

Training-Workshop on Climate Change Adaptation in Watersheds for Water, Food, and Environmental Security in Southeast Asia

15-18 October 2013

SEARCA, College, Los Baños,
Laguna, Philippines



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Background and Rationale

Food production depends highly on the availability of water, a precious and limited resource. With a global population that is projected to increase to 9 billion in 2050 coupled with economic growth, the demand for irrigation water to meet food production requirements and for household and industrial uses will also increase. Management of watersheds and protection of water resources play a very important role for the attainment of water and food security. Watersheds make up much of the land mass in Southeast Asia and are important in a nation's economic, social, cultural, environmental, and ecological well-being. Most of the fresh water used by people for many different purposes originates from watersheds. In this sense, watersheds underpin the security of human well-being—not just in agriculture and fishery but even in public health, commercial industry, ecology, energy and transport, and recreation and tourism.

Unfortunately, degradation of watersheds in Southeast Asia has been observed over the years, driven by multiple factors including upland agriculture, land conversions, destructive mining, illegal logging, and unfavourable policies and governance. Their direct impacts include erosion, siltation, and loss of biodiversity; leading to wetland degradation, fishery decline, flooding, and water shortages; which in turn result in power shortages, damage to agriculture and so on. While some effort has been exerted to improve watershed management in the region within the last ten years, climate change has further added the stress of increased variability or seasonality of precipitation leading to intense water-related disasters such as droughts, floods, landslides, along

with health risks and food insecurity due to damage to crops. Eventually all these will lead to bottom lines of income and human welfare losses.

Decision-makers are faced with two sides of the problem in managing watersheds to ensure human well-being: the complexity of the drivers of watershed degradation exacerbated by climate change, on one hand; and the complexity of the impacts of watershed degradation on the other. Some of these problems are fundamental and need to be dealt with at a macro level by national policy. At the local level, managing watersheds involves far more than looking at forest cover. It has to factor distinct high and low river flows, as affected by land use, rainfall, slope, topography, soil; sedimentation or the amount of siltation and resulting problems with levels of heavy metals, bacteria, and nitrogen in the water; among others. This requires governance that is sensitive of these complexities and relies on available information and an empirical database as foundations of sound decision-making.

Southeast Asian leaders and champions from all sectors are thus called on to understand the intricate interrelationships among climate change and various extractive practices and measures affecting watersheds, in order to abate grim scenarios of scarce water, food and harsh environments in the future. Science plays an important role in informed decision-making and planning climate change adaptations in watersheds now, for a sustainable Southeast Asian future.





Participants

The workshop is intended for Southeast Asian researchers, policy advisers, program planners and decision-makers in government, civil society, and people's and private organizations who are concerned with policy, program development, and initiatives on climate change adaptation toward food and environmental security.

Objectives

The training-workshop aims to equip participants to:

1. Understand the issues and challenges in watershed management in a changing climate in relation to water, food and environmental security;

2. Analyze gaps toward sustainable watersheds in a changing climate for water, food, and environmental security; and
3. Draw up an agenda for action towards sustainable watersheds for water, food and environmental security in a changing climate within their work contexts, be it in research, teaching, action programs and practices, and policies.

Workshop Agenda

TIME	DAY 1 – 15 Oct (Tue)	DAY 2 – 16 Oct (Wed)	DAY 3 – 17 Oct (Thu)	DAY 4 – 18 Oct (Fri)
8:30-9:00 a.m.	Registration	Review of Day 1 and Overview of Day 2	Review of Day 2 and Overview of Day 3	Management of Learning 3
9:00-9:30	Opening Program <i>SEARCA and APAN</i>	Exercises: Assessment Tools for Climate Change Adaptation Planning in Watersheds <i>Dr. DP Guertin (TBC)</i>	Field trip to nearby watershed with climate change adaptation	Science-based Policy and Decision Support Systems in Watershed Management in a Changing Climate <i>Dr. Mahar Lagmay, UP NIGS (TBC)</i>
9:30-10:30	Orientation/Expectations Check <i>Dr. Rex Victor O. Cruz, UPLB</i>			Workshop: Addressing Gaps and Needs towards CCA in Watersheds for Water, Food, and Environmental Security <i>Dr. RVO Cruz</i>
10:30-10:45	COFFEE/TEA			
10:45-12:15	Key Issues and Challenges in Watershed Management amid Climate Change <i>Dr. David Phillip Guertin, University of Arizona (TBC)</i>	Key Principles for Climate Change Adaptation in Watersheds <i>Dr. RVO Cruz</i>		
12:15-1:45 p.m.	LUNCH			
1:45-3:15	Understanding Changes in Watersheds due to Non-Climate Stressors: Influences of People, Land Use, and Land Cover Change <i>Dr. Rizaldi Boer, CCROM-SEAP, IPB (TBC)</i>	Comprehensive Watershed Management cum Adaptation Planning <i>Dr. RVO Cruz</i>		Presentation and Discussion of Workshop Outputs <i>Dr. RVO Cruz</i>
3:15-3:30	COFFEE/TEA			
3:30-5:00	Understanding Changes in Watersheds due to Climate Change: Impacts of Climate Change on Watersheds: Assessment Tools <i>Dr. DP Guertin (TBC)</i>	Multistakeholder Watershed Management Modes in a Changing Climate <i>Dr. Juan M. Pulhin, UPLB CFNR (TBC)</i>		Synthesis, Evaluation, and Closing <i>Dr. RVO Cruz</i>
5:00-5:30	Management of Learning 1	Management of Learning 2		FREE

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