



Hidden resources from the Sea — a challenge for the Eighties

by Bob Stanley

Every fisherman has a story about "the one that got away". A less familiar tale, though, is about the millions of fish that are "thrown away" — when they could be feeding the people of the developing nations.

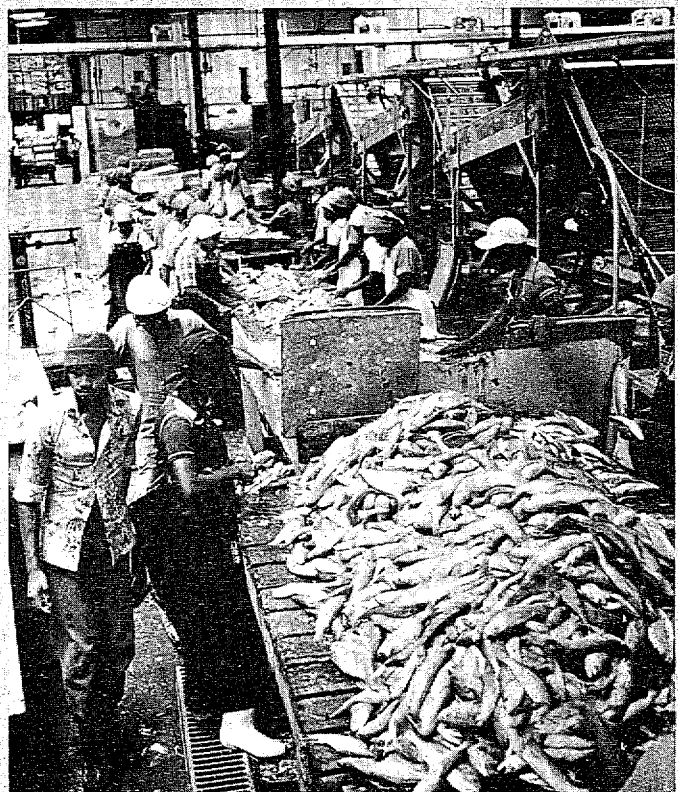
The Food and Agriculture Organization's (FAO) Fourth World Food Survey, published in 1978, reports that "dietary energy per capita" fell during the first half of the '70s. There had been, said the report, "no real progress" toward improving the world food situation, and the number of undernourished people in the developing countries had risen by 1978 to an estimated 450 million.

Given such facts it seems barely credible that as much as 20 million tonnes of edible fish was dumped into the coastal waters of some of the world's poorest countries during that same year — and that the dumping continues. Incredible perhaps, but true nonetheless. How it happens, why, and what can be done about it, make an instructive tale.

First it is necessary to know a little about shrimp trawlers. The classic shrimp trawler is a small, powerful craft. It usually has a crew of only four, it has refrigerated holds with a capacity of up to 30 tonnes. It is designed exclusively to catch shrimp — the large tropical shrimp that expensive restaurants call prawns. Properly run it is a very efficient and very profitable vessel. Most trawler fleets are owned by large American and Japanese companies.

The large shrimp the trawlermen prize are to be found in the warm shallow tropical waters off the coasts of much of Latin America, Africa, and Asia. Nocturnal bottom feeders, they are scooped up from the mud by specially designed trawl nets. Unfortunately the net also scoops up fish by the tonne — it has been estimated that the average catch contains between 10 and 30 percent shrimp, the rest is fish. The shrimp, destined for the export market, will fetch ten times the price of fish. So the unwanted fish — now dead or stunned — are shovelled over the side to become food for sharks and seabirds.

The problem is not just economic, however. There may be as many as 100 different species of fish in that net, some of them virtually unknown to consumers. They vary in size, in chemical content (white or oily



Sorting the by-catch fish at the pilot plant in Georgetown: the plant provides work for 100 people.

flesh), a very few may even be poisonous. And the quantity caught will vary, depending on the location, time of day, and the seasonal outflows of rivers that affect the shrimping grounds.

Thus, it is not surprising that estimates of the quantities involved vary widely. The U.S. National Academy of Sciences, for instance, says the amount is between five and 21 million tonnes of marketable fish. The reason for the wide variation is that word "marketable". In the developed nations only a few select species are acceptable to consumers. In tropical coun-

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