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Foreign Fisheries Leaflet No. 74-3

Fisheries of The Gambia, 1973

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Office of International Fisheries
WASHINGTON, D.C.
June 1974

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Norman L. Pease

ABSTRACT

The Gambia, a small country, newly independent, is diligently trying to develop the use of its fishery resources. The Division of Fisheries, even though lightly staffed, is the office charged with the responsibility of expanding the country's fishery productivity. Their efforts are paying off, as the production has quadrupled during the last 5 years. This increase is primarily due to larger gear and equipment in the artisanal sector and recent efforts to develop the industrial fisheries. It is possible that nearly all the fish consumed in The Gambia will soon be produced locally, and certain abundant species permit the possible expansion of fishery exports.

INTRODUCTION

The Republic of The Gambia is located on the bulge of West Africa and comprises a narrow strip of land, 12 to 30 miles wide, bordering the banks of the Gambia River. It claims a 50-mile territorial sea and extends inland 200 miles from the Atlantic Ocean. Except for the sea-coast, it is surrounded by Senegal. The total area is slightly more than 4,000 square miles, somewhat smaller than Connecticut. The climate is subtropical with a hot, wet season (June-October) and a cooler, dry season (November-April).

The population of The Gambia is about 350,000; Banjul, the capital has about 30,000 inhabitants and English is the official language. Historically, The Gambia has been dominated by other African nations and more recently by European Countries. Around 1900 it became a British Crown Colony and remained so until February 1965 when it achieved independence. A constitution promulgated in 1970 provides for executive, legislative, and judicial governmental branches.

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FISHERIES

ARTISANAL

About 600 canoes are used for fishing in The Gambia; 200 are equipped with outboard motors, the rest are either sailboats or rowboats. Since the introduction of motors, larger canoes are being built, up to 40 feet long and 6 feet wide, and equipped with a 20-hp motor. The smaller row-and sail-powered canoes are generally 20 to 25 feet long and 3 to 3-1/2 feet wide.



Figure 2.-- Gambian fishing canoe. Fishermen guide their canoes through the surf by straddling the extensions. The Director of Fisheries, O. Taylor-Thomas, is at right.

To equip a canoe for an outboard motor, a 12-by 18-inch hole is cut in the bottom, near the stern; then a watertight, open-ended box, about 2 feet high, is constructed around the hole. After the boat is launched, the outboard motor is secured inside the box with the propeller extending into the water below the hull. The Gambian canoes, like the Senegalese, are log

dugouts fitted with several planks at the gunwhale to increase freeboard. In addition, extentions are attached to the bow and stern to assist in launching and beaching.

About 1,500 fishermen, 500 full-time and 1,000 part-time, operate in The Gambia. The part-time fishermen generally fish during the dry season and return to their farms during the rainy season. Approximately 60 percent of the fishermen are Senegalese, and 40 percent are Gambian. Total production of all fishery products in 1973 was about 20,000 tons, a significant increase from the 5,000 tons produced in 1968.

Fishing gear used includes cast nets, gill nets, beach seines, hook and line, tangle nets for lobster, and push nets and set nets for shrimp.

Bonga

Almost 75 percent of The Gambia's total production depends on one species, the bonga (Ethmalosa dorsalis). Catch estimates place current annual production at 15,000 tons. Part of this catch is consumed fresh in The Gambia, but about one-half is smoked and exported to Sierra Leone.



Figure 3.-- Typical West African hut for smoking fish. In The Gambia its susceptibility to fire is bringing about a change in construction from thatched to tin roofs.

There are 38 smoke huts with 110 employees processing fish in The Gambia. These smoke huts are located at beach sites where the fish are landed. They are built in varying sizes from 30-by-20 feet to 80-by-50 feet. Running the length of the hut are two platforms on which the fish are placed. Fires are made on the ground under the platforms. During the 4-day smoking process the fish are turned so all sides will be uniformly smoked. The fish are not scaled or cleaned before smoking because it has been noted that without the scales the skin swells and burns easily. After smoking the fish are tightly packed in wood cases holding about 225 lb each, or between 1,400 and 1,500 fish.

Barracuda

A seasonal fishery for barracuda (Sphyraena sphyraena) occurs between April-September, with the peak production in May-June. In recent years annual production has been around 500 tons. When this fishery began, hooks and lines were used; now the large, powered canoes use set nets that have increased the catch. Usually the barracuda are not processed, but are sold fresh.

Shrimp

Until recently only moderate amounts of shrimp (Penaeus duorarum) were taken by a few fishermen who used push nets in waist-deep water. In 1972, a small commercial fishery for shrimp began and about 40 tons were produced the first year. This catch increased to 80 tons last year. About 200 fishermen now operate large set nets that are anchored in the mouth of the Gambia River and catch shrimp on the outgoing tide. The best shrimp fishing season is between May and September.

Oysters

Oysters (Ostrea edulis) are found in beds and attached to mangrove roots from the coast to nearly 100 miles up the Gambia river. The oysters are either harvested by hand from canoes or by wading through the water. The harvest is taken to collecting points where several simple thatched huts have been built and fires are maintained. The oysters are then placed on the fire to open the shells. After shucking, the meat is placed in containers for marketing.

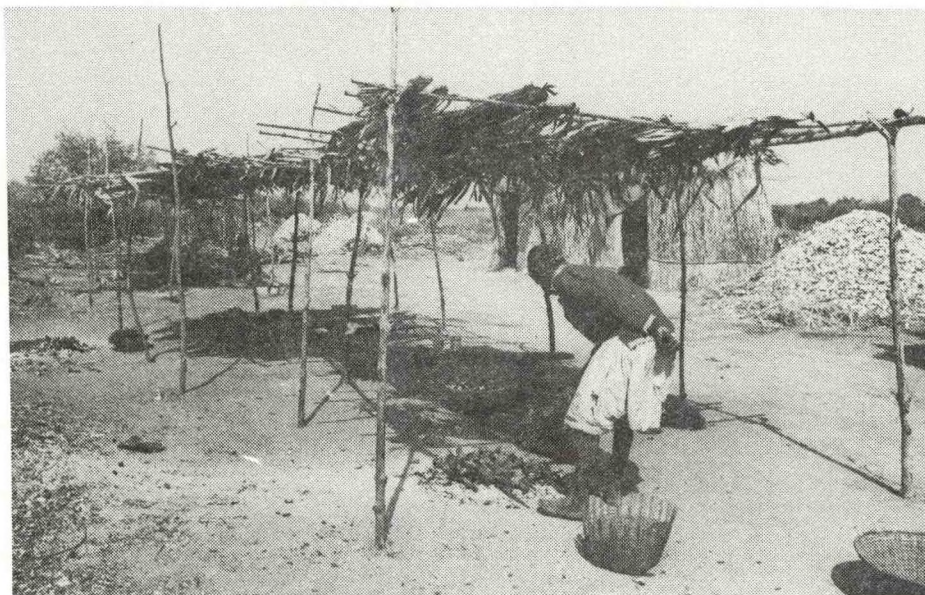


Figure 4.-- Oyster shucking in The Gambia. Small fires open shells and also lightly smoke the meats.

Fishermen receive from \$0.45 to \$0.60 per pound of meat, averaging about 125 oysters to the pound. The annual production is estimated at 100 tons. Oyster harvesting stops during the rainy season because of the danger created by sharks moving into murky waters resulting from the heavy runoff.

Cockles (Cardium sp.) are harvested at low tide in the estuaries by fishermen who use their bare feet to find them. These clams are also taken to nearby sites where fires are used to open the shells. The meat is removed, dried in the sun, and then packed for export. During recent years the entire production has been sold to Nigeria. Annual production is about 150 tons.

Other fisheries

Other fisheries include the taking of sharks and rays which are cut up, salted, and dried for sale locally and for export. A lobster fishery is carried out primarily by Senegalese fishermen, and the entire catch is delivered to Dakar, Senegal; therefore, production figures are not available. Finally, beach seines produce a mixed catch of catfish, croakers, drums, and mullet.



Figure 5.-- Sharks and rays, cut, salted, and drying on a Gambian dock for shipment to Ghana.

When selling fresh fish in the local markets, vendors group them into three price groups; A-B-C, with Class A being most valuable. Class A includes barracuda, croakers, grouper, mackerel, sole, and threadfins; Class B are bonefish, grunts, mullet, and ten-pounder; Class C are bongo, catfish, herring, and jacks.

INDUSTRIAL

This phase of The Gambia's fishing industry has just started to develop within the last 3 years and two companies are now operating. The first, Gambia Fisheries Ltd., is a joint venture with a Japanese consortium and the Gambian government (80 percent Japanese and 20 percent Gambian). The company has a 700-ton cold storage capacity and a 50-ton blast freezing capacity, which they are in the process of doubling. In addition, they produce 25 tons of flake ice per day. At present the firm operates a fleet of seven 10-ton vessels and buys the production of several hundred canoes. They also have 150 canoes catching about 20 tons of grouper (Epinephelus spp.) per day.

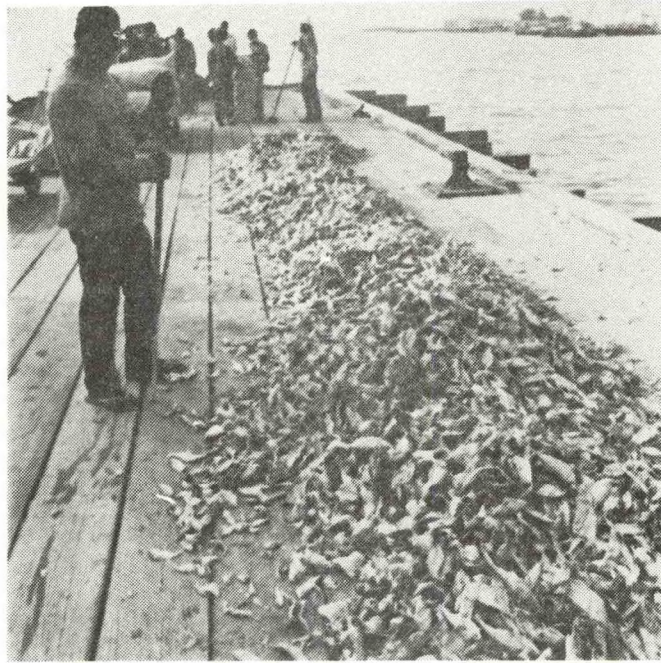


Figure 6.-- Dried herring and jacks being placed in large sacks (in background) on pier in The Gambia.

Gambia Fisheries buys, processes, and exports all of the shrimp produced in The Gambia. Shrimp for export to Europe are boiled (heads on) in water, to which a small amount of red coloring has been added. They are then packed and frozen.

The second company, Sea Gull Enterprise Ltd., has just completed construction of their cold storage facilities. This company is a wholly owned subsidiary of Mankoadze Fisheries of Ghana. The plant has a 500-ton cold storage space, and the company is installing a 25-ton/day flake ice machine. The firm has four sardine seiners whose production is packed, frozen, and exported to Ghana. The sardine (*Sardinella aurita*) they catch is available in greatest quantities from May to September. The company intends to expand into other fisheries using bottom trawlers.

A third company, Sea Crop Africa Ltd. is being formed. The company is backed by U.S. interests, and they intend to build a plant to prepare and export minced bonga. They are also planning to build a fish meal plant since the Fisheries Division has said there are adequate stocks of certain species of carangids, clupeids, polynemids, and trichiurids to support such a plant.

Although fish production is increasing, imports are also increasing. In 1971, 70 tons of fishery products valued at \$65,000 were imported; Spain and Portugal provided 85 percent of this total. The greatest import demand has been for canned sardines because of their low price and ease of distribution.

Port Facilities

Benjul has one ship repair yard with drydock, which will take ships up to 400 tons. There are two government-owned piers; one which is 290 feet long with 27 feet of water, and the other which is 500 feet long with 25 feet of water. In addition, there are several privately owned piers.

DIVISION OF FISHERIES

This is a young organization with a small staff, which was established after independence. Since then, the staff has worked hard to expand the country's fisheries and deserves much of the credit for the increased fish production. In 1968, a revolving loan fund was established to introduce outboard motors to the artisanal fishermen. Starting with \$5,000 they ordered 6-hp motors, which were adequate for the size canoe being used then. However, the increased efficiency of the outboard-equipped canoes soon led the Gambians to build larger canoes and buy 20-hp motors. Later, \$5,000 was added to the fund and the money which is repaid is returned to the fund. Under this plan nearly 200 motors have been purchased. To ensure efficient use of the motors the staff has several outboard motor mechanics who teach fishermen how to maintain their equipment.

The Fisheries Division has encouraged fishermen to try new or larger fishing gear. For example, the increased catching ability of large gill nets in the barracuda fishery was demonstrated. The Division was also instrumental in obtaining the services of an FAO fishery consultant who serves as an advisor on fishery matters. Recently a 2-year \$225,000, FAO/UNDP fishery project to introduce purse seine fishing was established. The seining will be demonstrated from two canoes and from a 40-foot, motor-powered seiner. The latter is currently being built in Ghana.

The Soviet Union volunteered to send a research vessel, the R/V Viandra, to survey Gambian waters. They planned to make four trips over a 1-year period to identify species and attempt to measure their abundance. Two of the cruises have been completed, and 95 species belonging to 57 families have been identified.

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