

Integrating Climate Change Adaptation into Coastal Resources Management Planning in Albay, Philippines

Noralene M. Uy

Keywords: Climate Change Adaptation; Coastal Resources Management; Sustainable Livelihoods

ABSTRACT

The increasing temperature, changing precipitation patterns, rising sea level and increasing frequency, magnitude and intensity of extreme weather events occurring in the ASEAN in the last two decades show that climate change is affecting the region in worst ways. For a developing country like the Philippines, which studies have shown is experiencing an increasing trend of extreme weather occurrences and the threat of sea level rise, adaptation is considered as the most appropriate response to climate change.

The Philippines' coastal zones are regarded as the most vulnerable to the impacts of climate change because of the country's archipelagic character and geographical location. Integrated coastal management (ICM) has been referred to by the Intergovernmental Panel on Climate Change as the most appropriate approach to deal with the impacts of climate change. Since coastal communities are at the frontline of climate change, human and natural systems in the coastal zone benefit from the integrated approach by which ICM, which is alternatively called coastal resources management (CRM) in the Philippines, is operationalized. With this view, the study was undertaken to determine how climate change adaptation (CCA) can be integrated into the CRM planning process in the municipality of Bacacay in the province of Albay.

The study in six *barangays* (villages) in Bacacay utilizing the Sustainable Livelihoods Approach was able to articulate the local vulnerability of the *barangays* in human and social assets and resilience in natural and physical assets thereby providing an understanding of micro and macro level enabling conditions for adaptation in the municipality. Based on these findings and taking into account the climate and disaster vulnerability of the *barangays*, it is recommended that a climate and disaster-sensitive CRM planning process be undertaken. Focusing on the critical Phase 1 (issue identification and baseline assessment) and Phase 2 (CRM plan preparation) stages of the CRM process, actions for integrating climate and disaster risk considerations were proposed including the level of participation required of relevant stakeholders. Adaptation actions to enhance human and social capital and reduce climate change and disaster impacts suggested for inclusion in the CRM plan of Bacacay are (i) increasing awareness on CCA and disaster risk reduction (DRR); (ii) enhancing appreciation of the environment especially coastal resources; (iii) promoting income diversification through enterprise development; (iv) building the capacity of municipal and *barangay* government officials; (v) promoting and increasing multi-stakeholder participation; and (vi) empowering communities to sustain CRM, CCA and DRR activities at *barangay* level.

This study has identified the fundamental need of enhancing human and social capital as a prerequisite to building resilience in coastal communities. The micro-variations found in the *barangays* reiterate the importance of understanding the local conditions so as to be able to formulate and program appropriate adaptation approaches. 'Soft' approaches to enhance human and social capital make an appropriate strategy for Bacacay. Undertaking a strategy focusing on research and monitoring; information, education and communication; enterprise development; and training and technical assistance will strengthen human and social assets. Also, action plans to address weaknesses and build on strengths of livelihood assets will contribute to a meaningful adaptation strategy toward building climate resilience in Bacacay.