Climate change effects on the Economics and Management of world fisheries

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Abstract

Climate and marine ecosystem research informs us that marine fish resources would come under increasing stress over the course of the 21st century as global climate change, ocean acidification and de-oxygenation combine with other stresses on the ocean, including heavy fishing pressure and marine pollution, to change the primary productivity of fish populations, shifts in distribution of their biomass and changes in the potential yield of exploited marine species. Given these predicted changes and the fact that (i) marine fish resources are already challenging to manage because of their common property nature; and (ii) they provide the world large market benefits (animal protein, jobs and profits) and non-market benefits (e.g., existence and bequest values), both the economics and management of marine fisheries are bound to be affected as warming increases into the future. The objective of this chapter is to explore the likely effects on both the economics and management of marine fisheries into the future.