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Summary

A review and analysis of the operations of the state-owned fishing corporation as constituted in 1966 is presented. Among the subjects discussed are the corporation's share in fish production, distribution and marketing and the impact of consumer preference. The development of additional marketing outlets through processing (primarily smoking) of landed fish, is urged.

Introduction

FISH plays a dominant role in the diet of Ghana. With the exception of northern Ghana, it can generally be said that fish consumption in Ghana surpasses that of meat considerably, varying from 30 lb. to 60 lb. annually per head of the population, on fresh weight basis. Only the population around major fish landing spots consume fresh fish to any appreciable degree. However, even in these places consumer and trade preferences require the transformation of more than half of the fresh supply into cured forms, such as fermented, dried, salted, and, most of all, smoked fish at wholesale, retail, or household level.

There are two reasons for this preference:

(*a*) Trade and households generally lack cold storage facilities—therefore prefer fish in less perishable form.

(*b*) Fish is mainly consumed as an ingredient of soups, thus the cured form is preferred for its stronger flavour.

Whereas the distribution of fresh fish is limited in radius, that of cured fish is widespread in Ghana. The supply of animal protein from domestic sources is insufficient for the needs of the population and has to be augmented by substantial imports from abroad. While the meat situation even with genuine effort can only improve over a considerable period of time, fish supplies can be increased systematically by improved methods including capital and trained manpower input.

The Government of Ghana, therefore, following the initiative of Ghanaian fishing companies, began to employ deep-sea vessels with refrigeration equipment, which from 1962 onwards landed increasing amounts of frozen fish at the main harbour, Tema. Since the catch was landed in frozen condition, it appeared worthwhile to establish a cold chain throughout the country, thereby enabling many Ghanaian consumers to enjoy the supply of frozen fish. While private companies remained reserved toward such vertical production-trade integration, the State Fishing Corporation (SFC) fully subscribed to it. After a popular start with massive political support, frozen fish production and marketing soon developed problematic features. The fleet ran at a much higher cost than competing foreign fleet and became highly dependent on foreign management.

Difficulties in the control of the distribution network and the smooth disposal of frozen fish were experienced and most of all, the majority of Ghanaian consumers appeared not prepared to accept frozen fish as such, but rather accepted it after fish traders around distribution depots had thawed and smoked the fish for sale. Serious attention was drawn to the situation when the State Fishing Corporation experienced a severe decline in sales during 1966. It was then, that this author contacted the Corporation and with its permission conducted this study during mid-1966. Since then, the basic problems have remained unchanged: improvements, however, are under consideration and first steps in the line of recommendations included in the present study are being taken.

Note: The currency used in the study is the cedi (₵) as in circulation until 24th February, 1967. The rate of exchange then was ₵2.40 = £1 sterling = $2.80.

The Corporation's share in the supply of fish in Ghana

One of the earliest state enterprises to be established in Ghana was the State Fishing Corporation. Private Ghanaian enterprise was already engaged in the building-up of an off-shore motor fleet when the Government joined in with the establishment of the Corporation in 1961. Initial mistakes in the selection of vessels ordered from abroad retarded the impact of this Government investment. From 1963 onwards, however, the share of state-owned motor vessels in the total catch of this rapidly growing category fast increased. Table 1 shows the development of imports and domestic catch, especially by private and state-owned motor fishing vessels (MFV), as extracted from government statistics.[1]

The role played by the Corporation in distribution was even greater than in production, since apart from its own catch practically all imported catch (i.e. from contract vessels) was distributed by the Corporation which, from 1964, enjoyed the monopoly of marine fish distribution. Table 2 shows the Corporation's share in production and distribution of fish for Ghana for the years 1963–65.

[1] These statistics were drawn from records compiled by the Ministry of Agriculture and its Fisheries Division—and supplemented by the author's own estimate for fresh water catch.

Table 1

THE DEVELOPMENT OF IMPORTS AND DOMESTIC CATCH 1961–65
(IN '000 TONS)

Imported fish	1961	1962	1963	1964	1965
Frozen fish (contract vessels)	46	20	33	20	23
Cured and canned	—	20	14	11	14
Total Imports	46	40	47	31	37
Domestic catch					
Canoe fisheries	27	33	36	42	17
Private MFVs (excluding tuna for re-export)	3	5	13.5	20.5	27
SFC-owned MFVs	—	—	0.5	3.5	15
River and lake fisheries	12	12	12	12	14
Total domestic catch	42	50	62	78	73
Total consumption	88	90	109	109	110

Table 2

THE STATE FISHING CORPORATION'S SHARE IN FISH PRODUCTION AND DISTRIBUTION 1963–65

	Fish produced by SFC as pecentage of			*Fish distributed by SFC as percentage of*		
Category	1963	1964	1965	1963	1964	1965
Total fish supply	0.5	3.2	13.5	13.0	21.5	32.5
Marine fish landings (including contract vessels)	0.6	4.2	19	17.5	27	45
MFV landings (including contract vessels)	1.0	8.0	23	31	53	57
Ghanaian MFV landings	3.6	14.5	36	—	—	—

The Corporation's distribution system

The new Tema Harbour, where because of available cold storage facilities all the Corporation's supplies are landed, was and still is bare of marketing facilities. This as well as the assumption that existing local trade would not be able to take up marketing and distribution of the increasing bulk landings of frozen fish, affirmed the Corporation's decision to build up a distribution of cold-store depots throughout the country. In order to maintain an active control on retail trade margins, an increasing number of retail shops were opened by the Corporation around major depots (Accra and Kumasi) while other depots were equipped with retail facilities. By June 1966 the Corporation owned 21 out-station depots and 16 retail shops.

Since fish has been in good demand in recent years, favoured by the introduction of relatively low government control prices, the depots and shops have met a ready demand, while the Tema Cold Store was able to hold considerable supplies in order to even out temporary gluts and shortages. By applying a policy of rationed supply and package-deal sales, covered by monopolized importation rights, the market has until recently been kept slightly under-supplied, which resulted in relatively easy sales. However, price reductions and losses through deterioration of stock occured in outstation depots and shops, of account of faulty refrigeration or as a result of poor transport facilities.

Transport equipment indeed is lagging behind, apparently because of difficulties in deciding on the alternatives of insulated or refrigerated vans. During the greater part of 1965 approximately 50 per cent of deliveries from Tema to depots was carried in open lorries—the fish arriving in a partly thawed condition. Less than five per cent of the deliveries was transported by refrigerated lorries, the rest in insulated vans. Of the total volume, 40 per cent had to be contracted out to private transport owners.

The impact of consumer preference

No processing has yet been ventured by the Corporation. The fish is distributed frozen in cartons of 44 and 66 lb. as received ready-packed from the vessels. The system differs from the indigenous method of curing—which is mainly smoking the greater part of the catch before distribution. Though this would appear to be the more economical way of distribution, the Corporation gave priority to frozen fish distribution, on the assumption that consumers would develop a preference for frozen as against smoked and other cured fish, which so far had been the only kinds available to approximately two-thirds of the population. It is, however, interesting to note from the results of surveys undertaken in the course of this study,[2] that there has been no noteworthy change in consumption habits. In coastal areas frozen fish distribution supplements fresh and cured fish markets (the latter after smoke-curing at the wholesale and retail level), while approximately 90 per cent of all frozen fish sold inland is retailed after smoke-curing. Smoke-curing

[2] Conducted at Ho, Nkawkaw, Koforidua, Obuasi, Cape Coast, Takoradi and Accra, in June 1966.

is not only preferred by the retail trade, but also by the consumer who would otherwise make more use of retail sales facilities at the depots whose retail sales rarely exceed five per cent of their turnover. Moreover, the survey shows that much of the frozen fish purchased by coastal consumers is smoked or otherwise preserved at home.

Since the inland population had little experience in curing, hundreds of women from coastal villages migrated north to process the volume of fish released by the Corporation's inland depots. On average, one woman trader smoke-cures and retails one carton of fish per day. The relative scarcity of their skills in the interior explains the fair profits yielded in their trade, as is evident from excerpts of government price statistics for April 1966 shown in Table 3.

Table 3

AVERAGE RETAIL PRICE OF SMOKED AND FROZEN FISH IN INLAND TOWNS

Town	*Frozen fish (lb.)*	*Smoked fish (lb.)*
	pesewas	*pesewas*
Ho	18	40
Kumasi	24	54
Tamale	18	53

These figures, however, have to be used with care, since the variety of species between the two groups (frozen and smoked fish) being compared differs widely. Nevertheless, factual observation of selected smoke-curing transactions at Ho, Nkawkaw and Accra during June/July 1966 have recorded gross profits from two to seven cedis per 66 lb. carton of frozen fish.

The price control system

Although the price policy of the Corporation was, and still is dictated by the Government Price Control Ordinance, the Corporation's management cannot escape some responsibility for the distorted price system, which is characterized by three aims:

(*a*) Bringing cheap fish to all parts of the country while almost ignoring distribution costs, mostly those for transport.

(*b*) Cutting retail trade margins without regard to retail costs. (This measure went so far that in some places one pound of fish had to be sold more cheaply retail than wholesale by the same Corporation.)

(*c*) Keeping prices for all species of fish near an average in order to hold the ceiling price down while at the same time ignoring the great difference in consumer preference for the various species.

Having concentrated price control on fish and frozen fish, the greatest part of the fish trade, i.e. processed fish, remained uncontrolled: in these circumstances the price control system failed to make its impact.

From sellers' to buyers' market

Further investments in fishing vessels, cold storage, wholesale depots, retail shops and refrigerated vans are programmed and some contracts for such facilities have been signed. If the programmes are carried through, the State Fishing Corporation might have to distribute more than 100,000 tons of fish from its own vessels by 1968. The fishing programme was designed in the framework of the Seven-Year Development Plan, based on an estimate for national fish consumption of over 200,000 tons by 1970.[3] However, recent revised estimates,[4] taking into account the lag in real income development, indicate an annual consumption in the region of 110-120,000 tons. Landings in this range are already in reach, provided canoe catches remain normal.

After the change of government in February 1966, private enterprise temporarily took over the greater part of imports of frozen fish which, up till then, had been channelled exclusively through the State Fishing Corporation. As a result of this development, the Corporation experienced difficulties in selling its own catch. The reasons for this need further explanation.

With the arrival of the second half of the SFC fleet from Japan and Norway in 1964–65, the Corporation took advantage of the fact that the catch on these new vessels with different refrigeration equipment, could be packed in 44 lb. cartons, compared with 66 lb. cartons on the older Russian boats, and demanded a preferential price differential of 12 to 15 per cent for this so-called "Japanese" and "Norwegian" fish. This idea was based on the observation that preferential prices were paid on the free market for similar-sized cartons from Japanese contract vessels landing fish in Ghana at that time. However, the fact was overlooked that the preference for the Japanese pack had been established because of first-class packing,[5] resulting in average weights of 48 to 52 lb. per carton, and also by a better grading of fish. Another important feature of the Japanese as well as Russian contract landings is that the catch contains a relatively high proportion of preferred species, e.g., the snapper fauna as against the low-valued species of the more easily-fished croaker fauna. The State Fishing Corporation fleet tried to maintain a similar catch composition but has abandoned the attempt for the time being because of high production costs.[6] Nevertheless, the landing price of the Corporation's catch was set above that of contract landing uniformly regardless of species—which, in fact, encouraged concentration on croaker fish. The insufficient differentiation of prices for the two species-groups at wholesale and retail level made the SFC catch composition still less attractive to the trade. So it is not surprising that the popularity of the Corporation's fish has been fast decreasing. Sales during 1966 have dropped to such an extent that the Corporation does not even sell the produce of its own fleet, which is already reduced since the Russian section of it was laid off following the repatriation from Ghana, of their senior crew members. This means reduction in sales by over 50 per cent and the creation of a "vicious circle". By the middle of July, 1966, i.e. at the outset of the herring season, the State Fishing Corporation had stocks for two months sales. There was, therefore, virtually no

[3] *Seven-Year Development Plan*, Office of the Planning Commission, Ghana, 1964.

[4] By personal communication, National Investment Bank, Accra.

[5] This superior packing is partly due to "contact-freezing" employed on the Japanese vessels as compared with "blast-freezing" on the Norwegian.

[6] The fishing grounds of the snapper are rocky—involving frequent ruin of the highly expensive fishing gear of motor vessels.

justification for imports from contract vessels, which normally served as the necessary inducement to dispose of the unpopular 44 lb. pack by means of package-deal sales. Since the Government is unlikely to grant the Corporation exclusive market and importation rights, a drastic price reduction of the 44 lb. pack seemed unavoidable. Table 4 shows the development of the Corporation's distribution network and sales. These figures show, besides strong seasonal fluctuations, the serious decline in sales. A phase has been entered when fish which is not competitive in choice, grade or price, will have difficulty in being absorbed by the market. This phase has been entered earlier than expected through the accelerated decline of real incomes during the first half of 1966. Only through improvement of choice, quality and distribution methods at competitive prices can fish consumption be further expanded. Re-organisation and consolidation, rather than expansion of production and distribution capacities, is now required. Above all, the growing pressure of competition will demand a high degree of cost consciousness on the part of management in the fish business.

The cost of frozen fish distribution through the Corporation

Table 5 makes a comprehensive analysis of the costs and profits of the Corporation's distribution section for the last completed accounting period, ending February 1965. The structure of the Table does not follow the Corporation's present accounting system, which is now in the process of improvement. Since the ending of the last accounting period the overall picture has somewhat changed insofar as:

(*a*) The proportion of total landings coming from the Corporation's own catch is increasing. (Production costs are higher than those of contract vessels, thus an increased average landing price has resulted.)

(*b*) With increased turnover the Corporation was forced to use more hired lorries which operated more cheaply than the Corporation's own transport. This led to a decrease in transport costs.

A study of Table 5 reveals why private commercial enterprise refrained from extending fish distribution inland but preferred to sell their catch straight from the landing depot. Price competition at these depots might flare up at any time. However, up to now, trading profits of these companies have been absorbed by the comparatively high costs of building up and operating their motor fishing vessel fleet. On the same basis the need for trade profits by the Corporation cannot be denied. The alternative is to decide either to raise prices for inland and retail sale considerably or, where the market does not allow this, to close down and increase the share of main depot sales. With the unavoidable price reduction for the 44 lb. pack—discussed earlier in the paper, the operation of the Corporation's production section will show even higher losses, which need to be balanced by wisely-managed trading operations.

Apart from a contraction of the distribution network, there are a number of potentialities for independent improvement, of which only the stock management at the main depot will be mentioned here. The high average storage costs at Tema, approximately one and half pesewas per lb., reflect an average storage period per carton of four weeks, while private fishing companies succeed in having a turnover period of one to two weeks.

Table 4

STATE FISHING CORPORATION SALES (IN CEDIS): 1964–66 FOR SELECTED MONTHS

(Rate of exchange: ₵2.40=£1 sterling)

	Main depot at Tema	*Outstation depots*	*No. of depots*	*Average sale/ outstation depot*	*Accra retail shops**	*No. of retail shop*	*Average sale/ Accra retail shop*	*Total sales*
1964								
June	510,000	840,000	12	70,000	41,000	12	3,460	1,391,000
December	542,000	422,000	17	25,000	27,000	16	1,700	991,000
1965								
June	368,000	1,214,000	17	71,400	54,000	16	3,400	1,636,000
December	258,000	568,000	20	28,400	45,000	16	2,800	871,000
1966								
May	170,000	307,000	21	14,600	27,000	16	1,700	504,000
June	104,000	227,000	21	9,250	26,000	16	1,600	357,000
Percentage of total sales, June, 1966	29	64	—	—	7	—	—	100

*Accra retail shops constitute two-thirds of the Corporation's retail outlets. The remaining retail sales which constitute less than three per cent of all depot sales, are included in the figures of the supplying depots.

Table 5

STATE FISHING CORPORATION DISTRIBUTION COSTS AND CONTROL PRICE MARGIN OCTOBER, 1963–FEBRUARY, 1965

(100 pesewas = 1 cedi/240 pesewas = £1)

	Cost in pesewas per lb.	*Cost price in pesewas per lb.*	*Average control price per lb.*	*Control price margin per lb.*	*Gain/Loss per lb.*	*Turnover (in mill. lb.)*	*Total Gain/Loss (in '000 cedis)*
LANDED PRICE							
(including duty, dock and handling charges) ..		12.00					
Storage charge at Tema	1.54						
Other costs at main depot, Tema	0.37			2.50	+0.59		+368
	1.91						
EX MAIN DEPOT, TEMA		13.91	14.50			62.23	
Transportation: to and at outstation depots ..	0.60						
Other costs at outstation depots	1.52						
	2.12			1.00	–1.12		–415
EX OUTSTATION DEPOTS		16.03	15.50			37.00	
Retail shops:							
Accra	3.33						
Less transport (outstation depot)	.40			1.00	–1.93		–97
	2.93						
EX RETAIL SHOP, ACCRA		18.80	16.50			4.20	–144
Distribution loss							
				Operational loss, production section			–432
				Operational loss, SFC (total)			–576

Evaluation of the present distribution system as against alternative systems

The State Fishing Corporation's policy of "fish at low price for the people" has not been implemented in several respects: The reasons being—

(*a*) Frozen fish as a substitute for fresh fish is accepted less readily, and this is complicated by various interruptions in the cold chain and frequent over-long storing which make the quality of frozen fish purchased by the consumer comparatively low.

(*b*) To supply good quality frozen fish to consumer markets is expensive. Control prices fixed below cost price can only continue until the Corporation which adheres to them runs out of funds.

(*c*) There is only a small consumer demand for fresh fish and negligible demand for frozen fish in the greater part of the country. What is wanted is cured fish, predominantly smoke-cured fish.

(*d*) Low-price retail shops for fish seem to have had no substantial impact on general price levels since the Ghanaian consumer has a strong preference for the traditional market. This preference is not likely to change considerably in the near future.

The capacity of the market under the present system seems to be slightly limited above the level of the 1965 sales. One of these limiting factors is the need for package-deal sales under the present price control system. Since there is insufficient difference in price between the more popular and less popular species, wholesalers' demand is often discouraged by the need to buy, together with the desired species, also the less popular fish at prices which cannot be recovered in the market. Free market retail prices show a price relation of 3:5 between black fish (croaker fauna) and red fish (snapper fauna) while the control price relation is 5:6 (retail) and 9:10 (wholesale). Besides, the fact that the women often delay wholesale purchases in expectation of a more favourable composition of supply, this system does not clearly indicate which composition of catch is the most profitable. The croaker fauna, for instance, can be exploited at lower production cost. How far advantage should be taken of this fact, or how much more profitable it would be to fish at higher cost for snapper fauna, can only be indicated for each trip by a free price mechanism ashore. An improvement of the system in this respect only, might widen the present market by more than 20 per cent.

A price reduction for frozen fish in general should not be expected. The satisfactory trade profits obtained at the landing end were at first used to build up a Ghanaian off-shore fleet, but subsequently needed to absorb the high initial operation losses of this fleet. Since the national fleet is gradually abandoning lucrative import consignments these losses are likely to increase in total. For sales outside the main depot, control prices (if they are to be maintained in the future) will have to be raised on the average by approximately one pesewa per pound, wholesale, and two to three pesewas per pound retail, if the Corporation's distribution system is to be run without subsidy. It should be remembered here that this is not applicable to SFC fish packed in 44 lb. cartons, since this fish enjoyed an undeserved mark-up under the present price control schedule.

The necessary adjustment of selling price to cost price in outstation depots and retail shops will most probably affect the Corporation's sales and accelerate the decision to contract its present distribution network. There is no argument against selling frozen fish everywhere, but consumers must appreciate that they must pay prices covering the real cost of this service.

Such contraction would mean further increase of bulk sale of frozen fish at Tema, resulting sooner or later in oversupply, since traders rarely have their own insulated transport and/or storage facilities and, therefore, fish released to them does not reach distant markets in frozen state. Furthermore, the quality of the fish suffers from unsatisfactory transport and poor storage conditions and therefore the produce is in an advanced state of decomposition at the time of processing. This, of course, influences rather adversely, the quality and shelf-life of the smoked product.

This raises the question of processing. Much of the frozen fish bought at Tema, is smoked-cured by women traders there, in Accra and in nearby villages for sale in coastal and inland markets. However, the indigenous processing capacity cannot cope with the impact of the increasing volume of frozen fish landings concentrated at this one point on the coast. The development of commercial smoke-curing plants at Tema is therefore suggested. That this has not yet been undertaken may be attributed to the following factors:

(*a*) The under-supplied market during the last few years was ready to accept fish in any form. Therefore, commercial trade has been concentrating on investments in production, i.e. fleet expansion.

(*b*) An insecure feeling is evident among potential investors on the question of competing with the skill of indigenous processors by the employment of industrial equipment not yet proven. The question of fuel (wood), flavouring additives, etc. is here very important.

(*c*) Smoked fish has a longer shelf-life compared with unprotected frozen fish. Beyond a period of two to three days (if well packed), however, the shelf-life of the product can only be prolonged by frequent re-smoking, which, after packing, would be too costly for a commercial plant. This means a very efficient system of disposal is needed to avoid loss.

(*d*) Reservation on the part of government is evident due to a protectionist attitude toward new methods which might decrease employment at the traditional level. However, commercial smoke-curing is not a large-scale business due to technical limitations implied in the system.[7] The share of commercial smoke-curing plants would probably not grow faster in the next few years for them to take over the added volume of increasing consumption.

According to surveys carried out in the course of this study, the cost of traditional smoke-curing averaged around two pesewas per pound of fresh fish input. In addition, a profit margin of the same amount is added to the cost.

In general, the cost of commercial smoke-curing need not be above the cost of traditional smoking. Moreover, trade, transport and handling margins will be substantially reduced so that it can be sold at lower prices in consumer markets. This is most obvious in transport costs, since with a weight loss of 35 to 50 per cent and no need for insulation and/or refrigeration equipment, these costs will drop by nearly 50 per cent when long chassis vehicles are introduced by the processor. Such vehicles could also be utilised for the carriage of firewood and other bulky produce, as return freight.

[7] For example, the projected annual capacity of the smoking plant in the so-called "fish-complex" under construction at Tema is only about 1,800 tons or approximately an intake of 3 per cent of the fish landings at Tema Harbour.

It may be agreed that a considerable increase in consumption of fish could be achieved by supplying to markets throughout the country, good smoked fish at cheaper prices than are at present. Fresh fish, properly processed, hygienically packed and immediately despatched from Tema for distribution to markets throughout the country will most likely have better properties of taste, appearance and shelf-life than the product now on the market.

Conclusions

This paper analyses the marketing operations of the Ghana State Fishing Corporation and comes to the following conclusions:

(*a*) The tremendous loss of turnover suffered by the Corporation during 1966 is not due to the reduced catching capacity after the change in Government in February 1966, but is the result of erroneous marketing policies and inefficiency over a much longer period. With the opening of importation rights—which formerly were enjoyed solely by the Corporation, to private fishing companies in early 1966, customers were given the opportunity to turn to more efficient suppliers. In spite of the reduced fleet, SFC stocks and cold storage charges piled up and its vessels had to land their catch at a loss in foreign harbours, while at the same time substantial quantities of fish were imported into Ghana.

(*b*) The main pitfalls in the Corporation's marketing policy were:

- (*a*) Though the inland Ghanaian population prefers smoked to fresh and frozen fish, an expensive cold storage network had been established. The result was that fish curing women migrated inland in order to smoke the fish released by the Corporation's depots before it could be retailed; thus their trade margin is necessarily high.
- (*b*) An unrealistic sales price system was introduced with little differential between the usually preferred species. As a result, the preferred species sold out fast, while the less preferred ones were chronically overstored at heavy storage expense.
- (*c*) This situation was aggravated by granting the Corporation a uniform landing price for all species thus prompting increased landings of the easier catchable lower species.
- (*d*) To solve the problem of mounting stocks of undesired species, conditional fish supply.[8] to the Corporation's wholesale depots and retail shops was introduced. This paralysed the recording of the real demand for the different species and total sales were slowed down toward the turnover of the least demanded stocks.
- (*e*) Partly as a result of (*b*), (*c*) and (*d*) the influence on the production section was poor and deliveries of badly packed and graded produce were tolerated, while claims by wholesale customers and depots were largely disregarded.

[8] That is, fish assorted according to stocks.

(*f*) Poor stock management added to the low storage economy implied in the system. The long average storage period of four weeks per unit indicate frequent over-storing with resultant gradual quality deterioration, often not noticeable in the frozen condition.

(*g*) Frozen fish consignments were too often inappropriately handled and transported with frequent and excessive interruption of the cold chain—as for example, in transportation on open lorries and delays of non-refrigerated transport to inland depots by over-night stop-overs, due to an absence of appropriate control measures.

(*h*) Quality deteriorations as caused by (*f*) and (*g*), were very reluctantly admitted and the necessary price reductions and depreciations too often delayed.

(*i*) Wholesale depots were opened in places where the demand could not justify the cost of investment and operation of a depot—as for example, at Tamale and Bolgatanga. This same situation applies to Anumle, Mitchel Camp, Tema Community No. 2, etc., where a number of retail shops were opened by the Corporation.

(*j*) Insufficient allowance was made for distribution costs in the price calculation of outstation depot and retail sales, which added to the low commercial result of the operations.

Recommendations

As means to improve the marketing operations of the Corporation, the following suggestions may be considered:—

(*a*) Setting up a smoke-curing plant at Tema in order to divert a substantial part of fish supplies from frozen to smoked fish distribution;

(*b*) Replacing the rigid and unrealistic price control system by flexible wholesale and retail prices and introducing a price and bonus system for the production unit, which reflects the demand structure with regard to the various fish species as recorded by free market prices ashore;

(*c*) Concentrating sales at Tema and contracting outstation depots and retail shops to private operators or closing down where considered uneconomic.

(*d*) Reviewing price calculations for sale ex outstation depots and retail shops with the aim of recovering the full cost of such services;

(*e*) Accelerating stock movements by synchronised planning of production and marketing and full use of price manipulation and other promotion efforts;

(*f*) Applying the strictest control over quality and weight of the packed produce in order to regain the widely lost confidence of wholesale and retail customers