

## Research Reports

In November 1990 the IDAF Project organized in Kokrobite (Ghana) a Round Table on Fishermen's Migrations in West Africa. On that occasion several specialists with first-hand knowledge of the artisanal fisheries in West Africa presented papers, which appeared in the proceedings entitled *Fishermen's Migrations in West Africa* edited by Jan M. Haakonsen and M. Chimere Diaw (IDAF/WP/36, April 1991, Cotonou:FAO/DANIDA/NORWAY). Thanks to Dr. Haakonsen, who used to be attached as a socio-economist/ anthropologist to the IDAF programme in Cotonou, we gained permission to publish a few of the papers read in Kokrobite in a slightly revised form. We kindly thank him for his endeavors in this respect. Since it concerned working papers on research still in progress, the editors of MAST thought it a good idea to publish them in a new rubric called Research Reports. From now on our pages will be open for everybody engaged in the field of maritime anthropology to submit pieces in which he or she presents the results of work in progress, which may be of interest to our readership.

## Artisanal Fisheries and Fishermen's Migrations in Liberia

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### Introduction

Liberia has one of the longer coastlines in West Africa, 590 kilometers, slightly longer than that of Ghana or Senegal. However, fish resources are much poorer due to a combination of conditions unfavourable to large scale fish reproduction: narrow continental shelf, no major upwellings and a lack of long-term temperature gradients (Smart & Sheves 1979). Yet, if the available resources were fully exploited they would go a long way towards meeting the population's modest fish requirements.

One problem in this connection is the poor knowledge we have on Liberian maritime resources which is basically based on the quick surveys by research vessels. Estimates about potential yields vary greatly but normally fall within the ranges 9,000-15,000 tons for demersal species, 19,400-41,000 tons for coastal pelagic species and 1,200-1,600 tons for shrimp (Ssentongo 1987).

Poor catch statistics over the years do not help clarify the situation to any major degree.<sup>1</sup> They do indicate, however, that artisanal fisheries have played a very prominent role in the country's fish supply, at least until 1991 when all maritime fishing activities have come to a halt as a consequence of the civil war which is still raging in the country.

At one point, Liberia possessed a fairly large industrial fishing fleet which particularly went to the rich shrimp resources in the northern end of the national waters and also to some extent in Sierra Leonean territory (Smart & Sheves 1979). The industrial era in Liberian fisheries started in 1955 and witnessed the growth of one particularly large company, Mensurado, which was supplied by up to 30 vessels by the late 1970s (Eppler 1986). This company effectively went bankrupt after it was taken over by government just after the 1980 coup which brought the late Samuel K. Doe to power, and although other companies continued to exist, in name at least, and new ones emerged,<sup>2</sup> total landings by Liberian vessels have been consistently lower than artisanal ones throughout the 1980s according to official figures (see Table 1).<sup>3</sup>

### The Development of Artisanal Fisheries and Early Migrations

The first known reports of fishing and fishermen in Liberia or rather, what was originally labeled the Grain or Pepper Coast by the first European explorers, are those by Duarte Pacheco Pereira (see e.g. de Surgy 1969; Chauveau, 1986). In his famous voyage along West Africa's coast 1506-1508 he mentions 'the negroes' living beyond 'rio Cestos' (Cess river or Rivercess) and those in 'Grand Sesters' (Grand Cess), whom he refers to as: '...great fishermen who go fishing two to three leagues<sup>4</sup> at sea in some canoes resembling a weaver's shuttle' (de Surgy 1969:1).

Table 1. Total landings by sector in Liberia, 1980-88 (in tons)

|                         | 1980  | 1981  | 1982  | 1983  | 1984  | 1985  | 1986  | 1987  | 1988  |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Ind. fisheries - shrimp | n.a.  | 280   | 601   | 844   | 502   | 622   | 181   | 222   | 213   |
| Ind. fisheries - other  | n.a.  | 2,416 | 3,643 | 4,592 | 4,169 | 1,087 | 7,158 | 6,543 | 4,957 |
| Ind. fisheries - total  | 5,473 | 2,696 | 4,244 | 5,436 | 4,671 | 1,710 | 7,339 | 6,765 | 5,175 |
| Art. fisheries - total  | 8,318 | 6,578 | 5,909 | 6,280 | 6,766 | 6,367 | 7,108 | 7,966 | 6,870 |

Sources: Flowers (1986), for years 1980-85; Bureau of Fisheries (1989), (partly processed data sheets) for 1986-88.

There is little doubt that these were the people who became widely known as the Kru or Kroumen and who are still based on the same coastal stretch. Some sources claim a more recent origin for the Kru, for instance Hayden, who refers to five sources in support of the claim that the Kru only 'reached the coast perhaps 200 years ago after a series of intermittent stops during a journey from some area west of the Sudan' (1971:2). Most historical and anthropological evidence suggests otherwise, however.

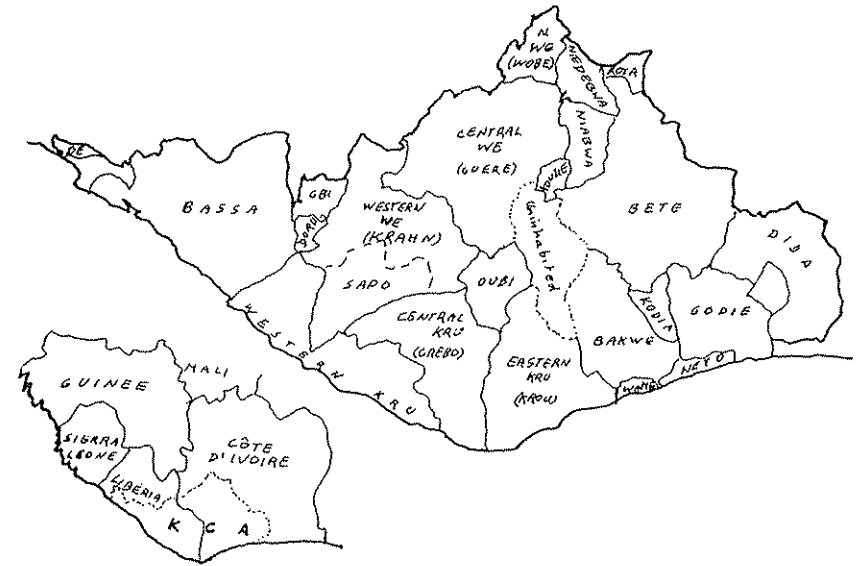
There is nevertheless considerable confusion around the term Kru or Krou, as it often refers to a whole cultural area or assemblage of related ethnic groups, 6 in Liberia and 12-15 in Côte d'Ivoire (Schwartz 1974; Massing 1980). The sea-faring Kru are thus usually referred to as Nanakrou in Côte d'Ivoire, while in Liberia and Sierra Leone they are simply called Kru, while the other sub-groups are called by different names (e.g. Grebo, Krahn, Bassa, etc., see map).

The first Europeans in West Africa were very impressed by these people adventuring themselves at high seas in miniscule canoes, and Portuguese, Dutch, French and English engaged them as both seamen and longshoremen to transport people and goods across the dreaded surf. The following quote by a 19th century sea-captain exemplifies the high regard of the Europeans for the Kru:

I must not forget the Kroo-boys – fine good-natured fellows, instinctively watermen, almost amphibious. Their native home is the country of Sinou in the central part of the Republic of Liberia. They are to be found all along the coast; in fact I don't know what the coast would do without them. They are invaluable, and represent the most generally useful – whether ashore or afloat – and important tribe on the West Coast of Africa. Without them it would be difficult to work, on this malarial coast, our men-of-war, mail steamers, foreign vessels, all loading and unloading being done by them (Moloney 1883:20).

Their association with ships and often actual employment as ship's crew, have led many people to believe that the very name Kru (or Krou) comes from the English word 'crew.' However, the terminology dates back to before the English expansion in West Africa. Schwartz, first tracing the employment of the name to the Portuguese version *Krao* in the late 16th century calls its resemblance to the word 'crew' simply a 'phonetical coincidence' (1974:1).

It is perhaps curious that a group of people with such an obvious familiarity with the sea, regardless of its dangers and almost unrivaled in terms of seamanship, should never evolve into an equally skillful assemblage of fishermen. Fishing has always appeared



Map 1. The Kru Culture Area (KCA)

to be an important activity among the Kru, especially certain clans referred to as the *kle-po*, literally fish-men (Massing 1980:240), and indeed many travel accounts from the Liberian coast of the 19th century in particular, refer specifically to these 'Fishmen.' However, even today their fishing methods and craft are basically unchanged from when Pereira first encountered their 'shuttle-like' canoes nearly half a millennium ago.

This has not prevented Kru fishermen from migrating out of their relatively narrow coastal strip in what are now Sinoe and Grand Kru counties. First of all, they spread along the Liberian coast and established distinct fishing communities in the coastal towns as they grew up, and today we find specially named Kru-towns in Monrovia, Robertsport, Buchanan (Zetterstrom 1969) and Harper. They also dominate the coastal strip from Sasstown well into Maryland county.

Migration across present national borders also took place at an early stage, probably because of the great demand for Kru as longshoremen. In Freetown, there was an established Kru community by the beginning of the 18th century, at one point counting 2,000 individuals, and although they may have been employed in other tasks, de Surgy is probably right in suggesting that there must have been some 'Nanakrou' (i.e. fishermen) among them (1969:133). The migration of Kru fishermen into their western Côte d'Ivoire settlements probably took place at the end of the last century with the establishment of official trading posts in Tabou, Bérébi, San Pedro and Sassandra, though the establishment of more or less permanent fishing communities came much later. De Surgy (ibid.) suggests 1940 for Tabou and 1952 for Sassandra.

More important for Liberia's fish production however was the arrival of Ghanaian migrants, in this case Fanti and Anlo-Ewe, to the country. According to the Fante community in Harper, Fante fishermen first started coming there in the 1920s. Gruvel (quoted in de Surgy 1965 & 1969) reported the presence of Fante fishermen in nearby

Tabou and the Ivoirian side of the border in 1912, so the report from Harper appears realistic, a continuation of the gradual westward and, from Harper (Cape Palmas) on northwestward movement of the Fanti in the early part of this century. Von Gnielinski (1972), however, says the Fante came to Liberia only in the 1930s, but it is not clear where this information originates.

In the 1940s, there appears to have been almost no Fante fishermen in Liberia, possibly because of the war, and when they returned, they were looked upon with suspicion as they were suspected of kidnapping local children for ritual purposes. It is interesting that a similar accusation, as de Surgy (1969) mentions, used to be made against the Ewe in Côte d'Ivoire, though probably unfounded. Possibly the Fante were being used as scapegoats to cover human sacrifice committed by secret societies of particularly the Americo-Liberians, as happened in 1986.<sup>5</sup> In any case, a FAO master-fisherman could in 1952 report 110 'Accra' (Ghana) canoes of an average length of 8 m along the Liberian coast, half of them in Monrovia (van Pel 1954). He also estimated the yearly catches of Fante and 'Popoh' fishermen at 2,640 tons. Two years later, one of his colleagues reported that 'many' Fanti were operating out of Rivercess and 'some' of Greenville. He made no mention of Monrovia though (Fredriksen 1957).

Less is known about the origins of the Anlo-Ewe migrations, but it is likely they are of more recent date, probably after World War II. It is interesting that they are referred to as 'Popoh' in Liberia, though it is established beyond doubt that they are Anlo-Ewe, though some have lived in both Togo and Benin and may even have been born there.

### Structure and Distribution of Artisanal Fishermen in Liberia today<sup>6</sup>

#### *National Fishermen: The Kru*

Most official estimates give a total of 700-900 canoes. The latest government census in 1985 gives the figure of 859 (Thornes 1986) operating from some 35 landing beaches in seven regions. However, in an extensive EEC sponsored survey of the Liberian coast in 1988, Ratcliffe & Lindley arrived at a figure of 'not less than 1,000' (1988:22). The corresponding estimated catches of the Kru were less impressive, an average of 1 ton per year or a total of about 1,000 tons.

The reason is that most Kru fishermen continue to operate pretty much in the same way as they always have, from small 1-2 man canoes (mostly one) and using almost exclusively simple handlines. The standard Kru canoe is 3-6 m, about 40-50 cm wide and with an extremely low freeboard. They are equipped with rudimentary sprit sails mostly made out of old sacks which are raised whenever there is a bit of wind, which is usually away from shore in the morning and towards shore in the afternoon. This also influences the fishing pattern: Kru fishermen usually go out to sea in the early morning and come back in the early afternoon.

The sails notwithstanding, the hand-paddle remains the principal means of propulsion of the Kru canoe and it can be hard work for the fishermen to reach out to the rocky bottoms favoured by the Kru. As a result, it is rare for a fisherman to go fishing more than every second day or three days a week, the physical strain is such as to prevent daily excursions.

The gear used is mostly limited to handlines with baited hooks of various sizes: a sea-bream line for rocky bottoms is usually composed of three N 6-8 ringed bent hooks, a grouper line for more muddy bottoms of two N 2-4 ringed bent hooks and a sandy bottom line of seven N 9-10 ringed back hooks for small breams and mackerels. For surface and midwater, a line with one N 2-4 ringed bent hook is used (Anum Doyi & Wood 1988:46). Fishermen usually carry a selection of hooks and lines with them. In addition, trolling lines, sometimes with artificial lures, are used on the way to and from the fishing ground.

Nets are rarely used, the Kru complaining that they are unable to repair them. In Harper, a large number of nets was apparently introduced to the Kru in the 1940s (Wentholt 1987), but the effort lasted only as long as the nets. Another factor restricting the use of nets is the canoe size: from the smallest ones it is virtually impossible to set and pull even the smallest gill net. The situation is different for the larger 2-4 man Kru canoes which are sometimes built and can be up to 8 meters long, with a wider beam and a higher freeboard, showing some Ghana-canoe influences. A few, less than 20 in the whole country, are provided with wells for the mounting of engines of 10-25 hp, and these canoes are being used by Kru fishermen for more advanced methods such as gill-netting. Yet Ratcliffe and Lindley could during their survey only identify 'less than a dozen Kru fishermen who had made significant progress' (1988:21), exceptions they saw as 'motivated individuals who have broken free of the Kru community's social attitudes' (ibid:23), a somewhat bombastic and Eurocentric statement, perhaps.

Nevertheless Ratcliffe and Lindley are touching upon a factor which cannot be neglected, namely the socio-cultural organization of Kru society which may be a real impediment towards a more technologically developed fishery than that pursued today. All too often (e.g. Jorion 1986; Eppler 1986; and even Ratcliffe and Lindley 1988), Kru fishermen are dismissed as unskilled, part-time fishermen. This can be challenged. Regarding their poor fishing ability, an experienced Ghanaian fishing technologist brought up in a typical Adan line-fishing community comments: 'The Kru fishermen are generally described as crude and unskilled, but from my observations in Harper, I am convinced that these line fishermen are highly skilled in their profession' (Anum Doyi & Wood 1988:48).

As for their alleged part-time fishing, it is true that some (but by no means all) Kru fishermen in the towns, Monrovia in particular, adhere to their shipping traditions and now work mostly as dockworkers and stevedores, fishing only in their spare-time or when there is no work in the port. However, in rural areas they do little other economic activity than fishing. Even in their home territories where they own agricultural land, little time is spent on the farm. In the Kru traditional farm system, based largely on the slash and burn technique, the men are only responsible for clearing the land, which may take only a few weeks a year. All other activities like planting, weeding and harvesting are women's work. Thus the men are largely free to pursue fishing which they may not do as often as other fishermen in part because of the physical strain and the need for rest days.

Another factor is the relatively poor returns from line fishing outside the main population centres. Although the Kru catch mostly high quality fish, it seldom commands very high prices outside Monrovia or Buchanan. Quick market surveys conducted in Harper in 1986 and 1987 (Haakonsen & Sheves 1986; Wentholt 1987)

indicated that prices of species like snapper and grouper were only 25-50% higher than those of for instance caranx or barracuda and within the range of Liberian \$ 1-1.50 per kg.<sup>7</sup>

Catches are also mostly moderate. During a visit to Grand Cess in November 1986 the landings of all 24 canoes that had left for sea were observed. Except for two canoes which had caught a large shark each, and one with a sailfish of about 20 kg, most catches were well under 10 kg, and a few between 10 and 15 kg. It is doubtful that the total value of the fish landed from the 24 canoes that day exceeded Liberian \$ 200, Grand Cess market prices being lower than Harper (Haakonsen & Sheves 1986).

Somewhat better were the results from the three landings of 18 Kru canoes followed in Greenville, also in November 1986. Catches here, which were quite mixed, totaled 591 kg for an average of 10.9 kg per canoe per landing. By comparison, the catches of six Fante fishermen using 2' to 3.5' gillnets from six locally built larger 'Kru-type' canoes, were an average of 18.1 kg, almost exclusively butternose (*Polydactylus*) and/or cassava fish (*Pseudotolithus*).

We have to remember, however, that capital and operating costs for the Kru are very low. A small canoe costs \$ 50 to \$ 150 and lasts several years, sail and paddles are similarly not very costly, the same goes for lines, weights and hooks. The only real operational cost they potentially face is bait which preferably is sardineella bought from the Fante, but can also be caught by the Kru themselves with castnets.

#### *National Fishermen: The Grebo*

The Grebo are closely related to the Kru (Massing [1980] suggests they should be called the Eastern Kru), but do not have the same maritime tradition. Nevertheless they pursue some fishing, though close to shore, often with good results. Ratcliffe and Lindley reported castnet fishermen in Harper (most probably Grebo but not 100% confirmed) catching up to a bucket of small mullets in one throw and which they rightly pointed out was 'more than many Kru fishermen catch in one day' (1988:21, appendix 3).

The Grebo are otherwise known for two specialities within fishing. One is diving for gigantic oysters of up to 15 cm which they get loose from their rock-beds with hammer and chisel. The second, regrettably, is to use dynamite, one of the very few instances where this method is used for marine fishing in West Africa. Besides being very damaging to fish breeding areas and wasteful, as only a small part of the stunned fish is recovered, fishing with dynamite is obviously dangerous, something a few blind and hand-less ex-fishermen in Harper can attest to. As a whole however the Grebo's contribution to national fish production is insignificant.

#### *Immigrant Fishermen: The Fante*

Good descriptions of Fante fishermen have been presented in many other publications (e.g. de Surgy 1965 & 1969, Vercrujisse 1984, Christensen 1977). Therefore only their main characteristics as relevant to Liberia in particular will be dealt with here.

We have seen that the Fante have been active in Liberia for a long time, with a possible break during World War II and occasional 'withdrawals' in the 1960s and 1980s due to conflicts with the administrative authorities. Today, most Fante fishermen come from Komenda, British Komenda in particular (as opposed to Dutch Komenda a few kilometers away). This conforms well with de Surgy's (1969:241) observations from

Côte d'Ivoire on the basis of which he concludes that Fante fishermen abroad tend to group together according to place or village of origin.

Today's Fante's appear firmly established and almost absorbed into Liberian society (though with continued Fante socio-cultural characteristics). Probably because of the long distance to Ghana, company contracts appear to be longer than in other countries the Fante migrate to, namely 3-7 years. It is usually only a 'big man,' i.e. the canoe owner, who can afford to go home on visits during a contract period, ordinary crew members have to wait until it ends. Many of them may then go on for a second, third or fourth company contract in Liberia. Yet, the apparent integration does not make the fishermen fullfledged Liberian citizens, even those having lived there for 20 years or more retain their Ghanaian citizenship. Most also live under rather poor housing condition, not quite daring to invest in a proper house and good furniture for fear of loosing it all of a sudden one day. Such investments are usually made in their home village in Ghana.

Figures for the development of the number of Fante canoes, here included a handful of 'Popoh' canoes, have lead some people to conclude that artisanal fisheries has been stagnant or even declining, in the 1980s in particular (e.g. Ssentongo 1987; Eppler 1986). However, the problem may again be poorly kept statistics (see for the official figures and most quoted estimates Table 2).

Particular attention should be given to the 1988 figure taken from the Ratcliffe & Lindley survey and which is no doubt the most accurate frame survey in recent years. It also gives the highest number in nearly four decades indicating anything but a decline in Fante fisheries in Liberia. Moreover, it should be remembered that while the canoes counted by van Pel in 1954 were an average of 8 metres, the ones accounted for in 1988 were between 9 and 17 m and equipped with 25, 40 and 50 hp outboard engines.

Not knowing the exact distribution of these canoes by type or size, no accurate estimate can be made of the number of Fante fishermen in Liberia. But an educated guess, based on an average of 12 crew members per canoe (apprentices included) would give us a total of about 3,000. In addition come the families, most of them also Fante. Just as at home, the wives and other Fante women are the smokers, traders and in some cases also credit suppliers. A few Fante fishermen have married local, usually Kru, women but this has little overall impact to the traditional pattern.

Table 2. *Ghana Canoes in Liberia*

| 1950 | -   | 1960 | 44 | 1970 | 86  | 1980 | 167 |
|------|-----|------|----|------|-----|------|-----|
| 51   | -   | 61   | 42 | 71   | 65  | 81   | 182 |
| 52   | -   | 62   | 80 | 72   | 50  | 82   | 206 |
| 53   | -   | 63   | 52 | 73   | 48  | 83   | 192 |
| 54   | 110 | 64   | 65 | 74   | 54  | 84   | 188 |
| 55   | -   | 65   | 91 | 75   | 88  | 85   | 147 |
| 56   | -   | 66   | 26 | 76   | 83  | 86   | 246 |
| 57   | -   | 67   | 53 | 77   | 87  | 87   | -   |
| 58   | -   | 68   | 43 | 78   | 179 | 88   | 262 |
| 59   | -   | 69   | 63 | 79   | 252 |      |     |

Sources: Van Pel (1954); Eppler (1986); Flowers (1986); Ssentongo (1987); Haakonsen & Sheves (1986); Ratcliffe & Lindley (1988).<sup>8</sup>

Most Fante canoes operate from naturally sheltered bases, of which the Liberian coastline offers a few, a factor contributing to lengthen the canoe's life.<sup>9</sup> This can be very important, as new canoes can only be obtained in Ghana and brought by sea route. Although *Triplochytion sclerexiton*, the raw material for the Ghana canoe, grows in Liberia in some quantity, there is no canoe building tradition of this type.

The fishermen use basically the same gear as they use in Ghana, among the more important being the *watsa* (purse seine) and *ali* (sardinella drift net/surrounding net) and which are used to catch the principal artisanal fish resources such as sardinella (*Aurita* and *Maderensis*) and bonga (*Ethmalosa fimbriata*). Support gear for the off-season and principal gear for smaller canoes include *tenga* set net (50-65 mm mesh size, 2 m deep), *tengaf* set net (100 mm mesh size, 2 m deep) *epabuakafani* (caranx) shark net (180-270 mm mesh size, 9-10 m deep) and *cedi* drift net (100 mm mesh size, 10 m deep) (Anum Doyi 1987:5). It should also be recalled that some Fante set netters have taken to use locally built canoes, which may account for the relatively many larger and higher free board 'Kru canoes' observed by Ratcliffe & Lindley.

Marketing and market outlets appears to be no problem for the Fante fishermen, smoked fish being appreciated all over Liberia and some also ending up across the border in Guinea. The fishermen's women follow the same procedure as in Ghana and smoke the fish, especially small pelagics. Only when they cannot handle the whole catch do they sell some fish to Kru-women for smoking. Kru-women otherwise do some retail trading of fish, particularly fresh fish in coastal towns while most smoked fish destined for inland markets appears taken up by traders from the Mandingo and other ethnic groups (Akerle 1979).

The main constraint faced by Fante fishermen in Liberia, in recent years anyhow, appears to be the local lack of engines, spare parts and nets of all kind, besides of course the problem of replacing a canoe.

#### *Immigrant Fishermen: The 'Popoh'*

As explained earlier, the 'Popoh' are actually Anlo-Ewe beach-seine fishermen. They are all concentrated in two locations, Popoh Beach in Monrovia and Robertsport. The beach seine companies are probably 7 or 8, some using very old Ghanaian dug-outs, some locally built, large 'Kru canoes.' Company sizes are said to be as small as 8 individuals (Jorion 1986:9), and the beach seine observed are also small and in worse shape than normal. Some Kru people are hired on a daily basis to haul in the seines.

The 'Popoh' seem to have been settled a long time in Liberia, the chief fisherman in Robertsport, for instance, had arrived in 1960 after having lived in Togo and Benin, though born on the Anlo peninsula. The 'Popoh' also complain about the lack of netting material, but seem to be in a state of general decline in contrast to the Fante community. Their contribution to the country's fish production is also extremely modest.

#### *Immigrant Fishermen: Others*

There is yet another category of foreign artisanal fishermen, though to call them 'immigrant' is misleading as they stay in Liberian waters for only a few days at a time and never touch land. These are Lebou and Ga line fishermen based in San Pedro (Côte d'Ivoire), some 120 km from the border. Equipped with up to 600 litres of fuel and ice

for a week, they venture into Southern Liberian waters where the many rocky grounds offer high quality fish which fetches extremely good prices in Côte d'Ivoire. That this activity is illegal, goes without saying, but it is uncontrollable and probably much less damaging to Liberian fish resources than, say, the dumping of unwanted by-catch from the many shrimp trawlers.

It is interesting to note that there have been reported attempts by foreign line fishermen to establish themselves in Harper, but this caused indignation and generated vigorous local opposition: hook and line has been and will always remain a Kru activity in Liberia, this is one area where foreign fishermen are definitely not accepted.

### **Government Policies and Impact of Migrant Fishermen in Liberia**

Fisheries policies in Liberia are generally inadequate or nonexistent, and in any case poorly enforced, except perhaps on a local level. The government has generally been very tolerant towards immigrant fishermen like the Fante, but this seems due more to 'laissez-faire' than to an actually established policy.

The regulation affecting the artisanal fishermen most directly is the yearly canoe licence fee reported to be \$ 40 or 50 for large (Fante) canoes and \$ 10 or 15 for small (Kru) canoes. There is no doubt that fishermen, especially migrant fishermen, do pay these fees to local fisheries officers, though it does not always appear in the records of the Bureau of Fisheries in Monrovia.

More obscure is the applicability of the rule that each foreign fishing company is only allowed to operate with a 51% Liberian partnership, apparently aimed at industrial companies. However, in Sinoe county this is (or was in 1986 at least) being applied to Fante companies, too, who solve the problem by employing the services of a local 'partner' who puts himself down on paper as the responsible Liberian for an initial fee and a certain percentage of daily catches. Similar 'local enforcement' of other regulations, real or imagined, seems not unusual, to the chagrin of the fishermen.

There appears to be no general legislation regarding artisanal vs. industrial fishing zones, and even if there were, it would probably have been unenforceable, too. This gives at times rise to conflicts between the two sectors, usually because artisanal gear is being destroyed by industrial vessels and their trawls. These conflicts, however, are generally restricted to the northern part of the country where the best trawling grounds are. Further south, rocky bottoms severely restrict the trawlers' range of operation.

When it comes to the impact of migrant artisanal fishermen to Liberian fisheries, this must be looked at on two levels; one dealing with the technical impact (educational, technology transfer, etc.), the other with the fishing sector and the economy as a whole.

On the first level, the impact must be said to be modest at best. In terms of fishing technology, nearly three quarters of a century's intimate contact and cohabitation (the Fante usually live in or near the 'Kru towns') the Fante seem to have been unable to teach their Kru 'counterparts' even the simplest technical innovations, such as for instance repairing nets. Not that they have tried, most Fante would scoff at the mere suggestion of hiring a Kru crew member on their canoes, but on the other hand, a Kru would never accept to lower himself to be ruled by a bosun and adhere to a company contract. Yet, there appears to be

Table 3. *Estimated Composition of Liberian Fish Supply*

| Supplier                    | Tons/year |
|-----------------------------|-----------|
| Fante fishermen             | 14,000    |
| Kru fishermen               | 1,000     |
| Local trawlers              | 1,200     |
| Foreign trawlers (by-catch) | 2,500     |
| Imports (frozen)            | 13,200    |
| Total                       | 31,900    |

Source: Ratcliffe & Lindley (1988:30)

little animosity between the two groups, each does its own fishing and not only is there no conflict between the two, they even complement each other.

The impact of migrant fishermen on fish production in Liberia, on the other hand, is dramatic and, in this observer's view, overall very positive. First of all, they provide the local population with a local fish supply, most of the artisanal catch being consumed locally. The contribution to total fish production may in fact be much higher than suggested in Table 1. Ratcliffe & Lindley suggest the artisanal landings to be at least twice as much as reported in official statistics and suggest the country's actual fish supply may be as represented in Table 3. This means that the Fante are responsible for 93% of artisanal catches, 76% of total domestic catch and 44% of total marine fish supply in the country!

The same authors also calculate certain direct economic benefits of the immigrant fishermen to the Liberian economy: for one thing, the Fante bring in considerable investments, 'a conservative estimate' of the replacement value of the Fante owned fleet and gear (most brought in from abroad) being US \$ 8 million; secondly, fish caught by the Fante (and which would surely not have been caught by the Kru or the local trawler fleet) represents an import substitution value of 'at least' US \$ 10 million (Ratcliffe & Lindley 1988:2). These are significant figures in a poor country of only 2 million people. The more indirect economic impact for Liberians is more difficult to assess, but is there nonetheless. Although most processing of Fante-caught fish is done by Fante women, the marketing of the processed product is handled by Liberians. Thousands of people must depend directly on this trade and thousand of others more indirectly (e.g. drivers, mechanics, people preparing food for or lodging long distance traders, etc.). Or to take another example, the fuel wood supply for smoking and which generally is brought by lorry at \$ 150 a load to the smoking women by Liberian drivers after having been cut by Liberian lumberjacks: How many lorry loads are needed to smoke nearly 14,000 tons of fish? How many local jobs are created just for this operation?

The exact answers, of course, cannot be given, but the examples presented should be sufficient to illustrate that the overall impact of migrant fishermen in Liberia is most probably good for the country and, not to forget, the fishermen themselves. At the moment, because of the tragic circumstances in Liberia, there is no fishing done at all in the country. Many fishermen have been evacuated back to Ghana,<sup>10</sup> and people are starving. Hopefully, the war will end soon, Fante fishermen may again be able to help feed the Liberian people.

## Notes

1. The Fisheries Department quite readily admits (unofficially) that its statistics is based on inadequate and dubious field data. The last can readily be confirmed by our own attempts to obtain local catch statistics in 1986 and 1987 in Harper, Greenville and Robertsport. Despite four visits and many promises, not one figure was seen in Harper; in Greenville a day's statistics from the landings of 7 canoes showed a more or less evenly distributed selection of such diverse species as barracuda, sardinella, ilisha, caranx, shark, sailfish, blackfish, butternose (threadfin), babablee, mackerel and bonga, all canoes but one having landed at least 15 kg of each. In Capemount, finally, all recorded catches of all species were 45 kg per canoe except for a few cases of 35 kg, again with great varieties in the catch composition:

2. According to unpublished government statistics (Statistics 1989) there were as many as 45 Liberian trawlers in the country, most of them in the 150-500 tons range. This seems rather excessive compared to previous years as shown in the table below, but may well take into account 'flag of convenience' vessels

### *Number of industrial trawlers in Liberia*

| 1971 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|------|------|------|------|------|------|------|------|------|------|
| 32   | 13   | 11   | 18   | 24   | 25   | 13   | 34   | 29   | 45   |

Sources: FAO Data base for 1979-87, Bureau of Fisheries for 1988

registered in Liberia and operating in West Africa, but outside Liberian waters. A relevant point here about industrial fishing vessels operating in Liberia is that most are actually foreign fishing for a 'joint venture' company. Officers are usually European, Greek in particular, while the crew members to a large extent are Ghanaians, usually Fante: another example of fishermen's migrations.

3. A few additional remarks should be made here. First of all, the quality of the statistics is such that they must be treated very cautiously. Second, industrial shrimp catches have dropped dramatically, officially at least, from the 1970s (from 1973 on they were at least 1,300 tons to the 1980s. And third a recent and well-founded estimate (Ratcliffe & Lindley 1988) puts artisanal catches at about twice the official figures in recent years, i.e. about 15,000 tons, while industrial catches are calculated to be only around 3,700 tons.

4. A sea league is equivalent to three nautical miles or 5.556 kilometers.

5. In the beginning of November 1986 the mutilated corpses of two young boys were discovered in the outskirts of Harper, obvious victims of ritual murder. 33 Fante fishermen were promptly arrested as 'suspects,' but this resulted in violent actions by students of the local Polytechnic and other members of the population who, rightly it seems, suspected members of the town's elite to be the culprits. After heavy demonstrations November 5th, the Central Government agreed to an inquiry and at the end, several prominent people in Maryland county, including the county judge and the representative of the ruling party, were found guilty of the crime and sentenced to death.

6. 'Today,' of course, refers to the situation immediately preceding the current devastating civil war.

7. This was just after the introduction of the so-called 'Doe-dollar' which at the time was 25-30% less than the official rate of Liberian \$ 1 = US \$ 1.

8. Thornes (1986) gives a figure of 317 large canoes for 1985, but it is in contradiction with all other figures from his Ministry.

9. Ratcliffe & Lindley report 'a lifespan of up to 35 years' for the Ghana canoes in Liberia (1988:11), but this is clearly unrealistic.

10. In connection with the evacuation from Liberia of thousands of West Africans by ship in the beginning of September 1990, including 780 Ghanaians from British Komenda, this village was visited September 21 and 23 to find out about the fate of Ghanaian fishermen in Liberia. Here are extracts of the report (Haakonsen 1990):

Ghanaian fishermen seemed to have fared better than many other groups during the civil war though they have not been allowed to fish since May/June.

The only confirmed casualties (by September) among Fante fishermen are from Buchanan where four were shot and killed when the rebels occupied the town. In Monrovia, some fishermen and their families have been wounded by stray bullets, but their main residence area (Westpoint) has been outside the main battle fronts.

The fishermen based in Capemount (Robertsport) have managed to slip across the border to Sierra Leone with their canoes and gear. Similarly, a few based in Harper have crossed to Côte d'Ivoire, though some fishermen have been reported to be arrested by rebel forces in their 'escape attempts.' All other Fante canoes are still in the country.

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