

# Trade and Fishery Resources Exploitation: Empirically Analysis on Global Fisheries

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**Abstract:** Recent years, world trade of fishery resources has been sharply increasing. Because capture fisheries are hard to be managed, growth of fishery trade may cause the overexploitation of world fishery resources. For instance, the theoretical model developed by Takarada et al (2009, RIETI DP) implies that fish stocks may be overexploited when they are traded. In our paper, we examine the effect of trade on the exploitation of fish stocks empirically. The empirical framework developed by McWhinnie (2009, J. Env. Econ & Man 57.3) is extended in this paper for examining the relationship between exploitation and fishery trade. The information of fishery trade is derived from FAO database by disaggregated species base, and exploitation information is derived from FAO's "Review of the State of World Marine Fishery Resources". Unfortunately, trade information is gathered and classified by countries, but exploitation information is collected by ocean area. Then, we will match and merge these two datasets by using information of "Sea Around Us" project database (it contains catching countries and ocean's regions information). The empirical results of ordered logit estimations with some control variables, for instance, catching technologies and resource management measures, imply that the fishery stock is likely to be overexploited when they are traded. These results, which are consistent with the theoretical consequence by Takarada et al., suggest that fishery stock should be more effectively managed to prevent overexploitation.

**Keywords:** Fishery Trade, Marine Resource Exploitation, Resource Management

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