

Climate Change Adaptation in the Philippines

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Climate change poses threats to the environment and human well-being. It is a global issue. With the anticipated impacts that include increased sea level and abnormal weather, many of the low lying places near coastal areas will most likely be inundated with ocean water. The Philippines is one of the countries that are highly vulnerable to climate change for several reasons. Foremost is its archipelagic nature with nearly all of its major population centers are located in coastal areas. It is important to note that most coastal communities are fishing villages and are among the poorest sectors in society. The Philippines also lies along the path of tropical storms originating from the Pacific. About 20 typhoons pass through the country every year.

There are several unique elements about embarking on climate change adaptation measures in the Philippines. For one, in 1991 there was devolution of the stewardship of coastal marine resources from the national to the local government (Republic Act 7160 and 8550). Although this made sense in as much as it is the local stakeholders that are in the best position to ensure sustainability of use and management, nevertheless we argue that this has led to a lack of comprehensive national strategy. In addition, the role that coastal ecosystems, particularly coral reefs, seagrasses and mangroves, play in providing natural protection to coastal communities to buffer against high-energy waves is among the key insights gained through several on-the-ground science-to-policy studies. In time of climate change, the coral reefs and mangroves in addition to providing the food and livelihood also provide valuable shelter from storm surges



and wave action. The adaptation solution is hence seen to be intricately intertwined with environmental protection and is also within the control of fisherfolks. This is ironic in view of the fact that unrestrained illegal and destructive fishing such as use of poisons and blast fishing over the past decades are among the direct factors that have led to the extensive and pervasive destruction of the country's coral reefs. This insight, we contend, necessitates a multi-level change in attitude and greater appreciation of these ecosystems' economic and ecological role. Fisherfolks are the prime group at risk but they also hold the key to adaptation capacity. They also will not be able to solve the problem by themselves because the resource destruction is caused by the interplay of several factors. Factors such as pollution and siltation are beyond the sphere of influence of coastal inhabitants. Given this, an integrated approach is imperative else no end of the pipe solution will ever solve ecosystem degradation.

This study makes use of various remotely sensed products and numerical model simulations to propose a strategy for prioritizing sites for protection. Taken into consideration are presence/absence of reefs and related habitats; entrainment/ connectivity features; variability of environmental exposure; perceived threats and vulnerability. The recommendations include prioritizing coastal habitats that have withstood climate fluctuations through decades; prioritizing series of reef areas to ensure a sustainable of connectivity corridors; and elimination of specific anthropogenic activities that further exacerbates the vulnerability of the coast to climate change impacts.