

Overview

This 5-day training course is designed to equip government planners and technical staff involved in agriculture and rural development, in natural resource management, and in disaster and risk management at the local, national and regional levels with proactive approaches in managing risks due to natural calamities. Participants will gain a better understanding of the factors that determine the vulnerability of the different sectors of society. Likewise, the participants will be guided in preparing a strategic plan on risk management that can be applied in their respective contexts.

Background

Agricultural production systems are highly vulnerable to risks associated with weather, climate, and other natural calamities. Effects and impacts of weather and climate on agricultural production can easily be measured in terms of reduction and



variability in productivity of crops and livestock. Latest scientific documents on climate change and climate variability have also confirmed that more intense extreme hydrologic events such as typhoons, floods, and droughts are expected to occur.

However, there is often limited understanding of managing risks due to natural calamities as a process and the factors that determine the vulnerability of different sectors of society. Unnecessary loss of lives, significantly large economic losses, and damages to properties and the natural environment point to the urgent need to develop strategies in disaster and risk management.

Effective and efficient disaster and risk management requires an objective and systematic approach. It also requires the development of vulnerability maps and early warning systems, and

the development and installation of damage assessment and reporting system. Thus, this training course is designed to address these issues and concerns, and thereby reduce the vulnerability (i.e., increase resilience) of farmers and fishers to changing climate.



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Objectives

After completing the training course, the participant is expected to:

- Better understand the concepts, methods and procedures of risk analysis including the related definitions and measures used;
- Appreciate the principal framework for risk analysis which involves identification of types and sources of risks, quantification and measurement of risks, and design and formulation of risk management mechanisms or instruments;
- Apply scientifically sound, objective, and systematic methods and procedures of risk analysis in determining the vulnerable and risk-prone areas and systems, and risk-efficient alternatives;
- Assess and compare the applicability and specificity of various response measures and options to adapt, mitigate, or cope up with the different sources of risks to decrease risk and vulnerability (or increase resilience);
- Formulate and develop a strategic plan for addressing and managing risks due to weather and climate risks in agricultural production systems.

Methodology

The training course will involve lecture-presentations supplemented with exercises and/or group workshops. It will also adopt a modality that will promote a learning platform of exchange where participants will be encouraged to share their practical and local experiences as well as problems encountered in their respective areas.

Towards the end of the course, participants will be required to prepare and present a strategic framework plan on managing risks.

Training Schedule

Day 1 (8 September)

Registration
Opening Program
Risk analysis: Introduction, Concepts and Sources of Risks
Framework for Risks Analysis:
Hazards for Vulnerability
Systematic Approach to Risk Analysis
Managing Risks due to Climate Variability

Day 2 (9 September)

Analysis of Risks due to Climate Variability
Hydrologic Frequency Analysis
Risks due to Extreme Weather Events
Seasonal Climate Forecasts and Crop Production
Delineation of Vulnerable or Risky Areas to Soil Erosion or Landslides
ICRISAT's Crop Adaptation Strategy to Climate Change
Managing Soil Erosion in Vulnerable Areas
Incorporating Natural Hazards in Land Use Planning

Day 3

Economic Impact of Climate Risks
Economic Valuation Approaches
Managing Risks Due to Pest and Diseases
Risks in Crop Production due to Climate Variability
Managing Risks in SEA Rice Production Systems
Rainfall-index based Agri-insurance
Visit to IRRI
Fellowship Night

Day 4

Community-Based Disaster and Risk Management
Developing Local Strategic Plan for Managing Risks
Identification of Issues, Challenges, Constraints and Solutions
Incorporating Hazards in Comprehensive Land Use Plan
Mobilizing and Using Local Resources in Risk Management

Day 5

Elements of Strategic Framework Plan for Managing Risks
Preparation and Presentation of Strategic Plans by Participants
Panel Discussion and Critiquing Proposed Strategic Plans
Evaluation and Closing Program
Farewell Dinner

Speakers

- **Dr. Felino P. Lansigan**
Professor, Institute of Statistics and School of Environmental Science and Management; University of the Philippines Los Baños (UPLB); Member, International Panel on Climate Change Technical Working Group
- **Dr. Nicomedes D. Briones**
Professor, School of Environmental Science and Management, UPLB
- **Dr. Eduardo P. Paningbatan, Jr.**
Professor, Agricultural Systems Cluster, College of Agriculture, UPLB
- **Dr. Avelino D. Raymundo**
Director, Crop Protection Cluster, College of Agriculture, UPLB.
- **Dr. Daylinda B. Cabanilla**
Professor, College of Forestry and Natural Resources, UPLB
- **Mr. Rolando N. Edra**
Former Chief, Inland Aquatic Resources Division, Philippine Council for Aquatic and Marine Research and Development
- **Dr. Reiner Wassmann**
Coordinator, Rice and Climate Change Consortium, International Rice Research Institute (IRRI)
- **Dr. Rosa T. Perez**
Climate Change Expert and Member, International Panel on Climate Change Technical Working Group
- **Fr. Francis B. Lucas**
Chairperson, Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC)
- **Dr. Manuel Nong Rangasa**
Executive Director, Center for Initiatives and Research in Climate Adaptation (CIRCA)
- **Dr. Ashok Kumar**
Scientist, and Expert in Sorghum Breeding, International Crops Research Institute for the Semi Arid Tropics (ICRISAT), Patancheru, India

Participation in this training is on fee basis at US\$600 per participant. This covers the cost of tuition, full board and lodging, forum materials, field visit, and airport transfer. Special discount rates are also offered.

For details, visit:

www.searca.org/web/



International Training Course on
Responding to Changing Climate

**Knowledge-based Strategies
to Managing Risks
in Agricultural Production**



Southeast Asian Regional Center for
Graduate Study and Research in Agriculture