# ECONOMICS OF ADAPTATION TO CLIMATE CHANGE OF SEA CUCUMBER FISHERS IN THE PHILIPPINES

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ABSTRACT

The Philippines is the second major producer and exporter of sea cucumber in the world. However, climate change has affected this industry and has decreased income for the country's economy, the commercial fishing sector as well as marginal fishermen who rely on it as their source of livelihood. Three types of sea cucumber fishing techniques are commercial fishing, harvesting sea cucumbers as by-catch and by gleaning. This paper focuses on gleaning because the fishermen have no control of the shallow coral reef flats where they catch sea cucumbers. Collection is done by small-scale or artisanal fishers, involving men, women and children. This activity is carried out during low tide in shallow intertidal reef flats. Gleaning is often classified as "informal" work acting as a safety net for the rural landless. The community of sea cucumber fishers in Sorsogon organized themselves and came up with two options, using the marine protected area approach: artificial reef or ranch model. The second is now being implemented with an IRR of 40%, BCR 1.7, NPV of PhP 670,000 and payback in more than a year over the first which has negative NPV and payback in over 50 years.