

## **Agricultural adaptations to climate change**

The scientific literature suggests that climate change is inevitable, posing serious challenges to socioeconomic development worldwide. The Asia-Pacific region is more vulnerable to climate change risks than other regions because of its greater dependence on natural resources, densely populated yet ecologically fragile areas, and low adaptive capacity. Agriculture is extremely vulnerable to climate change associated with weather extremes such as rising temperatures; increased frequency of droughts, floods, and severe storms; shorter, less predictable rainy seasons; and shifting cropping seasons. Some crops in certain regions of the world will benefit, but the overall impacts of climate change on agriculture are expected to be negative. Forecasts for Asian countries predict a decline in crop yields, increase in livestock losses, damage to fishery and forestry resources, loss of biodiversity, more desertification and land degradation, and greater need for irrigation water. These will contribute to volatility in market prices and undermine food security in many developing countries. Assessment of climate change effects on agriculture may help to adapt agricultural technologies, farming systems, and policy and institutional settings to increase the resilience of agrifood production systems during climate change. Thus, adaptation to climate change will become a key strategy for sustaining socioeconomic growth.

To review the policies and programs on climate change in the Asia-Pacific region, share successful examples of agricultural adaptations to ongoing changes, and formulate strategic action plans and road maps for promoting good practices of agricultural adaptation, the APO organized a workshop on Agricultural Adaptations to Climate Change in collaboration with the Asian Development Bank Institute (ADBI) and Thailand Productivity Institute in Bangkok, 19–23 November 2012. A total of 29 participants from 16 common APO/ADBI member economies and two APO nonmembers, Myanmar and PR China, attended. There were nine resource persons from the International Water Management Institute, Austria, Republic of China, India, Japan, Sri Lanka, Thailand, the USA, and Vietnam. The first day was a public seminar attended by dozens of additional local stakeholders.

In addition to themed presentations by resource persons, country case studies by participants, panel discussions, and group exercises, workshop attendees visited the experimental area, greenhouses, and research laboratories of the Pathumthani Rice Research Center. Four working groups of participants facilitated by resource persons conducted discussions on the four themes of institutional capacity building, innovative financing, intersectoral coordination, and international/regional cooperation. Each group identified issues and challenges in capacity building of stakeholders for adaptation to climate change, as well as strategies to overcome them.