TROPICAL FORESTS AND CLIMATE CHANGE ADAPTATION (TroFFCA) IN SOUTHEAST ASIA

Tropical forest ecosystems represent a common resource for environment, livelihood and development, which are shared by the great majority of people. These ecosystems, however, are now threatened by climate change including climate variability. Current climate extremes have caused the tropical forests of Southeast Asia to suffer from climate-related disasters such as fires, landslides, floods and draughts that affect the ecosystem functions of the forests. Moreover, they have caused major economic losses and slowed down economic development.

Climate change projections for Southeast Asia resulting from Global Circulation Model experiments suggest that the climate will be warmer and have more precipitation relative to current conditions. The changes will happen at a slower rate than in the rest of the world. Annual and decadal climate variabilities show an increasing trend, however, and are likely to become more frequent in the future. As a result, climate-related disasters may increase in quantity and intensity.

Considering the important role of forests for the majority of the population, there is a need for forest to be integrated in climate change adaptation planning in the region.

WHO WE ARE

The Tropical Forests and Climate Change Adaptation (TroFCCA) project is financed by the European Union, hosted by the Center for International Forestry Research and operates in West Africa, Central America and Southeast Asia. In Southeast Asia the project works in Indonesia and in the Philippines in collaboration with the World Agroforestry Centre the Philippines.

TroFCCA in Indonesia works on the increased risk of forest and land fires and land movements, whereas in the Philippines the focus is on water resources. Stakeholders in the regions chose these sectors because of their livelihood importance and vulnerability to climate change. Forest and land fires in Indonesia are of particular local, national and regional importance.

OUR OBJECTIVES

Working in partnership with stakeholders across local and national levels, TroFCCA Southeast Asia aims at achieving the following.

- Develop national adaptation strategies of the prioritized sectors through a comprehensive vulnerability assessment and science-policy dialogues.
- Build a conceptual framework of adaptation through a comprehensive literature review on existing knowledge.
- Provide inputs for the Second National Communication.
- Offer inputs for relevant national adaptation policy development.
- Enhance adaptive capacity at municipal, national and regional levels to ensure sustainable and equitable development of the prioritized sectors through knowledge sharing and learning.

APPROACH

As part of a global network program, TroFCCA in Southeast Asia shares the common TroFCCA approach across the region. There are, however, specific adjustments to address the diversity of the regional research focuses and sectors chosen by stakeholders. Adaptation strategies are developed through a comprehensive vulnerability assessment and science-policy dialogues across various domains (policy, society, ecosystem, landscape and biophysical parameters).

OUTPUTS

- Methodology framework to assess vulnerability
- Identified adaptation strategies for selected research focuses and sectors
- Policy briefs
- Students' theses from the region
- Specific research results that facilitate the vulnerability assessment and the development of adaptation strategies
- Scientific and policy-related papers for journals, conferences and workshops at national, regional and global levels.

FOREST AND LAND FIRES

Forest and land fires in Indonesia cause significant negative impacts on the environment and socio-economics. Fires are of local, national, regional and global relevance and their extent and intensity are associated with climate conditions. Climate change including climate variability is relevant factor.
TroFCCA in Indonesia will promote adaptation strategies to the recurrences and risks of forest and land fires under the influence of climate change and climate variability, to balance the advancement of forest fires mitigation, which is already on the government's agenda.

LAND MOVEMENTS (LANDSLIDES)

Land movements cause significant negative impacts on socio-economics, and among natural disasters they represent the second most important cause of loss after the Aceh tsunami of 2004. Climate change is highly likely to alter the characteristics of land stability, which have been well-known based on current or the last few years' conditions.
TroFCCA in Indonesia, in partnership with relevant stakeholders, seeks solutions to minimize losses caused by land movements. Specifically, TroFCCA will enhance the adaptive capacity in land management and disaster preparedness through vulnerability assessment and the development of adaptation strategies.

WATER RESOURCES

The Philippines is highly dependent on catchment water for domestic and industrial uses, irrigation, power generation, livestock raising, fisheries and recreation, and is becoming more susceptible to water-related extreme weather disasters such as floods, droughts and typhoons.
TroFCCA in the Philippines will prepare the formulation of adaptation strategies into policy development in the water sector. It is the continuation of the Assessments of Impacts and Adaptations to Climate Change project, which ended in 2006.

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Photos by Heru Santoso and Hety Herawati

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