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Fisheries in the Philippines and in the World: An Overview

Daniel Pauly
Professor
Fisheries Centre
University of British Columbia
2204 Main Mall
Vancouver, B. C., Canada V6T 1Z4

Fisheries are in decline, or at best stagnating, both locally and globally. The good news is that the trend **can be reversed**, if concerned groups, particularly the local government units (LGUs), will act quickly and in a concerted manner to implement the necessary remedial measures.

Globally, marine catches are stagnating or declining, a trend which could be mistaken for sustainability. In fact, while capture in terms of tonnage may remain the same, there is a “devious” change in the size and the number of fish caught. Fishers are catching smaller and smaller fish, lower and lower down the food web, an indication that global fish stocks are being harvested beyond their sustainable yield.

Industrial-scale fishing has contributed to the decline of fisheries in many parts of the world. Canada, as an example, was characterized by 400 years of sustainable small-scale fishing. This changed upon the introduction of large-scale fishing. After reaching a peak



Fishers are catching increasingly smaller fish.

in the late 1960s, fish catch suffered a steep decline—after less than 50 years—a result of overfishing by trawlers.

Increased human population aggravates the problem. This is evident in the Philippines where population has grown by an average of 5.4% per year from 1900 to 1977

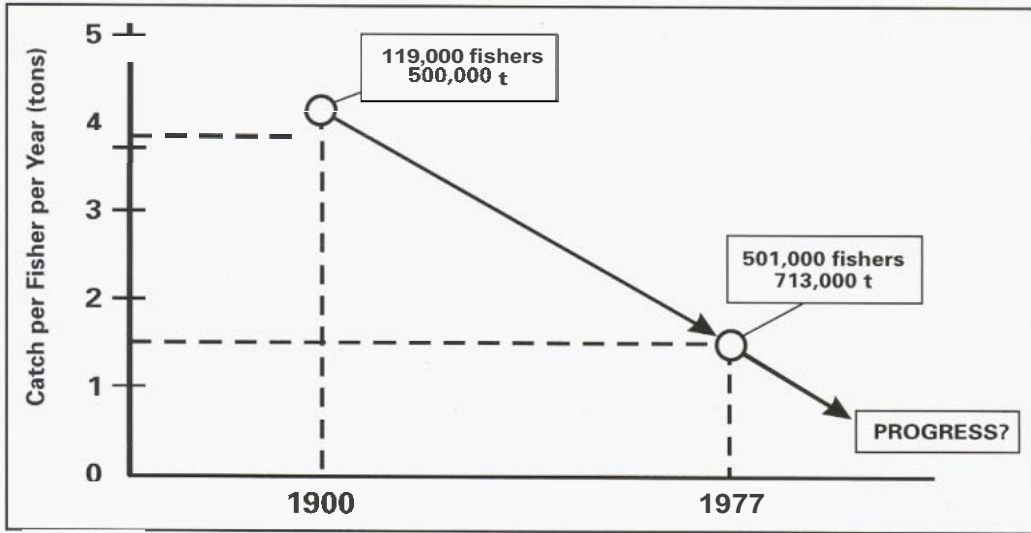


Figure 1. Progress of Philippine municipal fishing (*Censo de las Islas Filipinas 1905*).

local fishers. Except for a slight recovery in the 1980s, fisheries continued to fall. In 1990, it had to be shut down altogether putting 40,000 people out of work. Overall, subsidies are dangerous because they lower the cost of fishing thereby encouraging more people to fish (Figure 3).

compared to fishery production which grew by 1.8% per year. In 1900, each of the country's 119,000 fishers enjoyed a catch of more than 4 tons per year. In 1977, 501,000 fishers caught 713,000 tons of fish or roughly 1.4 tons per fisher per year (Figure 1). Until 1995, both commercial and municipal fish catches increased steadily. In 1995, total fish catch continued to increase but municipal fish catch declined. This meant that municipal fishers were catching less and commercial fishers were catching more. By 1996, even the commercial catch started to decrease.

An economic analysis of costs (fishing effort) and revenues (volume and value of catch) of Philippine fishery indicates that it is economically overexploited (Figure 2). The cost and revenue curves provide benchmarks for management, notably maximum sustainable yield (MSY), the highest catch that can be sustained through time and maximum economic yield (MEY), the level of catch that maximizes economic profit. On the other hand, the equilibrium point—that point where cost and revenues are equal and profits,

zero—shows that there are too many fishers exploiting a decreasing fish stock.

Subsidies to minimize the effect of commercial fishing to municipal fisheries do not seem to work based on the experience in other countries. In Canada, the government reacted to 20 years of industrial-scale fishing by foreign trawlers and the sharp decrease in fish catch in the late 1960s by taking control of the fisheries, regulating fishing by foreign operations and subsidizing

One way to stop the downhill trend of fisheries is to designate marine protected areas (MPAs) in each municipality. An MPA is an area or zone within the marine or coastal environment where resource extraction and/or human access are strictly regulated or entirely prohibited. It is an effective way to protect breeding and juvenile fish, guard against overfishing and ensure a sustainable supply of fish stock. There is conclusive evidence that areas where no MPAs are built will

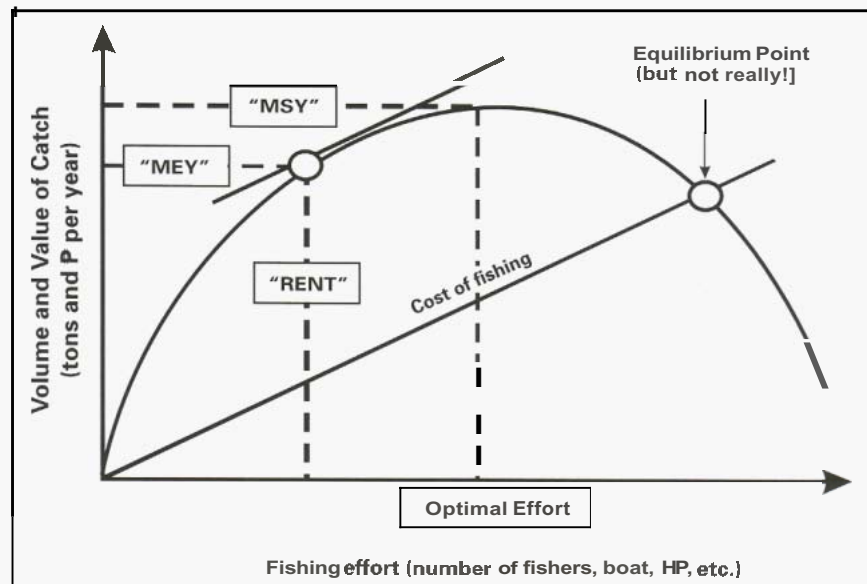


Figure 2. Economic analysis of costs and revenues.

suffer continuous decline of fisheries while those areas with MPAs experience an increase of fish catches (Figures 4 and 5).

Under the Philippine Fisheries Code, LGUs are mandated to designate "at least 15%, where applicable, of the total coastal area in each municipality" as MPAs. Thus, the Philippines has become a world leader for MPAs. Knowing what is correct helps. Indeed, Philippine mayors can play a crucial role in coastal environment conservation, both nationally and as an example to the world.

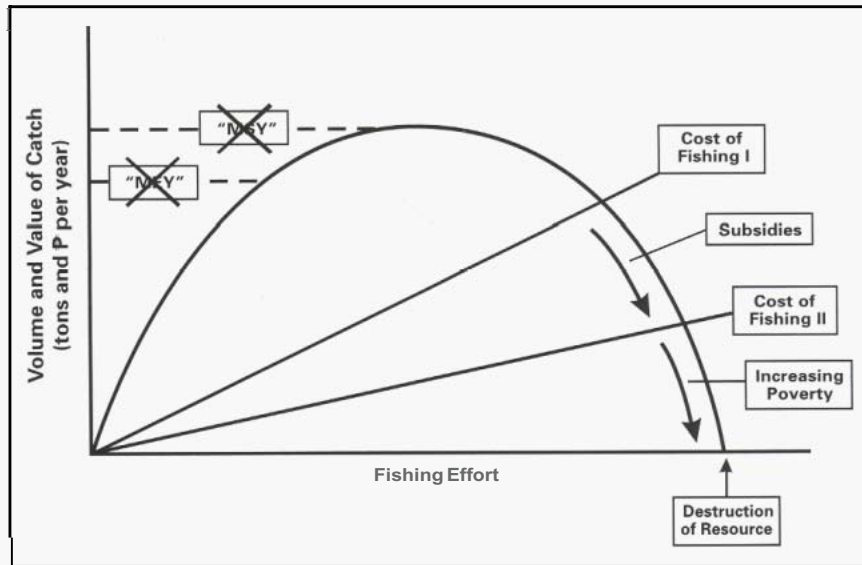


Figure 3. Effect of subsidies on cost of fishing.

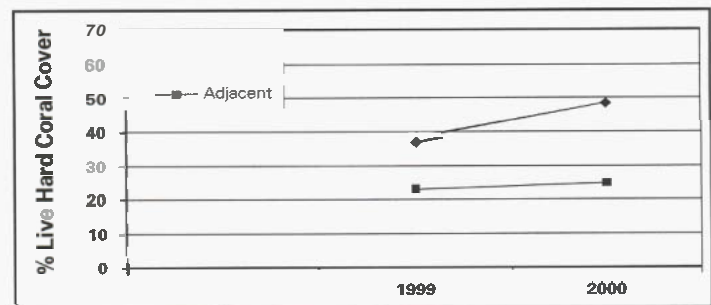
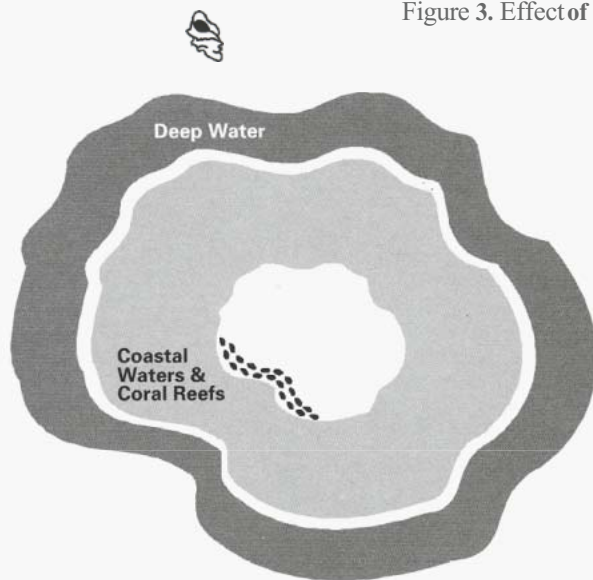
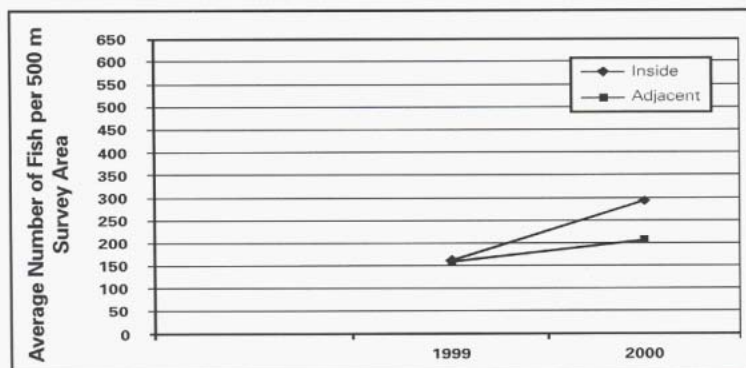


Figure 4. Live hard coral cover inside and adjacent to Gilutongan Marine Sanctuary, Cordova, Cebu.



Note: Surveyed target fish species include the following: goatfish, snappers, parrotfish, angelfish, sweetlips, surgeonfish, wrasses, emperors, moorish idols, spinecheeks and groupers.

Figure 5. Fish abundance (target species) inside and adjacent to Gilutongan Marine Sanctuary, Cordova, Cebu.

