**Summary of Activities, Findings and Recommendations from the**

**APEC High Level Policy Dialogue on Enhancing Public and Private Partnership to Reduce Food Losses and Waste for a Sustainable APEC Food System**

(Draft Version 6, July 23, 2018)

1. We, the high level representatives of APEC member economies in attendance at the APEC High Level Policy Dialogue on Enhancing Public and Private Partnership to Reduce Food Losses and Waste for a Sustainable APEC Food System, held in Taipei from June 14 to 15, 2018, acknowledging the urgent need to reduce food losses and waste (FLW) in the supply chain to achieve food security and a sustainable food system, hereby: (I) recognize the activities conducted under APEC Multi-Year Project APEC MYP SCE 02 2013A to reduce FLW; (II) summarize the findings of these activities; and (III) encourage APEC member economies to adopt the following recommendations derived from these activities and findings, as listed in the corresponding sections below.
2. We recognize that APEC economies face food security challenges arising from population growth, rapid urbanization, changes in diet, natural resource constraints, inequality in income and resource distribution, and climate change.
3. We acknowledge that up to one-third, or approximately 1.3 billion tons, of food produced for human consumption each year is lost or wasted along the supply chain, representing enough food to feed the estimated 1 billion people around the world that are food insecure, and resulting in the waste of labor, water, energy, land and other resources used in producing that food.[[1]](#footnote-2)
4. We reaffirm that the reduction of food losses and waste can strengthen food security and support the attainment of a sustainable food system.
5. We take note of UN Sustainable Development Goals (SDGs) Target 12.3, which calls on governments, the private sector and individuals to, “[b]y 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.”
6. We recognize that the issue of FLW can best be addressed from three perspectives: “a systemic perspective; a sustainability perspective, including the environmental, social and economic dimensions of sustainability; and a food security and nutrition perspective, looking at how food losses and waste relate to the various dimensions of food security and nutrition.”[[2]](#footnote-3)
7. We emphasize that, under the APEC Food Security Roadmap Towards 2020, approved in 2014, the long-term goal of the Policy Partnership on Food Security (PPFS) is the attainment by 2020 of a sustainable food system sufficient to provide lasting food security to APEC member economies.
8. We recall that APEC economies committed in the APEC Food Security Roadmap Towards 2020 to “strive to reduce food loss and waste by 10% compared with the 2011-2012 levels by 2020 in the Asia-Pacific region, [and to] aim to advance beyond the Millennium Development Goals (MDGs) 2015 hunger goals,” noting that the 10% specified in that goal is an average level for all economies, with specific indicators to be developed based on each economy’s respective situation.
9. We recognize the important role of public-private partnerships in achieving food security, and welcome these partnerships as a key part of any PPFS activity, as emphasized in the APEC Food Security Roadmap Towards 2020.
10. **APEC Activities to Support the Reduction of Food Losses and Waste**
11. We recognize that, under the APEC Multi-Year Project “Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain” (APEC MYP SCE 02 2013A, hereafter “APEC MYP FLW”) and associated initiatives, APEC has undertaken a number of activities to support its objective of reducing FLW in APEC member economies.
12. We note that “A Food Loss and Waste Quantification Handbook for APEC Economies” (hereafter “APEC FLW Handbook”), produced under APEC MYP FLW, provides a review of food loss and waste definitions, measurement approaches and APEC case studies to support APEC member economies in developing their own systematic quantification methods to estimate FLW, while drawing on the Mass Flow Model and 2011 Food Balance Sheet of the United Nations FAO to provide baseline FLW quantity data for 19 APEC member economies.[[3]](#footnote-4)
13. We further note that the “APEC Survey on Food Loss and Waste Reduction Policy” (hereafter “first FLW survey”) was carried out under APEC MYP FLW in May 2017 with the main purpose of assessing the current progress of implementation of programs and initiatives across APEC economies to reduce FLW, and received responses from 15 APEC member economies.
14. We also note that the “APEC Survey on No-regret Solutions for Food Loss and Waste Reduction” (hereafter “second FLW survey”) was carried out under APEC MYP FLW on a continuing basis to collect the responses of APEC economies on (1) their targets, policies and strategies for FLW reduction; (2) their methodology for defining and measuring FLW; (3) their FLW diversion potentials derived from no-regret solutions[[4]](#footnote-5) and the implementation costs of those solutions; and (4) examples of public-private partnerships (PPP) to reduce FLW; this survey received responses from 15 APEC member economy representatives.
15. We note that the “APEC Project on Food Loss and Waste System” (hereafter “APEC-FLOWS”) was established as a public platform to share FLW quantification methods, to disseminate best practices and policies for reducing FLW, and to publicize the results of expert consultations and other capacity-building activities attended by APEC member economy representatives for reducing losses and waste of grain, vegetables, fruits, fishery and livestock products at each stage of the supply chain.
16. We acknowledge the close collaboration between ATCWG, OFWG and PPFS in carrying out these activities for reducing FLW and enhancing food security across APEC.
17. We also acknowledge and value the contributions to these goals made by the APEC project “High Level Public-Private Forum on Cold Chain to Strengthen Agriculture & Food’s Global Value Chain,” as well as by the APEC project “Enhancing Connectivity of APEC Grain Standards & Small Farmer and Small and Medium-Sized Enterprises’ Food Loss-Reduction Technology and Experience,” which, through enhancing connectivity of technical quality standards for grain across APEC economies, has contributed to facilitating grain trade, supporting industrial development, promoting technical progress, and reducing the grain lost and wasted during trade among member economies.
18. **Findings of Food Losses and Waste Reduction Activities in APEC Economies**
19. We have found that losses and waste of fruits and vegetables in APEC economies are 45.38% and 42.64%, respectively, because of the relatively short shelf-lives and high quality standards for these products; losses and waste of fish and seafood stands at 39.20%; losses and waste of meat averages 21.14%; losses and waste of milk and dairy products is 17.44%; losses and waste of eggs is 16.45%; and losses and waste of cereals is the lowest of all product categories examined, with losses and waste of maize at 7.61%, and wheat and rice between 15% and 19%.
20. We have also found that losses and waste of each given type of product occur differentially across the various stages of the supply chain, with proportionally more fruits and vegetables lost or wasted during production, processing and packing, and proportionally more seafood and meat wasted in distribution.
21. We have found, in the first FLW survey, that there is an average of 4.3 FLW reduction programs per APEC member economy; that developing economies are relatively more focused on reducing post-harvest losses; that developed economies are engaged in efforts to reduce food losses and waste across the entire supply chain; that developed economies also have better systems to measure food losses and waste across the entire supply chain; that developed economies are more confident of meeting the APEC goal of reducing FLW by 10% by 2020, given their current policy and regulatory initiatives; and that developing economies are less confident in their capacity to reach this goal, having reported insufficient funding and resources, a dearth of standardized and reliable data, and a lack of consumer attention on the issue of reducing FLW.
22. We have found, in the second FLW survey, that APEC member economies have implemented a variety of no-regret solutions to reduce FLW which can be sorted into three main categories: prevention solutions, which eliminate avoidable FLW at the source, including by improving cold chain infrastructure, adjusting packaging to increase the shelf life of food products, changing customer behavior, and serving smaller portions at dining places; recovery solutions, including solutions supporting food donation such as donation tax incentives, standardized donation regulation, donation matching software, donation transportation, donation storage and handling, donation liability protection, and safe donation education; and recycling solutions, under which unavoidable FLW can be composted or otherwise recycled as food or animal feed.
23. We have further found that the results of the second FLW survey reaffirm the importance of public-private partnerships in FLW reduction activities, outline what APEC member economies consider the key indicators of successful public-private partnership projects, highlight the strengths and weaknesses of these partnerships in FLW reduction activities, and suggest directions for improving public-private partnerships to reduce FLW.
24. We have further found that by implementing no-regret solutions, APEC member economies could potentially reduce collective food losses and waste by approximately 112 million tons per year and thereby achieve or exceed the APEC goal of reducing FLW by 10% by 2020; could create a diversion potential worth about $141 million per year at an average cost estimated at $29.5 million per year, creating economic value of about $112 million annually; and could, by implementing no-regret solutions to eliminate avoidable FLW of approximately 36 million meals per year and 17.8 billion gallons of water per year, reduce greenhouse gas emissions by more than 163 million tons per year, and generate at least 184,000 jobs annually.
25. We have found that the use of innovative technologies for adapting to climate change, such as on-farm procedure improvements, temperature and water-content control systems, quality control systems, packing and storage improvements, transportation improvements and other technologies recommended in the project “U.S.–APEC Technical Assistance to Advance Regional Integration” can further reduce production and post-harvest losses of agricultural products.
26. We have further found that other non-technological improvements made across the supply chain, such as improving temperature control, monitoring and handling procedures in the cold chain, can considerably reduce FLW in a cost-effective manner.
27. **Recommendations to Reduce Food Losses and Waste in APEC**
28. We encourage APEC member economies to consult the resources produced under APEC MYP FLW and to refer to relevant information and activities from the United Nations Food and Agriculture Organization (FAO), the United Nations Environment Programme (UNEP), the World Resources Institute (WRI), the Waste and Resources Action Programme (WRAP), the EU-funded REFRESH project, the Consumer Goods Forum (CGF), the World Business Council for Sustainable Development (WBCSD), the Rethink Food Waste through Economics and Data (ReFED) program, the World Food Program (WFP), the International Fund for Agricultural Development (IFAD), the Organization for Economic Cooperation and Development (OECD) and Champions 12.3.
29. We encourage APEC economies to hold regional seminars and workshops, to liaise with other relevant APEC sub-fora and international organizations, to carry out other activities to share their best practices on FLW reduction, and to publish these best practices on the APEC-FLOWS platform.
30. We encourage APEC economies to systematically measure FLW in their food systems, while also recognizing the importance of initiating active efforts to reduce FLW even without final measurements.
31. We encourage APEC economies to support the establishment of an organization to coordinate future regional programs and efforts to measure and reduce FLW.
32. We encourage APEC economies to conduct improvements, including low-cost steps that can be implemented quickly, to their cold chain systems in order to strengthen global value chains for foods and agricultural products.
33. We encourage private sector actors across APEC to implement feasible solutions to reduce FLW, recognizing that engaging the private sector in a meaningful way can help develop business strategies around FLW reduction and meet regional food security challenges.
34. We encourage the adoption of voluntary agreements between government, industry, researchers, academics, and food supply chain stakeholders to promote policies and funding initiatives for reducing FLW.
35. We encourage APEC economies to recognize that the promotion of food donation through tax incentives and the expansion of consumer education programs, such as public information about date labeling systems and proper storage for fruits and vegetables, are important parts of reducing food waste at the retail and consumer levels.
36. We encourage the development of policy environments that enable open and efficient markets, private sector investment, and gender-equitable access to factors of production, products and income, with consideration of where deregulation can address deficiencies in infrastructure, training, fairness and education to enhance FLW reduction outcomes at each stage of the food supply chain.
37. We support the APEC Services Competitiveness Roadmap (2016-2025), which encourages the development of services-related statistics to measure the services regulatory environment in APEC economies for APEC-wide actions and individual economy action, acknowledging that innovative solutions offered by finance, logistics, telecommunications and other service industry sectors are critical for reducing FLW across the supply chain.

1. Statistics by United Nations Food and Agriculture Organization (FAO). [↑](#footnote-ref-2)
2. HLPE, 2014. Food losses and waste in the context of sustainable food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2014. [↑](#footnote-ref-3)
3. The UN FAO Mass Flow Model facilitates the simple mathematical estimation of food waste across the food chain through an assessment of the change in weight and quantity of products at each stage of production. [↑](#footnote-ref-4)
4. The term “no-regret solution” refers to “Actions to reduce greenhouse gases emissions that have negative net costs (i.e. win-win solutions)” (IPCC, 2001). Here, a no-regret solution to reduce FLW refers to a solution that is beneficial or useful even without accurate measurement or reliable information, or a solution that carries a relatively low cost of implementation. [↑](#footnote-ref-5)