

Climate Change and Adaptation in Agriculture for East Asia and the Pacific Region: Issues & Options

FAO-WB Expert Group Meeting
Rome, May 16-17, 2011

Context

Climate change is likely to be one of the most significant development challenges facing the East Asia & Pacific (EAP) region in the 21st century. The region is particularly vulnerable due to (a) its higher population growth rate related to world's average; (b) its long coastlines and high concentration of economic activity in coastal areas; (c) its scarce land and water resources; (d) the increased dependence of a large proportion of its economically active population on agriculture as a primary source of livelihood; and (e) its regular exposure to the impacts of ENSO (El Niño- La Niña). If left unchecked, climate change could seriously hinder the region's efforts on food security, poverty eradication, sustainable development, and its progress in achieving the MDGs.

Agriculture in the region is extremely vulnerable to Climate Change. The increased variability in rainfall and temperature and the higher incidence of extreme weather events will likely result in a decline in agricultural productivity, an increase in pest and disease outbreaks, and a rapid degradation of land and water resources. Estimates from various climate scenarios predict a decline of average yields for major crops by 2050 across the region¹. Lower yields will lead to higher food prices and a decline in caloric intake, which would aggravate an existing problem of undernourishment for a large proportion of the population.

Effective Adaptation strategies are crucial to reduce the impacts of climate change and enhance food security. Adaptation measures increase the overall flexibility of the agricultural systems to respond to climate shocks and to changing market demands. Possible adaptation solutions include modification of farming practices; diversification and development of new and more resistant crop varieties; development of monitoring and early warning systems; supplementary and improved irrigation systems; improved soil conservation and water resources management; better use of risk transfer mechanisms and food storage systems; and an enabling policy environment. Availability and access to adaptation funds are critical to mainstreaming climate change adaptation in development programs.

The 16th UNFCCC Conference of Parties (2010) in Cancun agreed to establish an Adaptation Framework with the objective of promoting actions on adaptation. Actions under the Framework will cover, i.a., assessing impacts, vulnerability and adaptation;

¹ Nelson, G. C., M. W. Rosegrant, J. Koo, R. Robertson, T. Sulser, T. Zhu, C. Ringler, S. Msangi, A. Palazzo, M. Batka, M. Magalhaes, R. Valmonte-Santos, M. Ewing, and D. Lee, 2009. "Climate Change: Impacts on Agriculture & Costs of Adaptation." IFPRI Food Policy Report, Washington DC: International Food Policy Research Institute.

strengthening institutional capacities and enabling environments; building resilience in socio-economic and ecological systems; enhancing climate change related disaster risk reduction strategies; research, development, demonstrations and transfer of technologies, practices and processes and capacity building for adaptation; strengthening data, information and knowledge systems, and improving climate-related research and systematic observation for climate data collection and use.

For the Least Developed Countries (LDCs), it was decided to establish a process that assists them in their national adaptation planning process. Although many countries in EAP region already have a National Adaptation Programme of Action (NAPAs), this is an opportunity to help improve on those programs with the guidance and support of UNFCCC and international organizations, and through the exchange of experiences and best practices among countries.

Workshop objectives

Against this background, the FAO Investment Center Division and the WB East Asia Sustainable Development's Department, through the collaborative FAO-WB program in EAP, are jointly organizing an Expert group meeting on Climate Change and Agriculture in the region. The meeting aims at (a) better understanding the issues and options at the frontier of agricultural adaptation to Climate Change, (b) identifying the impacts and adaptation strategies and practices; and (c) exploring ways to mainstream Climate change in development programs.

The event will bring together a core group of technical experts and researchers with development practitioners from EAP region and will present a distinct opportunity to share and learn practical examples, technological and research developments, and further the understanding of climate change adaptation practices in agriculture systems.

