

What Does Climate Change Mean? Community Understanding and Adaptation in the Philippines

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Community Responses and Understanding of Climate Change

At the community level in the study areas of the Philippines, communities adopt common responses, such as planting trees and proper waste management, as adaptation strategies to the impacts of climate change. However, there is a disconnect between their understanding of climate change and more formal definitions, such as those set by the IPCC. The community primarily identifies intensifying heat, increased rainfall and flooding, and unpredictable seasons as the climate change impacts. Researcher Perry Rockwell, who conducted fieldwork, argues that before we discuss various adaptation strategies with communities, it is important to understand how communities frame ‘climate change’ based on their experiences and practices. He further states that, “when we have a common understanding of climate change across stakeholder groups, including communities, researchers, governments and development partners, we can only then co-create meaningful and viable solutions.”

Mega-Dike Climate Adaptation Project

The construction of a mega-dike in the study areas resulted from a shared understanding and exposed local communities to various socio-economic vulnerabilities. The mega-dike was constructed in response to consecutive flooding events, primarily from a disaster risk reduction perspective rather than general climate change adaptation. The project implemented relocation and required the development of a resettlement action plan (RAP) in accordance with World Bank guidelines, JICA principles, and Philippine policy frameworks. The affected community generally views the mega-dike as a successful adaptation to flooding, with some even perceiving it as a safety net during flood events. Rockwell argues that the Philippine government initiated the construction of the mega-dike as a top-down approach for climate change adaptation, though community members saw it as necessary for physical safety. However, relocation affected communities’ livelihoods, social patterns, and access to services, highlighting issues with market-value-based compensation and a lack of emphasis on long-term considerations of social capital and cultural aspects in the Resettlement Action Plan. Rockwell also emphasizes the importance of sustainability in restoration efforts, noting that once project funding ends, local government units may struggle to continue support due to challenges related to governance capacity and political will.



Between the mega-dike (the boulevard) and the CDO River beyond (not visible in the photo), families continue to reside in houses like the one pictured; CDO, Philippines. Photo taken by Perry Henry Rockwell, 2025.

Community Climate Adaptation Strategies

Rockwell finds that social capital is a key to the communities' adaptation to climate change. Communities rely heavily on family and community support during crises, such as floods. The main limitations identified among the local communities are limited knowledge about climate change adaptation practices and insufficient awareness of human rights and political entitlements. Rockwell therefore emphasizes the importance of continuous community engagement in climate change adaptation projects, underscoring the need for ongoing support through mechanisms such as Community Advisory Committees beyond project completion. Rockwell highlighted that adaptation is an ongoing process rather than a one-time solution and recommended that climate change adaptation projects focus equally on durable solutions and people-centred approaches, rather than city-centred development.



2nd CAC meeting at the Research Institute for Mindanao Culture, CDO, Philippines. Photo taken by Dennilyn Mae Partig, 2026.