












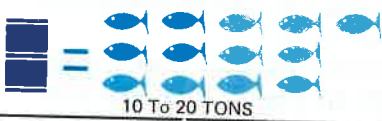




	LARGE SCALE COMPANY-OWNED 	SMALL SCALE ARTISANAL 
Number of fishermen employed	 AROUND 450,000	 OVER 8,000,000
Marine fish caught for human consumption	 AROUND 24 MILLION TONS ANNUALLY	 AROUND 20 MILLION TONS ANNUALLY
Capital cost of each job on fishing vessels	 \$ 10,000 To \$ 100,000	 \$ \$ 100 To \$ 1,000
Marine fish caught for industrial reduction to meal and oil, etc.	 AROUND 19 MILLION TONS ANNUALLY	 ALMOST NONE
Fuel oil consumption	 10 To 14 MILLION TONS ANNUALLY	 1 To 2 MILLION TONS ANNUALLY
Fish caught per ton of fuel consumed	 2 To 5 TONS	 10 To 20 TONS
Fishermen employed for each \$ 1 million invested in fishing vessels	 10 To 100	 1,000 To 10,000

# CONFLICT WITHIN THE FISHING INDUSTRY

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THERE are two distinct sectors within the marine fisheries of the world. One is composed of mainly company-owned large-investment fishing units, and the other of chiefly privately owned or privately-managed small-scale units. The common terms for these two important sectors are "deep-sea" and "inshore," or "commercial" and "artisanal." These names are somewhat misleading as some large-scale units fish in inshore waters and some small-scale units fish in deep seas. To class a fisherman as an artisan does not mean to imply that he is not trying to

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make a commercial success of his venture.

In the past, conflicts between the two sectors were minor and isolated. This was because the world's oceans were then relatively underfished and large vessels could fish close to the shores of foreign states. The enormous increase in the size and power of fishing fleets in the last three decades, and the extension of exclusive fishery zones to 200 mi from shore have together changed the whole situation. Now the deep-sea and inshore fleets are finding themselves increasingly in conflict with each other, over the limited fishing grounds within their country's EEZ.

Both the large-scale and small-scale sectors have grown in size—the one owing to massive investments by large vertically integrated companies now moving into the fishing industry, and the other owing to the natural population increase in coastal villages where there is little alternative to fishing for a livelihood. Numerous conflicts have arisen in fisheries thousands of miles apart and it appears that they are but a foretaste of what is yet to come unless governments take positive action to protect inshore fishing grounds.

In north Yemen's fishery in the Red Sea, traditional gillnet and drift-net fishermen were suffering from the encroachment of company-owned shrimp trawlers on their inshore grounds. The trawlers were taking large quantities of fish with the shrimp and much of the fish was simply destroyed and dumped back into the sea. The trawlers also damaged gillnets encountered when fishing. The inshore fishermen eventually rebelled and marched en masse to the Presidential offices.

The Government quickly responded and withdrew permission for the trawler fleet to operate.



In East Java, Indonesia, thousands of small-scale fishermen operate in the sheltered waters of the Malacca and Bali straits. Fleets of commercial trawlers and purse seiners began to invade the area, fishing chiefly for the Bali strait sardine. The artisanal fishermen staged several demonstrations to protest against the influx of big vessels from elsewhere. Some of the demonstrations developed into riots. The Governor of East Java pressed their case with the central Government and the President later decreed that small-scale fishermen will be the priority group in fisheries development programs.<sup>†</sup>

A recent paper on Thai fisheries indicates the gravity of the same problem in Thailand's coastal fishery where some 6,000 small boats have had to be withdrawn from fishing due to pressure on coastal grounds by large trawlers no longer able to fish within the EEZ's of neighboring states. The writer states that "The government response to these problems and conflicts has been similar to that of other southeast Asian countries—the reservation of part of the coastal zone for small-scale fishermen by declaring illegal the operation of trawlers within a certain distance from the shoreline. Not only was this zone arbitrarily demarcated without regard to the extent of resources necessary to support a growing, fishing dependent population with no means to extend its fishing range, but also the policy has proved impossible to enforce. Trawlers, operating in broad daylight within a few hundred meters from shore are seen frequently throughout coastal Thailand."<sup>\*</sup> This government tilt in favor of large-scale operations was matched by a bias in budget allocations. The small-scale fishermen received little direct support from development programs. Those two

<sup>†</sup>Indonesia has now begun a ban on all trawling.

<sup>\*</sup>See Panayotou, T. 1980. Cited on p. 25.

statements pretty well sum up the general picture of small-scale vis-a-vis large-scale fisheries in most countries of the Indo-Pacific.

Similar sentiments have been expressed by fishery writers and researchers in India. Yet, as the accompanying figure shows, small-scale activities contribute nearly 50% of world fisheries production while contributing much more to employment and using far less energy than large-scale fisheries.

The increased pressures on coastal fishing communities are aggravating serious socioeconomic problems to the point where they may soon affect the politics and stability of the countries concerned. Recent FAO studies estimate that there are around 10 million small-scale fishermen in the world. Each seagoing fisherman provides work for 2 or 3 shore-based workers. Hence, there are about 25 million small-scale fisheries workers supporting families which total over 100 million persons.

#### Alternatives

In the archipelago countries of Indonesia and the Philippines alone, there are over 2 million small-scale fishermen supporting families of over 10 million persons. If these people lose their sole means of livelihood, what can they do? The cities, already far too crowded, cannot absorb them. Agricultural work is hardly possible on that scale without massive land distribution programs. Rural industry has largely been crushed by the weight of large-scale industry which can afford to flood rural markets with its products.

It is not impossible, however, to increase employment opportunities in the fishing village. Ultimately, if rural communities are to survive, there must be a revival of village crafts, cottage industries and artisanal trades. But the basis of the economy of a fishing village will always be fish. Remove that resource and it will scarcely be possible to promote secondary trades. Conserve and cultivate the resource however, and there will be a substantial primary industry to support all other useful trades.



Large-scale operators can sell out of one sector of operations and reinvest in another with a minimum of personal sacrifice. For the small-scale fishermen there is no such option at present. It would appear therefore, a wise and humanitarian policy to give the artisanal fishing communities exclusive control over the fishing grounds around their villages. Total fish production would not be diminished. The income from fish would support a huge segment of the country's population instead of falling into the pockets of a few investors. The present unfair competition on inshore grounds is cited by some authorities as the major reason why some small-scale fishermen are reverting to the use of dynamite and other destructive methods to maintain their fish catch.

#### Dangers

The dangers of failing to act decisively to protect inshore fishing grounds are extremely grave. The consequences might be:

- Destruction of coastal fish stocks due to uncontrolled fishing effort
- Greatly increased migration from rural areas to cities with consequent:
  - Disintegration of rural society in the coastal areas
  - Possible political instability as small-scale fishermen are driven into the hands of radical groups advocating violent action to remedy the situation.

Thus, the problem of conflict within the fishing industry is not just a matter of resource conservation, economics or legislation. It becomes a political problem, dealing with the ultimate survival of fishing communities and the many millions of people they represent. Legislation is needed which will reserve inshore fishing grounds for the exclusive use of small-scale fishermen and prohibit or control potentially destructive methods of fishing. But much more than the legislation, the wholehearted support and resolution of governments is needed to ensure the full and effective enforcement which has been lacking to date.●