Climate information, products and tools to assist decisions and planning in the agricultural sector

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The climate community has been trying to bridge the existing gap between the advances in climate science and the services required to improve adaptation to climate variability and change in different regions and socioeconomic sectors of the world. The third World Climate Conference (WCC-3) organized in 2009 aimed to *"establish an international framework to guide the development of climate services which will link science-based climate predictions and information with climate-risk management and adaptation to climate variability and change throughout the world."* A key outcome of WCC-3 was the creation of WMO's Global Framework for Climate Services. As a parallel and complementary effort the Climate Services Partnership was established as *"a platform for knowledge sharing and collaboration aimed at promoting resilience and advancing climate service capabilities worldwide."* Some of the presentations in the current WCRP LAC conference introduce these efforts and discuss the activities they are developing.

The general concept of "Climate Services" include the generation, translation, dissemination, and actual use of climate knowledge in decision making, policy elaboration and planning. Climate services aim to effectively use the best available climate information, products and tools for improving management of climate related risks and opportunities in agriculture, natural ecosystems, water, health, and other socioeconomic sectors.

Agricultural production is undoubtedly one of the activities with highest dependence on climate. Since the beginning of agriculture farmers have been struggling to cope with unfavorable climate conditions and to take advantage of favorable growing seasons. Consequently, incorporating relevant climate knowledge for improving agricultural production systems should not pose major obstacles: on the one hand there is a clear demand for such knowledge, and on the other hand there is a constant growing capacity of the scientific community to develop it. However, experience shows that effectively embedding climate information, products and tools in the agricultural sector is still a major challenge in both, developing and developed countries.

This presentation will discuss different aspects of that challenge based on the experiences of the International Research Institute for Climate and Society (IRI) of Columbia University and other institutions during the last 15 years. The discussion will include challenges found in the generation of climate knowledge in the scientific community, in the "translation" of scientific advances into knowledge that is relevant for the agricultural sector, and in the institutional arrangements and the policy context in which climate knowledge needs to be embedded.