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Fisheries of Kenya, 1973

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NATIONAL OCEANIC AND
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National Marine
Fisheries Service

FISHERIES OF KENYA, 1973

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ABSTRACT

Kenya is an artisanal fishing nation where freshwater catches supply about three-quarters of the nation's total fish. Kenya's lakes and rivers are probably being fished to their maximum capacity. Marine resources are underutilized, and the development of this fishery could provide a tremendous boost to the coastal economy. Within the last 2 years a tuna freezing and transshipping plant has begun operations, and a small commercial shrimp fishery is underway.

GEOGRAPHIC BACKGROUND

Kenya is on the East African coastline and is bound on the north by Ethiopia and Sudan, on the south by Tanzania, on the east by Uganda, and on the west by Somalia and the Indian Ocean. Kenya's coastline is about 300 miles long and its Continental Shelf is narrow, averaging about 3 miles in width. The bottom is fouled in many places by coral outcrops, making bottom trawling difficult. An exception to this pattern is the Kenya Bank, which extends north from Malindi to Lamu and seawards about 30 miles. The strong currents and heavy surf that are common along the entire coastline make fishing extremely difficult for smaller fishing craft.

CATCH

Kenya's fishermen produced 29,906 metric tons of fish valued at about US\$4.3 million in 1972. Nearly 74 percent of this catch came from the nation's inland fisheries--22,086 tons versus 7,820 tons from the marine fisheries. Table 1 provides statistics on Kenya's catch for the period 1970-72.

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Table 1.--Kenya's fisheries catch, by quantity and value, 1970-72

Fishery	1970		1971		1972	
	Quantity	Value	Quantity	Value	Quantity	Value
	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>
Inland:						
Fish.....	<u>20,851</u>	<u>2,900</u>	<u>21,129</u>	<u>2,700</u>	<u>22,086</u>	<u>2,800</u>
Total....	20,851	2,900	21,129	2,700	22,086	2,800
Marine:						
Fish.....	7,617	1,300	6,562	1,500	7,411*	1,300
Lobster....	83	64	145	121	80	88
Shrimp.....	69	32	124	75	83	66
Crab.....	11	2	15	4	12	3
Other.....	<u>243</u>	<u>31</u>	<u>300</u>	<u>51</u>	<u>234</u>	<u>42</u>
Total....	8,023	1,429	7,146	1,751	7,820	1,499
Grand total..	28,874	4,329	28,275	4,451	29,906	4,299

*Foreign flag vessels also landed 7,440 tons of tuna and allied species.

INLAND FISHERIES

Kenya's inland fisheries are centered primarily around Lake Victoria, which provides 75 percent of the country's inland catch. Lakes Rudolf, Naivasha, and Baringo provide the rest of the catch. The introduction of outboard motors for canoes in Lake Victoria has enabled Kenya's fishermen to increase their catch in recent years. The introduction of bottom longlines and gill nets in 1972 resulted in a 75-percent increase in production in Lake Rudolf. Lake Naivasha suffered a 50-percent decrease in production in 1972, which the Kenya Fishery Service attributed to overfishing. Production in Lake Baringo dropped 80 percent in 1972 because of the closing of the local Fishermen's Cooperative Society which normally fished these waters.

Kenya's fishermen normally sell their fish by the length of the fish rather than by the weight of each fish. This practice reduces their income; the Government hopes that the Fishermen's Cooperative Societies in Kenya will eventually switch to the weight system. Fresh fish along Kenya's coast generally retails at \$0.40/lb, regardless of the species.

MARINE FISHERIES

Artisanal:

Kenya's 3,500 marine fishermen, using 1,600 canoes, reportedly landed 7,820 tons of fish and shellfish in 1972. This catch was made with gillnets, hand lines, longlines, push nets, skin diving equipment, and trammel nets.

Industrial:

Japanese tuna longliners operating in the Indian Ocean, in conjunction with Taiwanese and South Korean fishermen, began using Mombasa as a tuna transshipment port in 1969 when the Taiyo Gyogyo of Japan sent a 1,500-GRT reefer to that port. In March 1971 Taiyo and Ataka and Co. established a joint venture with Maritime Co. of East Africa Ltd. and the Industrial and Commercial Development Cooperation of the Government of Kenya for the construction of a cold storage facility in Mombasa. The new firm, called Kenya Fishing Industries Ltd., was funded with \$720,000 and by June of that year work had been completed on the plant. The facility now has a storage capacity of 1,800 tons of fish at -31°C . The complex includes handling and weighing rooms, ships stores, a warehouse, a 360-ft pier, and a 125-ft fixed conveyor belt system that can move 30 tons of fish per hour from the dock to the weighing room. There is also a bunkering facility and a ship repair workshop.



Figure 1.-- Frozen yellowfin tuna being transshipped from a cold storage plant to European processors.

Twenty South Korean and about 15 Taiwanese tuna longliners fish for the plant at Mombasa. Generally these vessels fish from 50 to 200 miles offshore. In 1972 these vessels landed 7,441 tons of tuna and allied species, but this amount decreased to 6,943 tons in 1973. Table 2 provides a breakdown of the tuna catch by these foreign flag vessels during 1972-73.

Table 2.--Catch by foreign tuna longliners, 1972-73

Species	1972	1973
	-----Metric tons-----	
Tuna:		
Yellowfin....	3,561.4	2,568.8
Albacore.....	1,038.0	2,171.6
Big-eye.....	1,484.6	1,060.3
Bluefin.....	3.3	5.0
Skipjack.....	11.7	-
Total....	<u>6,099.0</u>	<u>5,805.7</u>
Allied species:		
Billfish.....	505.2	449.7
Shark.....	222.5	265.8
Swordfish....	175.0	166.4
Other.....	438.9	255.0
Total....	<u>1,341.6</u>	<u>1,136.9</u>
Grand total....	7,440.6	6,942.6

In addition to this tuna operation the Japanese have also begun a shrimping operation in Kenya. Two Japanese vessels apparently were sent to Kenya during 1973, and these vessels reportedly landed about 140 tons of headless shrimp.



Figure 2.-- Japanese shrimp trawlers in Mombasa. These two vessels just completed their first year of operation in Kenyan waters.

In addition to these two operations the African Marine Engineering Company has a 1,800-ton railway for hauling vessels for repair. By the end of 1974 the company plans to complete the construction of a new 20,000-ton drydock. This operation is also based in Mombasa.

Sportfishing:

Kenya has long been a center for sportfishing, and there are now seven sportfishing clubs along the coast. The rapid expansion of the beach resort hotels assures a steady growth for this fishery in the years ahead. Table 3 shows the sportfish landed catch in 1972.

Table 3.--Sportsfish catch in Kenya's waters, 1972

Species	Quantity	
	<u>Kilograms</u>	<u>Number</u>
Tuna and bonito.....	24,467	5,910
Sailfish.....	22,909	1,212
Marlin.....	21,233	202
Kingfish and wahoo.....	7,656	885
Shark.....	3,224	60
Dolphin.....	2,991	800
Barracuda.....	1,072	221
Black & rainbow runner..	996	160
Other.....	<u>21,351</u>	<u>3,496</u>
Total.....	105,899	12,946

FISHERIES TRADE

In the past Kenya has been primarily an importing nation of fish products. In 1972 Kenya imported 1,356 tons of fishery products worth \$750,000. By contrast Kenya exported 1,169 tons of products worth \$849,000. During the past 3 years Kenyan imports have decreased, but exports have fluctuated. A large part of Kenya's fish products are sent to neighboring Uganda and Tanzania. Kenya also tends to import large amounts of fish from Uganda and Tanzania (presumably freshwater species) as well as other types of fish products (presumably canned) from other countries. Tables 4 and 5 provide additional statistics on Kenya's exports and imports of fishery products for the period 1970-72.

Table 4.--Kenya's fishery imports, by country, 1970-72

Year	Uganda		Tanzania		Other countries		Total imports	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>
1972	575	376	376	272	329	102	1,356	750
1971	542	344	920	557	2,480	724	3,942	1,625
1970	434	249	2,651	1,414	2,279	911	5,364	2,574

Table 5.--Kenya's fishery exports, by country, 1970-72

Year	Uganda		Tanzania		Other countries		Total imports	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>	<u>Metric t</u>	<u>US\$1,000</u>
1972	521	314	21	14	627	521	1,169	849
1971	1,471	849	62	31	1,408	602	2,941	1,482
1970	659	323	83	60	627	336	1,369	719

DIVISION OF FISHERIES

The Kenya Division of Fisheries is headquartered in Nairobi, the capital of Kenya. The Division has 400 employees including a staff of 40 biologists. Almost 75 percent of the Division's staff is assigned to the freshwater fishery program while the remainder is assigned to a coastal laboratory at Mombasa and at six substations along the coast.

The Mombasa laboratory has responsibility for carrying out four major programs: biological research, statistics, fish processing and handling, and exploratory research. They have a 72-ft research vessel, the R/V Shakwe (a Swahili word meaning Seagull), which is equipped for stern trawling and longlining to assist in their research efforts.

To date the marine section has located shrimp stocks in 200 fathoms of water off the northern coast of Kenya and has observed pelagic schools of sardines along the coast.

In order to harvest relatively abundant stocks of snappers, groupers, and other reef fish the service has a small revolving loan fund which is made available for multipurpose 25-foot wooden fishing vessels. These vessels are equipped with diesel engines and are actually built by the fisheries service. The vessels generally sell for \$3,000.

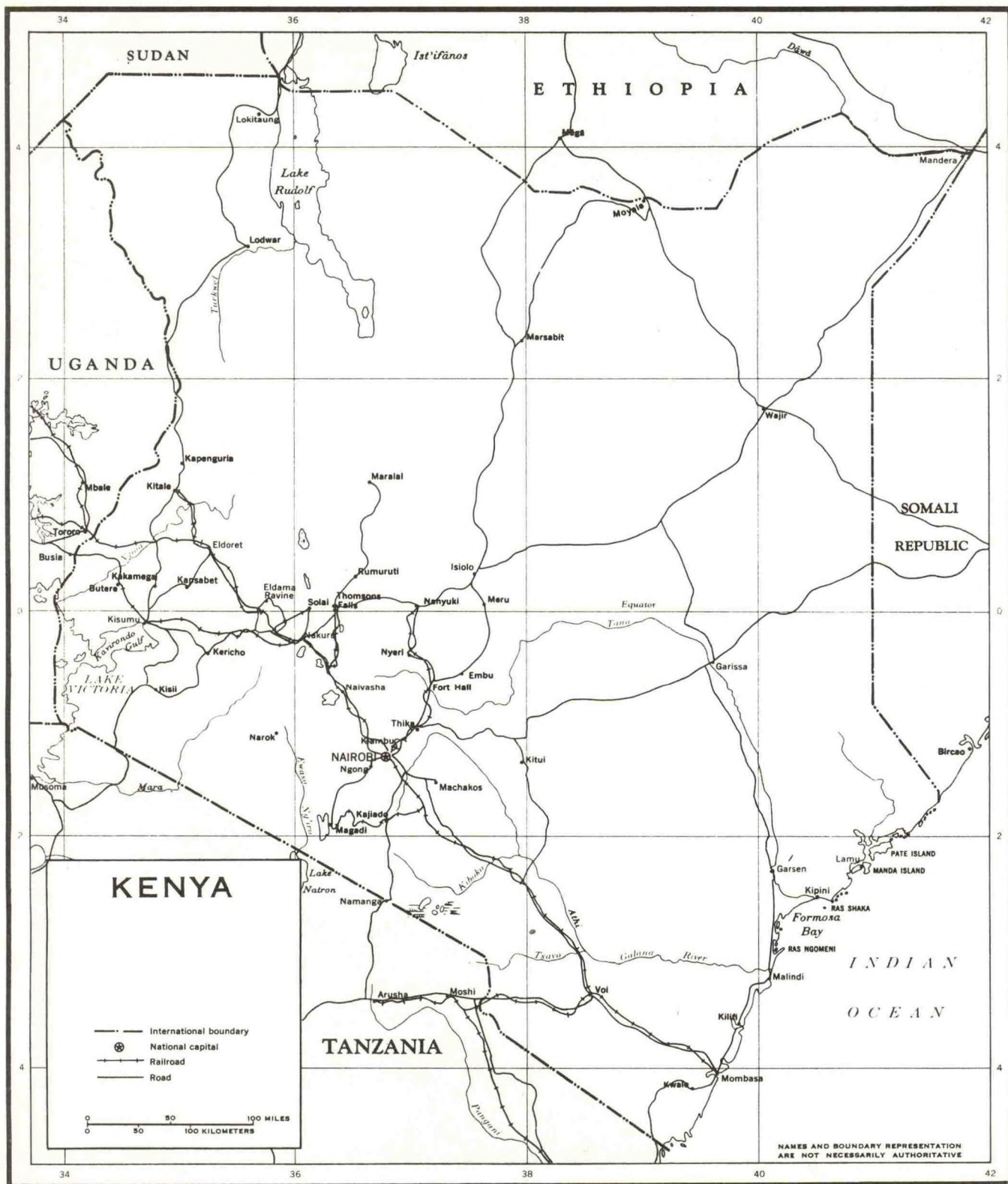
With the freshwater fishery believed to be near its maximum production capacity and with the marine fisheries at a subsistence level, the greatest potential for growth lies with the marine fisheries of Kenya. This area is receiving increasing emphasis within the Division of Fisheries.

EAST AFRICAN MARINE FISHERIES RESEARCH ORGANIZATION

The East African Marine Fisheries Research Organization (EAMFRO) is composed and supported by Kenya, Tanzania, and Uganda. EAMFRO is responsible for conducting regional marine research, and it is headquartered in Zanzibar, an island located off Tanzania. A substation is temporarily being staffed in Mombasa pending the construction of a permanent laboratory in that port. Another substation is expected to be built in Tanzania.

EAMFRO employs what is reputedly the oldest research vessel in the world, the R/V Manihine, built in 1906. Designs, however, are being drawn for a new research vessel which will replace the R/V Manihine.

EAMFRO is active in studying demersal fish, sardines and mackerel, crustaceans, tuna, and oil pollution. There is also a sister organization working on freshwater fishery resources for the three-nation community.



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