

Climate Risk Management in the Agricultural Sector: IRI Experience Over the Past Decade

Walter E. Baethgen and Stephen Zebiak

International Research Institute for Climate and Society, The Earth Institute,
Columbia University, Palisades, NY

The founding vision for the IRI was an institution that would act at the interface between climate-related knowledge and the needs of societies affected by climate and in need of effective coping strategies. Early work was based on the premise that providing the best possible climate information and products would trigger the use of such information and products by decision makers (including policy makers) working in different socioeconomic sectors (agriculture, food security, health, water resources) and acting at different levels of societies (public/private organizations acting at local, national or global levels). Actual experience working with a range of stakeholders consistently presented problems that challenged the original premise and informed the approaches that needed to be taken for ensuring that climate information was actually used to greatest effect. A thorough and multidisciplinary analysis of all the dimensions of targeted problems and opportunities has become recognized as an essential step. Two facts illustrate the changes that took place at IRI. First, a rapid change in the composition of the staff: from nearly 100% climate specialists to roughly 50% climate specialists and 50% specialists in agriculture, water resources, health, institutions and policies. Second, the change in name from "International Research Institute for Climate Prediction" to "International Research Institute for Climate and Society".

The evolving research approach and composition of staff allowed IRI to effectively engage with a number of organizations around the world directly involved in planning and decision-making. The broad range of partner organizations includes Ministries of Agriculture, insurance agencies and farmers associations of developing countries, and multilateral institutions, re-insurers and development agencies acting at the regional to global level.

IRI has focused its work around establishing effective practices in climate risk management (CRM). The CRM approach as currently viewed at IRI is based on four pillars: 1. Identify vulnerabilities and potential opportunities due to climate variability/change for a given water, agriculture, or health system; 2. Reduce uncertainties using "climate knowledge" to better understand the climate aspects of these vulnerabilities, challenges and opportunities, such as predictability, expected recurrence and possible long term changes; 3. Identify technologies and practices that optimize results in normal or favorable years and reduce vulnerabilities to climate variability; and 4. Identify interventions, institutional arrangements and best practices that reduce exposure to climate vulnerabilities and enable the opportunistic exploitation of favorable climate conditions (e.g., early warning systems, insurance programs, etc.). The presentation will include examples of the application of this approach in the agricultural sector different regions of the world.

Contact Information: Walter Baethgen, International Research Institute for Climate and Society, The Earth Institute, Columbia University, 61 Route 9W, Palisades, NY 10964, USA; Tel: 845-680-4459; Email: baethgen@iri.columbia.edu