

Food Security and Climate Change Multi-Year Action Plan (MYAP) 2018-2020

1. Purpose

The MYAP is intended to implement the Multi-Year APEC Program on Food Security and Climate Change, fulfilling the Food Security Roadmap and Bogor Goals 2020. Furthermore, the MYAP will promote a more coordinated regional effort at addressing the closely linked challenges of food security, development, and climate change adaptation and mitigation. The MYAP will be executed by the Policy-Partnership on Food Security (PPFS), but is also relevant to other APEC fora such as the Agricultural Technical Cooperation Working Group (ATCWG), the High Level Policy Dialogue on Agricultural Biotechnology (HLDAB), and the Oceans and Fisheries Working Group (OFWG). PPFS will engage with the related APEC fora to ensure that MYAP activities are closely coordinated with their efforts so that there is coherence in implementation of the MYAP.

2. Background

Increasing frequency and intensity of extreme weather events due to climate change are already negatively affecting agricultural production systems and food security. Climate change will continue to have a profound impact in APEC economies, with developing economies facing the largest reductions in food production potential, according to a study by the Asian Development Bank. These environmental challenges could affect the food supply by asserting downward pressure on production and upward pressure on prices, thereby creating problems for food availability, food accessibility and affordability. With agriculture, livestock, and fisheries sources representing a significant portion of global greenhouse gas emissions, efforts to address the food security-climate relationship have also focused, where possible, on mitigating greenhouse gas emissions from food production systems. The MYAP reflects APEC's Multi-year Strategic Framework on Food Security and Climate Change where the three primary pillars are defined as:

- a. Sustainably increase agricultural, fisheries, and aquaculture productivity and incomes (“productivity”);
- b. Adapt and build resilience to climate change (“adaptation”); and
- c. Mitigate or reduce greenhouse gas emissions where possible (“mitigation”).

This MYAP was developed using the discussions, goals, and direction laid out in the APEC Food Security Roadmap Towards 2020, the Piura Declaration on APEC Food Security, and the Strategic Framework for the MYAP.

3. Objectives

The key objectives of the MYAP are to:

Enhance the capacities of APEC economies in developing and disseminating approaches to address the food security-climate change relationship in the short, medium, and long term.

Increase the knowledge of adaptation, mitigation, and productivity among APEC economies. Activities such as targeted capacity building activities focused on sharing and disseminating related priorities, good practices, policy approaches, appropriate technologies, lessons learned, and other information will help achieve the goals identified.

Utilize the current APEC structure to provide means of support for APEC economies to better share experiences and promote cooperation in the development of approaches to addressing food security-climate change relationships, as applicable and appropriate and based on identified capacity gaps.

General Approach

The MYAP is a set of voluntary, non-binding actions determined by each APEC economy. APEC economies have discretion to develop their own actions based on an economy's domestic priority and available budget.

Coordination and Leading Economies: As the chief coordinating and executing body, PPFS will oversee and manage the MYAP. PPFS will identify a sub-group ("core team") of MYAP champions to facilitate coordination, implementation and monitoring of the MYAP. This core team will initially include representatives of the PPFS Chair 2017 (Vietnam) and the next three chairs of PPFS (Papua New Guinea, Chile, and Malaysia), other interested economies and private sector participants. Expert organizations are also encouraged to engage in the MYAP implementation. It is envisioned that, under the auspices of and subject to the approval of the PPFS, the core team will triennially review and make recommendations to the PPFS for updating the MYAP, and that the PPFS welcomes all interested economies and private sector participants to join the core team.

Workstreams: The MYAP aims to address challenges associated with food security and climate change by pursuing four concurrent, inter-related streams of work, as determined in the Strategic Framework for the MYAP and summarized below:

- a. Policies: This workstream focuses on cooperation, communication, and information on food-security and climate change policy.
- b. Best Practices: This workstream focuses on cooperation on best practices in agriculture, livestock, fisheries, and aquaculture production and policymaking.
- c. Technologies and Knowledge: This workstream focuses on technology development, dissemination, knowledge sharing, and access to advanced technologies.

- d. Capacities: This workstream focuses on human and institutional capacity building and outreach for the public and private sector, for policy makers, social associations and agriculture, livestock, fisheries, and aquaculture extension and education.

4. **Key Actions in 2018 – 2020**

Phase 1: 2018 – Stocktaking and Analysis: The first phase of the MYAP will focus on assessment and stocktaking activities that clarify policies, best practices, technologies, and levels of capacity currently existing in the APEC economies. The stocktaking and analysis phase will be aligned within the four workstreams of the MYAP. It is understood and anticipated that some actions (i.e., cross-cutting actions) will address multiple workstreams of the MYAP.

a. Policies Workstream

- i. Economy-level analysis of policies relating to sustainable and climate resilient agriculture, fisheries, and aquaculture.
- ii. Context and situation analysis of policies and regulations that govern three key sectors (staple food/agriculture, livestock, fisheries, aquaculture) and an evaluation of climate conditions, post-harvest loss and waste, and the value chain.
- iii. Share and stocktaking of incentive policies to promote investments in science and technology development, innovations, plant varieties, fisheries, aquaculture and animal breeds adaptive to climate change, which ensure both quality and quantity for food security.
- iv. Research and analysis of greenhouse gas emission reduction in the process of food production and distribution.

b. Best Practices Workstream

- v. Stocktaking exercise of on-going and new practices used in each economy in the agriculture, livestock, fisheries, and aquaculture sectors. Review the application of good practices in adapting to and/or mitigating climate change and post-harvest loss and waste.
- vi. Stocktaking exercise of feasibility studies done of these best practices to ascertain the ability of economies to adopt new methods and techniques for increasing productivity, reducing post-harvest loss and waste, and improving adaptation and mitigation.

c. Technology and Knowledge Workstream

- vii. Inventory and assess existing platforms that track adaptation and mitigation technologies and practices, as well as their uptake and upscaling potential.

- viii. Inventory existing collaborative mechanisms between economies and international organizations, and between public and private sector organizations that focus on technology development and knowledge sharing.
- ix. Inventory food production and processing techniques and technologies throughout the value chain that APEC economies utilize to adapt to climate change and mitigate greenhouse gases and reduce post-harvest loss and waste.
- x. Cooperate to develop an e-bulletin to highlight and disseminate knowledge about applications of climate-change-adaption and mitigation science and technology in agriculture, livestock, fisheries, and aquaculture production.

d. Capacities Workstream

- xi. Conduct a stocktaking exercise that inventories and summarizes training programs and capacity building initiatives in or available to APEC economies for increasing productivity, reducing post-harvest loss and waste, improving adaptation and mitigation, and strengthening climate information services.
- xii. Evaluate and analyze APEC-funded projects from the Projects Database to specifically consider the capacity building and outreach initiatives focused on improving extension and training services and tools.

e. Cross Cutting Actions

- xiii. Collaborate and build upon relevant stock-taking and analysis work done by other regional entities and other APEC working groups.
- xiv. Compare results of stocktaking and analysis exercises across all four workstreams; consolidate information to provide a picture of food security and climate change collaborations in APEC economies.
- xv. Evaluate youth and gender statistics and compare results of stock-taking and analysis exercises across all four workstreams with respect to how women, youth and marginalized farming groups are integrated into climate change and food security activities.

Phase 2: 2019 – 2020 – Training and Integration: This phase will focus on potential training opportunities and integrating new practices for APEC economies to improve their abilities to combat food insecurity and climate change. These activities will be aligned within the four workstreams of the MYAP. It is understood and anticipated that some actions (i.e., cross-cutting actions) will address multiple workstreams of the MYAP.

a. Policies Workstream

- i. Conduct APEC regional level policy dialogues on food security and climate change, engaging the PPFS and other relevant APEC working groups and private sector participants for more insight on regulations.
- ii. Hold trainings and workshops on policy design and formulation, coordination and ways of mainstreaming resilient and sustainable agriculture by addressing productivity, adaptation and mitigation in food security policies.
- iii. Develop and disseminate information on design and policy formulation, interdepartmental and sectoral coordination and implementation regarding climate change affecting agriculture, livestock, fisheries, and aquaculture to promote overall policy coordination for food security.

b. Best Practices Workstream

- i. Conduct collaborative activities such as demonstrations for sharing projects that use best practices in sustainable and resilient agriculture, livestock, fisheries, and aquaculture adapted and mitigation to the climate; utilize existing platforms whenever possible.
- ii. Collect and disseminate case studies to identify best practices and hold dialogues about agriculture, livestock, fisheries, and aquaculture risk management and post-harvest loss and waste in relation to climate change throughout the food value chain and across sectors.
- iii. Define, assess, evaluate and categorize case studies by types of best practice such as governance, climate information, and adaptation methods.
- iv. Create a searchable and easily accessible database of best practices from APEC economies, available on the Asia-Pacific Information Platform on Food Security (APIP), a web-based platform.

c. Technology and Knowledge Workstream

- i. Encourage technological exchanges and knowledge sharing among APEC economies via existing knowledge hubs and digital platforms or web-based information sharing tools, such as APIP, for improving productivity, post-harvest loss and waste, adaptation, and mitigation.
- ii. Distribute information on climate and agriculture, fisheries, and aquaculture technologies using open data, satellite (i.e., remote sensing) information, regional organizations, early warning systems, market information systems, and pilot projects.

- iii. Encourage private sector led innovations/ working with public sector to develop technologies that promote efficiencies; create opportunities for the private sector to share advances made in agriculture, fisheries, and aquaculture and climate technologies through a partnership approach.
- iv. Encourage collaborative research, development and extension program on climate change among APEC member economies.

d. Capacities Workstream

- i. Develop and submit APEC/self/joint funding proposals for APEC capacity building, training, and outreach initiatives to be considered by APEC (Budget and Management Committee) or other financial supporters focusing on:
 - i. Extension best practices approaches pertaining to agriculture, livestock, fisheries, and aquaculture extension best practice approaches.
 - ii. Linkages among food producers, marketers, and consumers.
 - iii. Strengthening supply/value chains.
 - iv. Agriculture, livestock, fisheries, and aquaculture management approaches for improving productivity, post-harvest loss and waste, adaptation and mitigation.
 - v. Land and water use planning approaches.
- ii. Encourage and enable APEC economies to utilize and promote farm management approaches and climate information training already available via existing mechanisms such as: the APEC Climate Center, the APEC Research Center for Typhoon and Society, the Food and Agriculture Organization (FAO), the Association of Southeast Asian Nations (ASEAN), the Centre for Environment, Aquaculture and Fisheries Science (CEFAS), the Consultative Group on International Agricultural Research (CGIAR), the Global Research Alliance on Agricultural Greenhouse Gasses (GRA), and other relevant expert and capacity building networks.
- iii. Develop and disseminate tools for estimating and communicating the cost-benefit of approaches, technologies and best practices for improving productivity, post-harvest loss and waste, adaptation and mitigation that can be upscaled within or across APEC economies for agriculture, livestock, fisheries, and aquaculture.

e. Cross-Cutting Actions

- i. Promote PPFS coordination among institutions across APEC region and other APEC working groups on trainings, data sharing, and scientific developments for food security and climate change.

- ii. Engage the public and private sectors by jointly consulting them on their experiences across the four workstreams and jointly involving them in policy dialogues, capacity building and training activities.
- iii. Promote the integration of gender, youth and marginalized farming groups.

5. Monitoring and Evaluation

The PPFS will oversee monitoring and evaluation (M&E) of all MYAP activities. Accordingly, the PPFS will recommend M&E guidelines and common progress indicators for all projects that fall under the MYAP. MYAP activity-level indicators are voluntary and are monitored/reported at the discretion of the implementing APEC economies.

6. Living Document

Initially the PPFS will utilize the core group, while also seeking to engage other economies, to review, deliberate, and update the MYAP for subsequent years of implementation. The review and updating process can be flexible and should be based upon the progress made on the most recent version of the MYAP. As noted above, under the auspices of the PPFS, the MYAP core team will lead the effort to triennially update the MYAP. Accordingly, since the current MYAP extends through 2020, the review process to update the MYAP should begin by 2020 to finalize the next (i.e., 2021-2023) iteration of the MYAP.