Practices
 - Capacity Building Seminars/Expert Consultations
- In particular, capacity building and standardization of terminology were stressed as key factors in advancing food loss and waste reductions among the APEC member economies.
- Going forward, the focus is set on creating a comprehensive inventory survey of current initiatives and programs to reduce food waste. Furthermore, sharing best practices among member economies and strengthening public involvement in reducing food loss are to be discussed more thoroughly.

Closing Remarks

Direct transcription from the opening remarks of Ms. Dong-Chong Hsiou, Deputy Minister for International Affairs, Council of Agriculture, Chinese Taipei:

Chinese Taipei

Ms. Dong-Chong Hsiou, Council of Agriculture, Chinese Taipei

Distinguished Speakers and Representatives, Ladies and Gentlemen:

On behalf of Chinese Taipei, I would like to extend our sincere appreciation for your active participation and valuable contributions. After a full day's intensive meeting, I believe that all the speakers and participants have fully shared your expertise and viewpoints on all issues related to food waste reduction at retail and consumer levels. I hope you all have found the workshop informative, useful and worth your while.

By sharing further case studies, best practices and food waste assessment progress from across our economies, I believe that we have learned much from our partners, both public and private and all of us will leave with many tangible solutions that address the food waste challenges of our home economies. I am also delighted to highlight that the excellent attendance at this workshop has engaged our large group in refining solutions and recommendations. Our discussion today has yielded a holistic policy statement and actionable recommendations for reducing food waste in the retail and consumer sectors and bring a clear direction for the high level policy dialogue of food loss reduction in the coming 2017.

In closing, I would like to take this opportunity to thank you all once again for providing your expertise and active engagement throughout today's workshop.

My special thanks go to H. E. Minister Carmen Azurin, Director General Juan Francisco Escobar and their capable teams from Ministry of Foreign Affairs, and Ministry of Agriculture and Irrigation, Peru for all the thoughtful arrangement to make this workshop a wonderful APEC event here in Piura.

On behalf of Chinese Taipei and her Council of Agriculture, I hope all of you enjoy the rest of your stay in Piura and have a good flight home.

Thank you very much!

V. Appendix

1. APEC Seminar on Strengthening Public-Private Partnership to Reduce Food Waste at Retail and Consumer Levels

List of Speakers (by order of Sessions)

Economy	Session	Title	Last Name	First Name	Position	Institute
The Netherlands	1	Dr.	Timmermans	Toine	Program Manager	Wageningen UR
New Zealand	1	Dr.	Miroso	Miranda	Senior Lecturer	University of Otago
The United States of America	1	Ms.	Robertson	Kai	Lead Advisor	World Resources Institute
The United States of America	2	Dr.	Buzby	Jean	Branch Chief	U.S. Department of Agriculture
Japan	2	Ms.	Katsumi	Junko	Director	Environment Policy Bureau
Canada	2	Dr.	Deepananda	Herath	Senior Economist	Agriculture and Agri-Food Canada

Japan	3	Mr.	Iglendza	Milan	Sales & Marketing Manager	Toppan USA Inc.
New Zealand	3	Dr.	Mirosa	Miranda	Representative on behalf	CLOROX Company
Peru	3	Ms.	Guzman	Marita		Food Bank
Chinese Taipei	3	Ms.	Lin	Rita	Senior Director	McDonald's Taiwan
Chinese Taipei	4	Prof.	Hsu	Shih-Hsun	Professor	National Taiwan University
The Philippines	4	Dr.	Salvador	Amelita R.	Supervising Science Research Specialist,	PhilMech
Chinese Taipei	4	Prof.	Chang	Ching-Cheng	Research Fellow and Professor	Academia Sinica & National Taiwan University

3. Selected Photographs



ATCWG Workshop on Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain

Piura, 22 September 2016

