Agricultural Technical Cooperation Working Group
Strategic Plan 2015-2019

Agriculture substantially contributes to the economy of most APEC member economies, and the issues of food security that includes food safety are of critical importance to the region. The ATCWG will implement its activities consistent with the vision statement and action plans incorporated in the Osaka Action Agenda and relevant subsequent directions, including those identified by the First, Second and Third Ministerial Meeting on Food Security (MMFS) in Niigata in October 2010, Kazan in June 2012, Beijing in September 2014 and the APEC Food Security Roadmap towards 2020

The ATCWG provides strong technical expertise that also supports other related APEC fora. In 2010, the ATCWG provided support and recommendations to the 1st MMFS, which contributed to the Niigata Declaration on APEC Food Security. ATCWG seeks to increase interactions with other APEC fora. It also provides direct advice and support to other APEC fora, Senior Officials Meetings (SOMs), Ministers and APEC bodies aimed at improving the food security of the region. Other APEC fora include the APEC Food Safety Cooperation Forum (FSCF) and its Partnership Training Institute Network (PTIN), HLPDAB as well as the Policy Partnership on Food Security (PPFS).

1. Vision

APEC member economies have effectively addressed the issues of food security, sustainable development, climate change, and wealth creation in their food and agricultural sectors..

2. Mission

ATCWG's mission is to enhance agriculture's contribution to the region's economic growth and social well-being by promoting technical cooperation among APEC members. ATCWG seeks to strengthen agriculture's contribution to the region's economic growth, sustainable agriculture, food security specially food safety, sustainable development, and enhanced social well-being of the rural populations.

ATCWG will harness officials and experts from academia who are available to work with member economy officials, agricultural experts, the business community and as part of a dynamic network to effectively address the issues of food security, sustainable development, climate change, and wealth creation in the food and agricultural sectors through capacity building, studies, workshops, information sharing, and promoting collaborations with other APEC working groups and other regional and international organizations.

3. Critical Thrusts/Areas to Achieve Success

a. Facilitate dialogue and create opportunities to exchange views, share knowledge, information and experience among APEC member economies.

b. Enhance capacity building in food security and sustainable agriculture through workshops and projects at individual level and institutional level in terms of knowledge, skills, attitudes, and uptake of innovation outputs.
c. Improve linkages, networking capability and knowledge sharing among different groups of private and public stakeholders.
d. Facilitate trade in agro-products and promoting technology transfer to accelerate the development and prosperity of agriculture in the region.
e. Adopt new tools of science to address agricultural production and distribution problems.
f. Develop strong working relationships with other relevant APEC fora such as the PPFS, TPTWG, SMEWG, OFWG, EPWG, PPSTI, and HWG. Likewise Promote collaboration with other regional and international organizations to jointly address issues on food security.
g. Commitment to and participation in ATCWG activities and implementation of its recommendations.
h. Provide adequate funding for ATCWG proposed activities.
i. Provide special focus on the agriculture of the poor to address food security and rural poverty problems.
j. Give urgent attention to the agriculture in fragile environments to mitigate the effects of climate change, reduce the chemical fertilizer dependency and increase the resilience to natural disaster in accordance with United Nations Framework Convention on Climate Change.

4. Objectives and Key Performance Indicators (KPIs)

In light of its overarching working mechanism of promoting agricultural technical cooperation among APEC member economies, the ATCWG seeks to improve the capacity of member economies in agriculture and its related industries. Equally important, it seeks to share information and experiences in the areas of agriculture, biotechnology and natural resource management, ultimately to contribute to the region's economic growth and social wellbeing. The collective objectives of ATCWG and Key performance indicators (KPIs) are enumerated below:

Objective 1: To promote collaborative activities and regional cooperation between the APEC members.

KPI

Directives carried out through projects implemented by ATCWG, and number of economies participating

Objective 2: **To** improve agricultural production and distribution through increased use of the new tools of science accompanied by institutional innovations.

KPIs

i. New tools of science and institutional innovations introduced by 2015;
ii. Average agricultural production increases from 2015 to 2019 and agricultural trade flows also increases over the same time period among APEC economies.

Objective 3: To strengthen human and institutional resource capacities in agriculture through education and training.

KPIs

i. 10 workshops with at least 500 participants by 2019; a follow up survey shows that 90% of the participants in the workshop use the knowledge gained in their jobs;
ii. 3 major conferences that generate 6 major research papers that are published by APEC member economies.

Objective 4: To improve environmental and natural resource management, infrastructure development aimed at addressing food security and safety.

KPI

Compendium of best practices on environmental and natural resource management by end 2019 increase in member economies investment on food security infrastructure aimed at addressing efficiency.

Objective 5: To strengthen agricultural information systems including their analysis and utilization.

KPI

Developed further the APIP initiated by Japan by 2015.

Objective 6: To improve the capacity of member economies on preparedness for natural disasters including cross border diseases.

KPI

Together with EPWG, HWG and other fora appropriate international organizations, train 50 experts on the use of GIS technology aimed at tracking and mitigating the effects of natural disasters and cross border disease problems.

Objective 7. To strengthen capacity of member economies** in reducing damage and loss in agriculture and fisheries from extreme events.

KPI
Reduction of 10% damage and loss to agriculture and fishery and strengthening capability of these sectors[1]

Activities:

-Capacity building activities such as seminars, workshops and training courses on climate and disaster risk assessment, vulnerability assessment, risk mapping, climate change adaptation and disaster risk reduction strategies and related topics embodied in a multi-year project covering 2016-2020.

-Collaboration on common RDE priorities identified during the APEC Symposium on Planning a Collaborative RDE Program on Climate Change among APEC Economies held in September 2015:

- Improvement of seasonal climate forecasts
- Climate-Smart Agriculture Knowledge Sharing
- Mainstreaming Climate Change Adaptation and Mitigation
- Inventory of relevant research programs:

-Peer-to-peer learning
- Trainings
- Information and experience sharing
- Research, comparative analysis
- Multi-hub learning alliance
- Pilot Models
- Quantifying economic losses

5. Prioritized Implementation Schedule

Objective/ Activities	Start Date	Completion Date	KPIs/Outputs
1. Promote activities and regional cooperation in the			ATCWG organizes at least 3 projects annually.

[1] Member economies periodically suffer from extreme events. The damage and loss to agriculture and fishery comprise an average of 22% of the total economic losses from these periodic natural hazards mainly extreme weather events such as storms, hurricanes, typhoons/ floods and drought (FAO, 2015). Such damage and loss significantly decrease food production thereby threatening food security and maintaining the cycle of poverty in rural areas. Various instruments and strategies have been adopted, being tested and proposed to reduce such damage and loss. Hence, to help achieve food security and promote inclusive growth, member economies must address the reduction of damage and loss to agriculture and fishery due to extreme events.
Reduction of 10% as a KPI is achievable if there is political will. Many of the damage reduction measures are already tested either in small areas or large elsewhere. What is needed is the political will or incentives for farmers and fisherfolks to implement the major measures in an extensive way.

APEC region.			
Workshop on APEC Adaptation with Mitigation Initiative in Agriculture **Lead Economy:** Philippines	Feb. 1, 2013	Ongoing	• create an appropriate framework for cooperation to operationalize the recommendations of the APEC Climate Change Symposium; • identify programs and activities to be supported by the initiative; • identify viable and sustainable partnership arrangements for climate change adaptation financing and networking.
2. Improve agricultural production and distribution through increased use of the new tools of science and institutional innovations.			1) New tools of science and institutional innovations introduced by 2015; 2) APEC average agricultural production increases from 2010 to 2015 and agricultural trade flows among APEC economies also increases over the same time period.
Seminar: Strengthening Public-Private Partnership to Reduce Food Losses in the Supply Chain **Lead Economy:** Chinese Taipei	Mar. 1, 2013	Dec. 30, 2017	• convene annual seminar in each year with different themes of post-harvest losses; • revise the drafted methodology of APEC food losses assessment after receiving feedback from APEC economies; • extend its application to different types of foods; • hold a high-level policy dialogue meeting for an in-depth discussion on the achievements, follow-up policy recommendations and strategies.
3. Strengthen human and institutional resource capacities in agriculture through education and training.			1) 10 workshops with 500 participants by 2015; a follow up survey shows that 90% of the participants in the workshop use the knowledge gained in their jobs; 2) 3 major conferences that generate 6 major research papers which are published by APEC and in local journals.

Enhanced Capacity Building for Food Safety Risk Assessment in Asia-Pacific **Lead Economy:** China	July 1, 2013	Completed	• develop human resources through workshops, training programs and experience sharing; • develop a workplan to strengthen the cooperation with Human Resources Development Working Group (HRDWG); • hold annual meeting.
4. Improve environmental and natural resource management, infrastructure development related to food security and safety.			Support economy to develop compendium of best practices on environmental and natural resource management by end 2015.
Scientific Workshop on Measurement and Mitigation of Greenhouse Gases in Livestock Systems for Green Production and Environment of APEC Members **Lead Economy:** Thailand	Jan. 1, 2014	Ongoing	• improve understanding of the diversity of livestock management systems in APEC member economies, the greenhouse gas emissions and the special characteristics of those systems; • identify opportunities for future collaboration and coordinated capacity building activities in livestock mitigation research across member economies.
5. Strengthen agricultural information systems including their analysis and utilization.			Continue perfecting the APIP developed by Japan by 2015.
Seminar for Sharing and Discussing the Interim Outcome of the PRAI (Principles for Responsible Agricultural Investment) Pilot Project **Lead Economy:** Japan	May 1, 2013	Completed	• provide valuable evidences and policy implications for promoting agricultural investment in a responsible manner in the APEC region; • be fed into the on-going extensive consultation process of the principles for agricultural investment at the Committee on World Food Security (CFS).
6. Improve the capacity of member economies on preparedness for natural disasters and cross border diseases.			Together with EPWG, HWG and other fora and international organizations as appropriate, train 50 experts on the use of GIS technology that can mitigate the effects of natural disasters.
Training Course on the Application of Remote Sensing and GIS Technology in Crop Production	Jan. 1, 2013	Completed	• invite experts and scientists to teach on the topics of remote sensing imageries preparation, the method and model of

Lead Economy: China			applying RS and GIS to obtain crop spatial distribution and acreage, to realize crop forecasting, and to monitor natural disaster; • visit an observation for visiting land remote sensing imageries receiving station.
To strengthen capacity of member economies in reducing damage and loss in agriculture and fisheries from extreme events • Capacity building activities on climate and disaster risk assessment, vulnerability assessment, risk mapping, climate change adaptation and disaster risk reduction strategies, agriculture of the poor in fragile environments and related topics embodied in a multi-year project covering 2016-2020. • Collaboration on common RDE priorities identified during the APEC Symposium on Planning a Collaborative RDE Program on Climate Change among APEC Economies: ▪ Improvement of seasonal climate forecasts ▪ Climate-Smart Agriculture Knowledge Sharing ▪ Mainstreaming Climate Change Adaptation and Mitigation			• Reduction of 10% damage and loss over the next 10 years to agriculture and fishery • Strengthening capability of the sectors

▪ Agriculture of the Poor in Fragile Environments ▪ Inventory of relevant research programs ▪ Peer-to-peer learning – Trainings – Information and experience sharing – Research, comparative analysis – Multi-hub learning alliance – Pilot Models – Quantifying economic losses			
▪ RDE Partnership Projects on : – Adaptation strategies to address uncontrollable emergence and incidence of pests due to extreme temperatures (Lead-Malaysia) -Integrated pest management -Research on optimal physiology of crops and livestock -Semi-controlled crop and livestock infrastructure			

– Adaptation strategies to address extreme rainfall variability from more intense/frequent droughts to more intense/frequent floods The Philippines will take the lead in the ff. strategies: -Changes in cropping calendar -Climate adaptation insurance – Adaptation strategies to address saltwater intrusion due to sea level rise (Lead-Vietnam) -Salinity-tolerant aquaculture – Adaptation strategies with mitigation co-benefits			

-CSA for low-emission agriculture: Zero tillage, organic farming (Lead- Chile) Alternate wet-dry rice paddies New fertilizers Re-use/recycle crop and livestock waste (Lead: China) – Mitigation strategies to lower carbon emission -Peat management using paludicultures (Lead-Indonesia)			