

## **Framework for Multi-Year APEC Program on Food Security and Climate Change**

### **1. Overview**

Climate change will have a profound impact on food security in every APEC economy, with developing economies facing the largest reductions in food production potential, according to the Asian Development Bank (ADB). Over the past decade, the region witnessed a sharp rise in extreme weather events – including droughts, floods and cyclones – that have impacted food production, a trend that experts predict will intensify due to climate change. In 2015, the region experienced the hottest year in recorded history, while a resurgent El Nino cycle has underscored the impact that extreme weather patterns could have on food availability and affordability through decreased production and upward pressure on prices.

Over the long term, the effects of climate change are expected to vary across and within economies, but entail a multitude of potential problems including, but not limited to: changes in temperature variation, growing seasons, and frequency of extreme weather events that negatively impact production; rise in sea-level that decreases arable land or makes land less arable due to salinization; increase strain on natural resources, especially water supplies, which are already severely depleted across the region; increase likelihood of disease outbreaks that affect the food supply; and acidification and temperature variations in the oceans which will impact availability and geographic distribution of fish stocks.

These environmental changes could impact the food supply by asserting downward pressure on production and upward pressure on prices, thereby creating problems for food availability and affordability. For example, ADB and the International Food Policy Research Institute (IFPRI) estimate that rice prices could be 29-37 percent higher, wheat prices 81-102 percent higher, maize prices 58-97 percent higher, and soybean prices 14-49 percent higher in 2050 compared to a no-climate change scenario.

Global discourse on food security and climate change has focused on ways to avoid and manage the negative impacts of climate change on food security and ecosystems. With agriculture representing 13 percent of global greenhouse gas emissions, efforts to address the food security-climate relationship has also focused, where possible, on reducing greenhouse gas emissions from food production. Although international discussions on such approaches refer to various terms such as “climate-smart agriculture” (CSA), “climate resilient”, and “environmentally sustainable” food security, these terms generally align in substance. The FAO definition of CSA, the terminology that APEC has been using for working purposes, covers both terrestrial agriculture and aquatic-based food supplies and encompasses the three pillars of:

- 1) sustainably increasing agricultural productivity and incomes;
- 2) adapting and building resilience to climate change (“adaptation”); and
- 3) mitigating or removing greenhouse gas emissions where possible (“mitigation”).

### **2. APEC Program on Food Security and Climate Change**

Leveraging efforts that have already been carried out within APEC, member economies have decided to launch a new APEC Program on Food Security and Climate Change. This multi-year program seeks to promote a more coordinated regional effort at addressing the closely linked challenges of food security, development and climate change adaptation and mitigation, which is expected to generate benefits for all economies.

Utilizing APEC’s existing infrastructure, the Program is expected to be a joint effort of multiple APEC working groups, including the Policy Partnership on Food Security (PPFS), the Agricultural Technical Cooperation Working Group (ATCWG), and the Oceans and Fisheries Working Group (OFWG) to foster cooperation among policy and technical-level experts on the food security-climate change relationship. APEC food security groups also have the opportunity to partner with and utilize related expertise of the Policy Partnership on Science, Technology, and Innovation (PPSTI) and the APEC Climate Center. The Program also intends to engage and draw upon expertise from the private sector, academia, and other regional and global multilateral organizations.

APEC Leaders and Ministers have emphasized the importance of ongoing regional cooperation in assisting the food, agriculture, and fisheries sectors to adapt to and mitigate the impacts of climate change. In particular, the Program responds directly to the directions set by APEC Ministers at the 2010 Ministerial Meeting on Food Security (Niigata Declaration), to “work together to assist the agriculture sector to adapt to and mitigate, climate change through the development and transfer of new and existing technologies, exchange of information, research collaboration and capacity building.” In addition, the Program aligns strongly with the 2012 Kazan Declaration and the 2014 Beijing Declaration on Food Security which highlighted: “the increasingly urgent need to adapt agricultural systems to climate change and help agricultural communities become more resilient to droughts and floods, especially for smallholders.” The Program also seeks to deliver on commitments made under the APEC High Level Policy Dialogue on Food Security and Blue Economy Plan of Action.

The multi-year program would address identified capacity gaps and climate change related challenges of food security, development, and climate change adaptation and mitigation relevant to the agriculture and aquaculture sectors. Activities are expected to be carried out under the strategic themes outlined below. Activities are expected to be developed based on consultation and consensus among APEC members, reflect the need for differing approaches due to the diverse contexts, priorities, and capacities within each economy, and respect the regulatory and legal frameworks of each economy. Efforts also are intended to be shaped by identified capacity gaps and seek to leverage APEC capacity building efforts to date.

Specifically, the objectives of the program are to:

- Enhance the capacities of APEC economies in developing and disseminating approaches to addressing the food security-climate change relationship.
- Increase knowledge of adaptation, mitigation, and sustainably increasing productivity and incomes. This would be realized through targeted capacity building activities focused on sharing and disseminating related priorities, good practices, policy approaches, appropriate technologies, lessons learned, and other information.
- Utilize current APEC structure to provide means for APEC economies to better share experiences and promotes cooperation in the development of approaches to addressing the food security-climate change relationship, based on identified capacity gaps.

The program’s priorities, strategic themes, and activities are expected to be periodically reviewed and refined to reflect the evolution of challenges and economies’ responses.

### **3. Strategic Themes**

Activities to be carried out fall under the following strategic themes:

- **Cooperation and communication on food-security and climate change policy**, to help interested economies assess policies regarding food security and climate change and conduct ongoing dialogues and information exchange on various policy tools and approaches;
- **Cooperation on best practices**, which could include cooperation and capacity building on application of practices in such areas as specific agriculture and aquaculture sectors, water management, and improving capacity on extreme weather and drought risk assessment, risk management, and impact reduction as appropriate to each economy;
- **Technology development and dissemination and knowledge sharing**, to explore and foster development of improved means for cooperation on technology and knowledge sharing related to addressing the food security-climate change relationship.
- **Human and institutional capacity building and outreach**, to explore ways to enhance how economies engage, inform, and train key actors and stakeholders – including farmers, fish-farmers, and policymakers – on food security and climate change, including approaches to facilitating adoption of related technologies and practices as appropriate to each economy, and approaches to accessing finance.

#### **4. Coordination**

The program is expected to be implemented by a coordination group organized under the auspices of the PPFS but reflect strong cross fora collaboration.

The PPFS intends to regularly organize a Coordination Meeting on the APEC Program on Food Security and Climate Change.

The purpose of the Coordination Meeting is to bring together the relevant APEC working groups, as well as the private sector, experts, and other relevant partners and stakeholders to:

- Review progress on implementation of the Program, as well as consider recommendations for adjusting strategic priorities themes and activities, as appropriate, to reflect evolving challenges facing the region;
- Coordinate implementation of activities under the Program among the various APEC working groups;
- Discuss and coordinate planning of future projects and activities.

The meeting is expected to be led by the chair of the PPFS or the chair's designee, along with the chairs of the ATCWG and OFWG or their respective designees. The meeting is intended to be open to interested delegates from the PPFS, ATCWG, OFWG, PPSTI, as well as other partner working groups, the private sector and other guest experts as appropriate.

The coordination meeting is expected to be typically held on the margins of each PPFS meeting. At the discretion of the chair, and in consultation with APEC member economies, the scheduling of the meeting could be periodically changed as deemed appropriate.

#### **5. Toward an Action Plan**

Over the course of APEC 2017, member economies intend to continue to explore the strategic themes outlined above, exchange views and information, and conduct capacity building. Member economies also intend to consider longer-term cooperative activities to be conducted by APEC, and which would inform development of a detailed 3-year APEC action plan that would be submitted to PPFS in 2017. APEC intends to develop goals and indicators to measure progress.

Activities under this plan inherently entail cross-cutting collaboration amongst various expert groups within APEC. Development of this plan would be a joint product of multiple APEC sub-fora, but coordinated by the PPFS in close cooperation with partners among the relevant APEC working groups, including ATCWG, OFWG, and others as appropriate.

APEC economies, private sector, and other stakeholders are encouraged to support the advancement of this multi-year effort, for example through sponsorship and leadership of activities and workstreams under the Program, leveraging of human and financial resources as appropriate, sharing of expertise, and in-kind support.