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Training of manpower in the marine fishing industry of Nigeria

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THE TRAINING OF MANPOWER IN THE MARINE FISHING INDUSTRY OF NIGERIA

by

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The contents of this paper reflect my own personal views and are not necessarily endorsed by the UNIVERSITY.

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ABSTRACT

Although specialised agencies of the United Nations Organisation have assisted in the development of the Nigerian fishing industry, this assistance has been directed mainly to the organisation and management of traditional fishermen of the riverine villages whilst the less labour-intensive and more productive industrial fishing at sea has been left to the exploitation of foreigners. More than 160 trawlers, some being more than 3,500 GRT, currently operate under licence in the exclusive economic zone of Nigeria and not one of them is manned entirely by Nigerians.

The subject of manpower development in the sea-fishing industry of Nigeria is therefore one that is in need of urgent attention and so the purposes of this project are to direct attention to it, to identify the main problems associated with it and to offer some constructive suggestions concerning it. In the achievement of these ends, the author examines the international provisions for training, the relevant laws and regulations of Nigeria, the School of Fisheries already established in Nigeria and the general maritime training in the country. Using his experience of the training systems of some other countries, he then highlights the lessons to be learned and proposes possible solutions to the main problems identified.

PREFACE AND ACKNOWLEDGMENTS

Nigeria needs to seek a better future through self-reliance by proper, well organised and co-ordinated industrial policies. Although we are going through political turbulence, every successive government has embraced, in principle, with the same zeal, the technological emancipation of our country. My interest in the maritime industry and especially marine fishing industry, lies in the strong belief that, we can and should take care of this sector by ourselves within a specified period of time. A properly organised training of manpower, backed up by policies and objectives, that will promote self-reliance is one of the answers. However, the execution of this composite set-up must be in the hands of competent and willing patriots. Today's problem is lack of enough such competent patriots. In order not to live forever under this condition, in the rapidly developing economy, we must start to train our people today. The training of a man is like a conveyor system. In this case if we start loading the conveyor today, it takes about seven years for it to start delivering. This project tries to formulate a foundation for the national training of fishing boat navigators and engineers. It goes further, to incorporate the training into the proposed national maritime training structure, with a view to allowing flexibility in the industry - may it be fishery, home or international trade.

I do hope that this study will enable us to make fundamental reform of the present approach, in order that future generations, may judge us accordingly.

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CHAPTER 1 - INTRODUCTION

1.1 Background And Objectives

The historical, geographical and political nature of Nigeria demand the protection of fishermen, preservation of marine life and development of manpower for all types of maritime activities. Fishing is the traditional occupation of the inhabitants of the Coastal States. The United Nation Development Programms (UNDP)[1] and the Food and Agricultural Organisation (FAO)[2] have, in the past fifteen years or more, given the federal and state governments, various forms of technical assistance: one of which being the organisation and management of the Artisanal and Inshore small scale fishery. Production in this sector has improved but the gap between demand and supply has not appreciably followed. The demand for fish has increased considerably in the past few years, and presently stands at about 1.5 million tons.[3] This increase may be attributed to the rapid increase in the Nigerian population and to the drought in the northern part of Nigeria, where meat production has considerably decreased. The need for improved fishing by way of industrial (marine) fishing is undoubtedly a positive solution.

In an attempt to accomplish the programme of bridging the gap between demand and supply the Federal and State governments have supported the industry by way of subsidies, easy term loans, tax exemptions, etc. But quantifing the adequacy of food by its availability can be misleading. A survey conducted in this sector reveals that the industrial fish-landing in Nigeria is done by sea-fishing boats which are chartered in-partnership by Nigerians, manned and maintained by foreigners: the spare parts for maintenance being imported. Insurance and classification are also done outside Nigeria. In addition the smaller fishing boats, most of which are registered in Nigeria, are in almost all cases manned by foreigners. Under this situation, when every cost attracts foreign exchange, it might be cheaper for the Nation to import the fish-landing in this sector from say Denmark or Norway than continuing exploitation of the Nigerian Exclusive Economic Zone (EEZ).[4] According to

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1 and 2: Specialised bodies of the Unitied Nations Organisation.

3: A Quantitative Analysis of Food Requirements by S.O. Olayide and Co. Published by the Federal Dept.of Agriculture.

4: The text of the legislative provision is contained in Annex 1.

research conducted by Gulland in 1968, demersal fish in the Zone of West Africa (Gulf of Guinea Included) do not make long-range migrations along the coastline, therefore the resources could be conserved until Nigerians are ready to make policies, supported by the necessary infrastructure, for effective execution.

The industry covers a navigable area of 33,460 km^2 on the continental shelf and 2,600[5] km^2 of brackishwater, and also distant water fishing potential, stretching along the 776 km long coastline through the 200 miles of the EEZ. It is also possible through the Policy of ECOWAS (Economic Countries of West Africa) to obtain licences for wider and richer areas of the entire off-shore of West Africa. As previously mentioned, various state governments have invested a lot of money in trawlers without success, but a large number of private companies are successfully operating with foreigners at the helm of affairs, managing and manning the vessels. Twenty seven Nigerian companies own inshore fishing vessels totalling 11,000 GRT and 30 companies own distant sea fishing vessels totalling 165,000 GRT from ninty seven vessels as of the first of December 1983.[6] These companies, by law, must have 60% share holding by Nigerians. This is an indication of the sea-fishing activities going on, under licence in the country.

The Government, in realisation of the ever increasing demand for fish, set up the department of fisheries to administer, amongst other things, the school of fisheries which was founded in 1969. In the sixteen years since its inception no skipper has been produced. Research conducted in 1978 gave a modest estimate requirement of 120 skippers[7] by 1985.

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5. Resource Appraisal of Artisanal fisheries by G.W. Ssentongo and Ajayi (FAO and Institute of Oceanography).
6. Figure computed from data obtained from licencing office of the Nigerian Department of Fisheries.
7. Research conducted by Fadayomi and others of Nigerian Institute of Oceanography and Marine Research (NIOMR).

A look at the human resources shows that 2.2 million students enrolled in secondary schools while 47,000 enrolled in Technical (vocational) colleges in 1981/82[8] session - the latest available figures - (other than school of fisheries). Also worth mentioning is the 174 million Naira[9] financial allocation to this sector in the 1981-85 national development plan. However, most of the money has been spent in the development and organisation of the Artisanal and small scale fisheries.[10] But with the understanding of what industrial fishing can contribute to the future of Nigerians, a more positive step should be taken in the direction of a gradual but effective participation in this sector for posterity.

The education of Maritime personnel, like other types of education, is the building in the minds of people the broader understanding of the trade in which they are involved. It will afford individual self-reliance and promote national economic advantages in the trade on a World basis. Although it is accepted in principle that training is necessary, no apparent effect of all the efforts is forseable unless changes are made in the current process of training. This project will endevour to highlight the main problems inherent in the current process and suggest a workable system of training and general improvement of the industry.

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8. Figures obtained and published by the Nigerian Federal Ministry of Education.

9. The Nigerian (Naira) is approximately 1 U.S. dollar. Fig. by Chief Awotesu Monistry of State at 7th session of CECAF.

10. Development under the special body (NAFPP). National Accelerated fish production project.

1.2 Methodology

This project has been prepared using two methods of data collection. The first is descriptive, obtained by reference to books, literatures, newspapers and interviews. Interviews and discussions were carried out with personnel of the following offices; Federal Ministry of Agriculture, Department of Fisheries, the Nigerian Institutue of Oceanography and Marine Research (MIOMR), the School of Fishery, Federal Ministry of Education etc. - See Bibliography.

The other method was by using a questionaire to be answered by the Nigeria crew members of fishing vessels. This was discontinued after about 15 vessels because every vessel attended was manned by foreigners except the deckhands who were mostly employed on the vessels arrival at the landing jetties for manual discharge and transfer of fish pallets into waiting trucks. Further data were therefore extracted from my office, the Federal Ministry of Transport and Aviation Maritime Division, from the records of the survey and register.

The information obtained is them presented under various chapters and compared with the knowledge of other countries, bearing in mind the relevant International Convention provisions to formulate a scheme for Nigeria. This is presented in a form that should be suitable for our local conditions without attracting drastic financial commitments or infrastructural changes.

1.3 Scope

The project begins by presenting Nigeria as a coastal state, describing the geographical, historical and political nature. It discusses the existing fishing industry and endeavours to briefly describe the Government's participation in the trade.

Bearing in mind the capital intensive nature and risks involved in fishing vessels, the arm of Government that controls the safety, certification and manning of these vessels is described in detail. This area of the Government, Maritime Division of the Ministry of Transport and Aviation is substantially influenced by certain International Organisations (of which Nigeria is a member), therefore these organisations are also described.

Then coming to manpower development, the existing and future educational system of Nigeria is examined. The existing maritime training facilities, the process of examination certification and manning in the fishing industry are discussed, which then lead to the recommended, training systems, examination and certification, amendment to existing regulations and manning of fishing vessels. A recommendation for harmonising the various maritime training sectors is presented. The conclusions and recommendations summarises the inadequacies of the present system and suggests means of combating them with a view to presenting a better and more fruitful approach.

CHAPTER 2 - NIGERIA

2.1 Geographical

Nigeria is located in west Africa between the latitudes 4^0 17' N and 13^0 48' N; and longitudes 2^0 47' E and 14^0 27' E. Her neighbour to the west is the Republic of Benin, to the east is the Republic of Cameroon, to the north the Niger and Chad Republics and to the south is the Atlantic Ocean (Bight of Benin with a coastline of about 800 kilometers). The total area is about 356,670 square miles. It has numerous rivers but some of the major ones, like the River Niger which is about 900 kilometers long, enter the country through the Republic of Niger and flows into the Atlantic (Bight of Benin via a delta.) The other major river is the Benue which enters the country via the Republic of Cameroon and flows into the Niger at Lokoga (position about the centre of the country. See Figure 1.) Figure 1 shows the relative position of the rivers. To the north east of the country, a large fresh water lake is located (Lake Chad) which is also shared by the Chad Republic, the Cameroon and the Niger Republic, for this reason, it is administered by the Lake Chad Basin Commission made up by members from the four countries. There is also the manmade lake at the Kainji on the River Niger. Both lakes provide remarkable fresh water fishing grounds.

2.2 Historical

Nigeria in the sixteenth century had about 16 regions which were called empires or kingdoms. These kingdoms were relatively small and independent of one another. They fought each other but also traded between themselves. In the early nineteenth century the Islamic Fulani Empire united most of the northern and central kingdoms thus bringing the northern part under one Islamic doctrine. The southern part (south of the Niger and Benue) divided further into smaller kingdoms. During this period, the Europeans came to Nigeria and other west African countries, some to trade and some as religious missionaries. The British moved into southern Nigeria (near the coast) to protect their trade. In 1885 Europeans agreed to divide Africa. The boundry of modern Nigeria was drawn without consultation with the people and the chiefs even though they were ruling through the latter. As a result some ethnic groups

were divided between different countries. For example the Oyo indegenes are to be found in the present Nigeria and Republic of Benin. In several places the people resisted Europeans but were not strong enough to drive them out. Subsequently in 1900 a fixed boundary was established with the British and German influence. The latter were controlling a narrow eastern strip of the then modern Nigeria while Britain in 1914 developed a central government with three regional governments in the rest of the country. Many new things were introduced, amongst them were western education, the english language, river and land transport, (although crude native river transport and fishing existed), trade and banks. The British law system replaced most local laws. But Nigerians did not want to be ruled by foreigners and began to struggle for independence, which was achieved in 1960. The independent Nigeria was a federation of regions. Each region controlled its internal affairs and shared the national wealth. Unfortunately there was disagreement between the regions and various allegations of corruption against the central government which led to the military take over in 1966. In 1967 the regions were divided and the entire country became twelve states. This same year, Nigeria suffered a civil war which nearly split the country, but the central government eventually won in 1970. The "United Nigeria" then existed with its twelve states until 1976 when seven more states were created. In 1979, the military government then prepared a new constitution and conducted an election to place civilians in control of the affairs of the Nation. However in, 1983/84, on New Years Eve, the military took over power again due to the disgust of the general public in the corruption and incompetency of the government in power.

2.3 Political

Nigeria had a population of 55.6 million from the controversial report of the 1963 census. There were allegations of movement and arbitrary records of people in some areas of the country during the exercise, (revenue allocation is partly dependent on population). But in the absence of any other figure, this figure is used as a basis for the population of the country until today. It is assumed from statistical analysis that the growth rate is about 3% which means an annual increase of 1.3 million. Thus by 1985 the population is

estimated to be 96 million, this figure is also debatable. However, the number of persons per square mile varies considerably in different parts of the country, from under 100 persons per square mile in certain parts of the north to over 1,000 persons in the coastal states.

The country is divided into 19 states, namely Kano, Oyo, Sokoto, Kaduna, Imo, Benue, Gongola, Borno, Anambra, Kwara, Banchi, Plateau, Niger, Cross-River, Ondo, Bendel, Rivers, Ogun, and Lagos. The last six states share the Atlantic coastline in the following ratios, Cross River 105 km, Rivers 300 km, Bendel 96 km, Ogun and Ondo 95 km, and - Lagos state 180 km. However some of these states are blessed with estuaries and deltas which provide for subsistence and small scale traditional fishing, while some of the other states have lakes and rivers which provide similar fishing opportunities. Those six states share on the west of the coast the Bight of Benin and on the east the Bight of Bonny, both Bights being part of the Gulf of Guinea. Fishing on subsistence level has always been the tradition of some southern races in the country. In the delta area, for instance, houses have been built on stilts since the inception of mankind in the country (no actual date recorded). This particular race never knew any other means of feeding but fish and vegetables. Their only means of transpoit were rafts and dug-out canoes. In anycase some of these settlers are not linked by land. They believe so much in waters (Rivers, Seas, etc.) that it is a taboo if a newly born baby does not float when dropped into a river.

Similarly, in villages along rivers and lakes, fishing has always been the means of subsistence. The fishing was basically for the requirements of the family, therefore there was never any motivation for adèquate preservation. For this reason, this method of fishing created a measure of co-operation amongst neighbouring villages in settlements because of occassional excess catches.

2.4 The Early Fishing Methods

The people did not move too far away from their places of abode but they had means of sensing rich areas of the rivers and swamps for fishing. In order to get at these places, they needed dug-out canoes and rafts - in fact this practice is still going on in a good number of villages and settlements today. Dug-out canoes are used in sheltered swamps where the mongrove forest protects the water or in fresh calm but

deep waters. These boats were usually small varying in length from between four metres to ten metres. However in shallow streams and swamps, the fishermen just wade into the waters and set their traps. Various methods were employed by the fishermen to catch fish, ranging from the rather primitive, non-productive and labour intensive wounding gear, line fishing (line with hook), basket trap, fence trap to lift nets.

There are also various net fishing methods, which are more productive, and employed by the majority of fishermen from small family groups to large co-operative and industrial companies. However, the types of net used are also an indication of the industrial capacity of the group. A smaller group may employ simple, less productive falling gear nets while others may employ gill nets and beach seine nets which are similar to the modern industrial types. The overall perspective of the present fisheries would be incomplete without mentioning the existing infrastructure. Whether or not these infrastructural developments are adequately supported by manpower development is left to the judgement of the reader.

2.5 Existing Fisheries Infrastructure

The fishing industry must be considered as a composite unit made up of fishing gears, fishing grounds, fishing boats, fish binding jetties, fish storage facilities, fish distribution processes, fish preservation facilities, fishing boat repair facilities, boat builders, availability of spare parts and materials, and adequate manpower in all these areas.

All fishing gears are imported except the primitive single hand gears which are locally made by blacksmiths. Gears, ranging from twines, nets, floats etc. are not manufactured in Nigeria. As for fishing boats, there are registered boat builders at various locations on the coastal states. The following are examples of such companies:

1. The Nigerian Shipbuilder at Port Harcourt in Rivers State.
2. The Delta Boatyard at Warri in Bendel State.
3. Thermo Steel Nigeria Limited in Warri, Bendel State.
4. The Opobo Boatyard at Opobu also in Bendel State.
5. The Damens Boatyard in Lagos State.

6. The Port Marine Services in Lagos State.

7. The Dorman Long Nigeria in Lagos State.

Most of these companies engage mainly in repairs while few do construct steel dump barges and small open boats of less than 10 metres. There are other yards principally for repairs, such as the Federal Ministry of Transport Inland Water Ways in Warri, the Nigerian Ports Authority in Lagos and Burutu (Bendel State), and the Silver Anchor Nigeria limited in Lagos. However, a company called Almarine Nigeria Limited does manufacture GRP boats specifically for fishing purposes. This yard may be regarded as the only significant company supporting the fishing industry. There is also the Epe Boat Yard under the Lagos State Government. One of the objectives of the yard is the manufacture of steel and GRP fishing boats. We are yet to see if this yard will ever support this industry to any significant extent. Furthermore, under the co-operation of FAO, a workshop was built at Uta Ewa which mainly caters for the needs of outboard engines, but it is hoped that in future bigger inboard engines and trawler maintenance will be carried out.

The Federal Government, in its effort to promote this industry has developed, to varying stages, fishery centres in each of the coastal States at,

Lagos State - Yovoyan

Ogun State - Igbekki

Ondo State - Orieke Iwamimo

Bendel State - Ogeye

River State - Oyorokoto

Cross-River State - Uta-Ewa

They are designed to accommodate landing jetties, storage, repair workshops and depots for distribution. In addition many private fishing companies do have similar landing jetties. However, only about 10% of the total catch is sold on the open market as fresh fish, the rest are mainly smoked (less spoilage which is considered in the region of 30 to 40%). The distribution is channelled through "fish mammies" who are mostly wives and mothers of local or co-operative fishermen, except in bigger industrial companies which use refrigerated road vehicles to the hinterlands. In recent times some companies employ the use of drying

kilns developed by the industrial research institutes of the Federal Government. The existing manpower development is presently carried out in the following Federal Government institutions:

1. Federal fisheries school of the Department of Fisheries, Ministry of Agriculture, Victoria Island, Lagos.
2. Federal Fisheries School, in New Bussa.
3. Imo State College of Agriculture Umuagwo-Ohaji in Owerri.
4. Cross-River State School of Agriculture in Obubra.
5. Federal School of Fisheries Maiduguri.

The above named institutions offer various courses in fishery technology but (I) is the only institution offering marine courses. Further training is carried out at various fishery centres under the scheme of the extention services in co-operation with international organisations but limited to fishery technology as opposed to the marine training for which this project is all about.

Lagos State Government established a vocational fishermen training school at Yovoyem in Badagfry Division in 1980 to train the children of fishermen in modern fishing techniques. This training is however limited to a small scale fishing sector, operating in a co-operative system.

It will suffice at this stage to look into the fishing industry from the modern perspective in the next chapter.

CHAPTER 3 - THE NIGERIAN FISHING INDUSTRY

3.1 Introduction

The fishing industry of Nigeria is passing through an initial phase of transition over from the traditional to the modern methods of exploitation. The use of indigenous dug-out canoes, sails or paddle crafts and less effective gears (as mentioned in the previous chapter) is fast giving way to fishing with mechanised canoes, larger powered crafts employing more effective and sophisticated equipmnet such as echo sounders, radar, fish locating equipment, etc. In view of this rapid transition, it is necessary at this stage of the project to look into the grounds available for fishing, the structural pattern of the industry, the present rate of exploitation by way of the number and capacity of the vessels, the production relative to demand and finally the Government process of support and control of the industry.

3.2 Fishing Grounds of Nigeria

The available fishing grounds in Nigerian territorial waters can be divided into the continental shelf, brackishwater, rivers and fresh water lakes.

Figure 2 and Table 1 show the extent of the continental shelf which, as it follows the 40m deep contour, is considered as a fairly reliable boundary of the thermocline seperating the upper layer oceanic currents from the lower oceanic currents.

The thermocline tends to limit the extent of the distribution of the demersal fish stocks. The zone between the high water mark on shore and the 40m depth contour, running parallel to the coast at an average distance of 37km from the shore which contains the demersal resources that provide opportunities for the further development of the artisanal and coastal inshore fisheries. Considering the continental shelf, shown in Figure 2, and using the boundary to dictate the thermocline contour depth of 40m, this puts the coastline of the Cross-River State at 129km as against 105 km (chapter I). Hence the coastal inshore fishery of Cross-River operates in an area of about 4,700 km^2 (up to the 40m contour). The Niger Delta (River State Coastal area) the activities of the Artisanal Coastal Insohore fisheries cover an area of about 8,200 km^2 (based on the work of Scott 1966), for most of the Lagos, Ogun and Ondo States. The

continental shelf is narrower off Lagos State, the 40m depth contour marking the thermocline is located at a distance of 11 km (6NM) off-shore. Therefore the area available for most demersal stocks (located between the shore and thermocline) is about 1,800 km^2. The continental shelf area between the shoreline and about 10fath. (18m) contour is almost exclusively fished by the artisanal fishermen but both the artisanal and industrial fisheries exploit the continental shelf sector between 18M (10 fath) and 40 m (22 fath). Estimates of the continental shelf area for the sector with a depth range of (a) o-18m and (b) 18-91m for the coastal states are given in Table 2.

The brackishwater sector consists of estuaries, beach ridges, intertidal mangrove swamps, intersecting nontidal rivers and winding saline creeks. The exact area of the brackishwater sector for the entire Nigerian coastline is unknown except for the Niger Delta portion, which was estimated by Scott in 1966 in his research work that the permanent saline creeks form an area of 1,000 km^2, whereas the intertidal mangrove swamps comprise an area of about 5,048 km^2. Additionally, the intersecting rivers and estuaries plus beach-ridges comprises an area of about 679 km^2 and 688 km^2 respectively. Thus, the total brackishwater area for the Niger delta part is about 7,415 km^2. The inland extent of the mangrove swamp delimits the brackishwater area. The brackish water area of the coastal zone of Nigeria between the Benin River and Cross River has been measured in detail by Nduaguba (1983) and the various coastal sectors are shown in Table 3.

The relative position and length of the rivers are shown on Figure 1. However the territorial water of Nigeria is defined within the context of maritime law as 30 nautical miles from the low water mark on the coast or the sea-ward extent of the inland waters. This definition is useful for the purpose of jurisdiction in as far as the operation of fishermen are concerned, but may not, infact affect exploitation of the fish because the Economic Zone Act allows exploitation of fish (under license) to be as far as 200 Nautical Miles from the "base line" of the country - the base line is defined as the external limits of the territorial waters.[11] Figure 3 shows the location of the estuaries and major coastal settlements with good fishing prospects.

It will suffice at this stage to place in perspective the structural pattern of the industry which describes industrial Artisanal, inshore, coastal and brackish water fisheries.

3.3 Structural Pattern Of Nigerian Fisheries

The structure of Nigerian fisheries illustrated in Figure 4 can broadly be divided into two sectors: the Artisanal fishery and the Industrial fishery.

Artisanal fishery: can be subdivided into inland and lake fresh water fishing, and coastal and brackishwater fishing. The two modes make use of motorised, paddle and sail canoes, but in the more rural areas traps and other hand-gears are employed. The general characteristic of this rural sector is that it is made up of numerous fishing units and individuals all along the sea coasts, swamps, lagoons, deltas and fresh water streams. They are scattered and some are inaccessible in some seasons of the year. In such cases their production is subsistence or locally commercialised. It is also characterised by low yield per single unit, low earnings and being labour intensive. Operations are sometimes seasonal or on a part-time basis in which case they are combined with cash crop agriculture. This sector is assisted by the State and Federal Governments by way of loan; comfortable re-payment terms, distribution of gears and most importantly in the management and organisation of individuals into units or co-operatives. Table 4 shows the statistics for the number of canoes, motorised and non-motorised between 1971 to 1979 which are the lattest available figures. The Federal Government set up a body under the Department of Fisheries to take charge of the National Accelerated Fish Production Project (NAFPP). This body, in collaboration with the Food and Agricultural Organization (FAO) of the United Nations, has organised the fishermen into co-operatives and fish villages. Under this scheme it has become easy to allocate government subsidies, collect catches and educate the fishermen. For instance the subsidies donated by the Federal Government through this project between 1981 and 1983 were:

Canoes - 460
Outboard Engines - 613

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11. "Base line" Refer to The International Law Of The Sea.

Fishing Nets - 5,369
Indicator Buoys - 10,010
Plastic Floats - 23,750
Lead - sheets (Rolls) - 1,565
Twines (Spools) - 4,242
Hooks (Pieces) - 13,250

Similarly some State Governments have assisted to the same extent. For instance Lagos State between 1980 and 82 supplied:

Fishing Nets - 2,145 bundles
Twines - 25,000 (lbs)
Floats - 10,000 pieces
Outboard Engines - 900 of various sizes.

This exercise has awoken the morale of the fishermen in this sector. It has generated greater confidence in members of co-operative societies, so much so that freelance fishermen consider the job as highly lucrative. On the Government side, spoilage has reduced considerably, and production has risen to the extent that 65% of the total landings are from this sector. Another promising objective of this project (NAFPP) is the up-grading of small-scale artisanal fishermen into a modern trawling industry. To this end many fishermen associations have received larger (but imported) boats at half price. The Governments have also entered into contract with many countries to assist e.g. Poland, Japan etc. A total sum of 3.6 million Naira has been spent between 1979 and 1982 on these projects by the Federal Government while the States also have correspondingly high expenditures e.g. Lagos State spent 2.8 million Naira in 1980 on similar projects.

Industrial fisheries: can be sub-divided into, inshore trawling and distant water fishing. The former takes place between the continental shelf. Steaming time is not more than two days. The maximum size of boats that can be allowed to operate in the territoral waters are 83 ft. (25.3 metres) length overall (LOA) and a gross tonnage not more than 150 and if it is to operate for shrimping it should ideally not be above 76 ft. (LOA) with a gross tonnage not exceeding 100. There were 78 such vessels on license in 1983 for fishing while 41 were on license for shrimping. These are covered boats with inboard engines. In 1983 there were 192 such vessels on the Register but only 77 licenses could be accounted for. One

can only assume in theory that some of the registered vessels are out of service. However, of most importance is that at present there are 77 (6845.46 GRT) ships in this sector, which includes 26 vessels which are under license but not registered in Nigeria. Again one can only assume that these are chartered vessels operating within the territorial waters.

One of the criteria for operating or obtaining licenses in this sector is the evidence of effective distribution and/or storage, therefore most of the operators have facilities such as cold storage, refrigerated lorries, jetties etc. In some cases bigger companies take care of the landing of smaller ones. These vessels only go to sea for 2 or 3 days, the production is less labour intensive and the yield per unit effort is relatively very high although it is more capital intensive.

Table 5 shows the names of companies holding either deep sea or inland fishing and shrimping licences. This list has been computed from the list of license holders obtained from the Federal Department of Fisheries - Inspectorate Divisions and compared with the list of Registered Ships at the Ministry of Transport and Aviation (Inspectorate division). It will surfice to mention that companies owning Registered fishing boats but whose vessels were not listed by the Department of Fisheries in 1983 did not appear on the Table 5.

The shrimping, also attracts a similar infrastructural support and the vessels are relatively smaller. At present (1983 figures) the total number of licenses were for 41 vessels totalling 3,800 GRT. Nevertheless foreign earnings of over one million dollars on the export of shrimps in that year were also recorded. Most of the shrimps are exported. From Table 5 it appears that only about 8 ships in this sector are on charter that is not recorded as registered in Nigeria. The characteristic of this sector is similar to the counterpart - inland fishing. The banks usually support this industry just as they do for the distant water fishing.

Distant water fishing: This is fishing beyond the territorial waters. That is, fishing in the Exclusive Economic Zone of Nigeria (EEZ). Which is defined as 200 nautical miles into the sea from the seaward limit of inland waters, see Annex One for the text of the regulations on EEZ. This sector requires an even higher level of organisation, but productivity ie. catch per unit effort and income is generally higher. Which is also dependent on the efficiency of the management and skill and experience of the manning crew. There are 97 vessels on license

(ref. Table 5) in this sector totalling 164,750 GRT. None of these vessels are registered in Nigeria, although Nigerians should have 60% of the parent company by the indigenous decree. The production is this sector accounts for about 32% of the total annual landings (1982 figures released by the Department of Fisheries). The various productions of each sector will be discussed latter in this chapter.

3.4 Fish Production And Demand

The Federal and State Governments have gone into research of various kinds to estimate as accurately as possible the demand for fish by Nigerians. There were various contradictions in the conclusions of most of the research but for the purpose of this project an idea of the requirements will suffice. Nigerians are smaller in body wight compared with the FAO World average body weight by about 2 kg for both male and female. It is therefore estimated that an average Nigerian requires about 58.8 grms/day of protein and it is suggested that at least 7 grms/day of this should be from fish. This means that, if the population of Nigeria is 80 million then 2 million metric tons of fish are required disregarding spoilage. In the keynote address of the 2nd annual conference of the fisheries society of Nigeria, it was stated that the growth rate of food demand was 3.5 % per annum whereas Nigeria in her present condition fails to achieve 1% per annum. The country's import bill on food was estimated at 1.3 million Naira per annum. Although the situation has not changed very much, the fishing industry has improved and is still improving at least by the annual increase in the quantity of fish landings. Table 6, obtained from the Department of Fisheries, shows the relative increase between 1978 and 1982. It is noted that out of 756,387 metric tons of fish landed 244,408 are imported (that is deep sea fishing). However, at this rate of production, the price of fish, is high and apparently not easily accessible to the population at large. The minister of state for the Federal Ministry of Agriculture in his opening speech at the seventh session of the Fishery Committee for the Eastern Central Atlantic (CECAF) in 1981 confirmed the food demand growth rate and that 40% of animal protein consumed by the average Nigerian comes from fish. In fact the fishing industry recorded the fastest growth rate in the relative contributions made by various agricultural sub-sectors to the gross domestic product (GDP). The Government gave priority to the fishing industry and, in the 4th National development plan 1981-85 a capital outlay of 174 million Naira was earmarked for the fisheries sub-sector. The then proposed Federal Government programme (fishery) accounted for 87.3 million

Naira while the balance was made up for projects executed by the states and local government. The Federal Government, in its endevour to meet the demand for fish has taken the following steps amongst others:

1. Placement of an order for 45 medium size trawlers from a Polish shipyard under the Nigeria - Poland agreement. 36 of the trawlers were allocated to various fishermen cooperative societies in 1983.

2. Fishing terminals for fish landing storage, processing and distribution as well as maintenance and repairs of fishing crafts. There are three of these terminals under construction while one is completed. They are located at Ebughu (Cross River State), at Igbokuda (Ondo State) and Borokiki (River State) all at a total cost of about 26 million Naira.

3. A fishing habour complex is also being constructed in Lagos State which caters for marine inshore and distant sea-fishing.

4. Co-operation with UNDP/FAO development projects have established three Federal Fisheries extention units at Uta-Ewa (Cross River State), Benin in Bendel State and Epe in Lagos State. The activities of these projects are chanelled through the State Governments in each of the coastal states.

Although a lot of efforts are being made by the various governments to meet the demand and basic infrastructural requirements, nevertheless, there is no plan or strategy for the future exploitation of the fishing grounds by Nigerians.

The marine fishing, presently under absolute exploitation by foreigners is operated on a partnership basis with Nigerians. These Nigerian companies, see Table 5, must fulfill certain conditions and interact with certain governmental bodies. The interactions are made either in the registration of the company, employment of foreigners, importation or exportation of fish or equipment, registration of fishing vessels, certification of vessels etc. It will therefore be necessary for this project to briefly describe the various related ministries in the industry.

3.5 Associated Ministries In The Fishing Industry

The following ministries are connected directly or indirectly with the industry.

1. The Federal Ministry of Agriculture.
2. The Federal Ministry of Education Science and Technology.
3. The Federal Ministry of Trade and Commerce.
4. The Federal Ministry of Internal Affairs.
5. The Federal Ministry of Finance and
6. The Federal Ministry of Transport and Aviation.

1. The Federal Ministry of Agriculture.

The department of fisheries of this ministry is responsible for advising the Federal Government on policies relating to the development of fisheries and the fishing industry in Nigeria. It was established in 1976. The activities of the department cover fisheries planning, statistics and data collection, implementation of fisheries development programmes, enforcement of fishing regulations, licencing of fishing vessels for the exploitation of fish and the National co-ordination of fisheries development. It also issues fishing licences in accordance with the provisions of the sea fisheries (licensing) regulation of 1971.

2. The Federal Ministry of Science and Technology

All research instiutes are under this ministry including the Nigerian Institute of Oceanography and Marine Research (NIOMR) which is responsible for the identification, publication and consultation on all aspects of the Nigerian resources of the seabed and marine environment. It also offers research into the utilization of such resources which otherwise could be wasted. It provides educational facilities for the research and exploitation of marine resources apart from oil. The Lake Chad Research Institute and the Institute of Industrial Research also under this ministry contribute to the fishing industry by various designs of drying kilns and different methods of fish preservation. The Federal Fisheries School, originally under the Department of Fisheries, was transfered to this ministry at its inception.

3. The Ministry of Trade And Commerce

This ministry is responsible for the registration of companies, including fishing companies. The certificate of registry is one of the requirements in most of the transactions with any other ministry. It also issues import and export licenses. The offices are located, like other Federal Ministries in all the 19 states of the country. The Lagos secretariate of the ministry is responsible for the co-ordination of all the other offices.

4. The Federal Ministry of Internal Affairs

This ministry, amongst other functions is responsible for the policies and collection of internal revenues. It is a law in Nigeria that all personal and company transactions involving foreign exchange must be accompanied by evidence of payment of due taxes. It is therefore obligatory for all fishing companies within the scope of this project to pay taxes to this ministry because:

(a) The company may wish to purchase or charter a fishing boat.

(b) The company may wish to export shrimps - or import fish.

(c) The company may wish to import spare parts, foreign technical assistance as is usually the case.

(d) The company may wish to purchase any property within Nigeria that involves government approval.

5. The Federal Ministry of Finance

This is the ministry which administers the affairs of the Central Bank. All requirements on foreign exchange go through this ministry. Transactions regarding the purchase and charter of fishing vessels must pass through this ministry. Such transactions must be accompanied by:

(a) Evidence of regular payments of tax.

(b) Certificate of registration of company.

(c) If chartered, a copy of charterparty.

(d) A copy of the feasibility study, is proof of requirements of the venture, the method of distribution, preservation or marketing, That is, a report on the study that such money, on request, is necessary for the benefit of the people of Nigeria (in accordance with policies) and that commodities thus obtained will get to them without feasible wastage.

(e) If the transaction involves a charter party or purchase for operation within the territorial or Exclusive Economic Zone of Nigeria, then a clearance will be required from the Maritime Safety Administration division of the Federal Ministry of Transport and Aviation. This division will, as part of its routine, check the authenticity of the above named documents and relevant certificates of the ship to ensure compliance with both the international and most importantly the national regulations.

6. The Federal Ministry of Transport and Aviation

This ministry co-ordinates and administers the affairs of the following government fully owned corporations.

1. Nigerian National Shipping line Limited.
2. The Nigerian Ports Authority.
3. The Nigerian Airways Limited.
4. The Nigerian Airport Authority.
5. The Nigerian Central Water Coporation.
6. The National Cargo Handling LTD.

Apart from overseeing these companies it has within its structure the following divisions:

a. The Government Coastal Agencies.

b. The Shippers Council.

c. The Nigerian Inland Waterways.

d. The Maritime Division otherwise called Maritime Safety Administration in this project.

e. The Nigerian Nautical College Administration.

The Nigerian Ports Authority administers the entire coast of Nigeria and the ownership is vested in it by Nigerian laws. It is therefore responsible for the provision of fishing jetties and land for distribution as the case may be.

The Maritime division or the government inspector of shipping, or in this text the Maritime Safety Administration, is responsible for the registration of fishing vessels and the examination and certification of the personnel running the vessels. It also ensures the safety of the vessels and issues certificates of compliance with the regulations regarding such safety measures.

In view of the important role this division plays in the control, manning, certification of ships and personnel serving on them, the next chapter will discuss in full the part played by this division in the industry.

CHAPTER 4 - THE MARITIME SAFETY ADMINISTRATION OF NIGERIA

This statutory division of the Federal Ministry of Transport and Aviation, usually called 'GIS division' [12] is a government establishment with its head office in Lagos within the ministerial complex. It has four regional offices in the major ports of Nigeria, at Calabar, Port Harcourt, Warri and Lagos. It is hoped that each regional office will be controlled by a chief surveyor but presently, due to lack of manpower there are senior and principal surveyors managing in different offices. The statutory functions of this division within the context of this project are described as follows:

4.1 Functions

The Merchant Shipping Act of 1962 confered in the minister of the Ministry of Transport and Aviation inter alia the following functions:

1. To grant certificates of competency to operators of ships or crafts. This includes skipper (fishing), mate, coxswain, motorman grades I and II (fishing) third class engineer, engineer assistant etc.

2. To issue permits in lieu of certificate of competency under prescribed conditions.

3. To designate times and places of examinations for certificate of competency.

4. To order Boards of Inquiry into allegations made against holders of the certificate of competency and to cancel or suspend a certificate of competency.

5. To receive and approve plans and specifications of new vessels intended to be registered in Nigeria.

6. To order the detention of vessels whose plans and specifications have not been approved.

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12. GIS - Government Inspector os Shipping.

7. To give directives and to receive declarations of surveyors of vessels.

8. To grant permits for ships/vessels to clear Nigerian waters.

9. To issue duplicate certificates of survey and various other certificates of safety as the case may be, including exemption certificates.

10. To issue Radio Certificates.

11. To issue the certificate of construction (hull, machinery and equipments) to any Nigerian ship over 25 GRT.

12. To receive written notice of any alterations made on a Nigerian ship holding a certificate of construction.

13. To issue notices of concellation of any certificate issued under his authority.

14. To order detention of a ship not carrying a valid certificate, exemption or valid endorsement - as the case may be.

15. To approve the forms which vessel stability information shall take.

16. To issue permits for fishing boats to carry passengers in certain circumstances.

17. To direct surveyors for the detention of ships/vessels found deficient in collision regulations, e.g. lights, shapes, sound, etc.

18. To order signal stations and radio stations to transmit distress signals.

19. To detain or relaese unseaworthy or unsafe ships.

20. To order inquiries into the conditions of the anchors and cables of vessels.

21. To detain ships if evidence of ownership is not or cannot be produced.

22. To recognise persons who may be termed shipbuilders.

23. To approve a provisional certificate of the registry of a ship, which in a foreign country, becomes Nigerian owned.

24. To consent to certificates of sale of a ship.

25. To have reports of inquiry into causes of death onboard ship.

The above 25 enlisted functions are the main parts of the provision of the Act which are considered to be directly or indirectly related to the fishing craft/operation in Nigerian waters.

However in the 'Merchant Shipping Act (delegation of powers) notice of 1963, the Minister of Transport delegated all the powers, the Act confered in him, to the Government Inspector of Shipping (GIS), who is the administrative head of the Maritime Safety Administration. This delegation of power was done inaccordance with part XIII - supplement to the Act of 1962, chapter 91, section 414 (2).

Having described the functions and delegation of authority to the executors, the most important aspect of the policy is therefore the subsidiary legislation (or regulations of ordinances).

4.2 Subsidiary Maritime Legislations

Inorder that the aforementioned functions may be carried out within the framework of the laws of the country, chapter 98 of the 1962 Shipping Act provides that the Minister may make regulations generally for carrying the Act of 1962 into effect. It went further by stipulating that such regulations may provide, inter alia, for the following:

1. Anything which is required to be, or may be prescribed under the Act of 1962.

2. The manning and survey of fishing vessels.

3. The operation of Schools of Navigation.

4. The control of vessels operating within Nigeria - (except National or Foreign Naval vessels) for which the Minister is satisfied that no other adequate provision has been made in the Act of 1962, or by any other written law, which has been generally exempted from the provisions of the Act.

5. The classifiction of coastal trade and inland watership, either in relationship to the seaworthiness of such ships or the manning thereof, restricting the area within which any class of such ships may ply.

6. Fees including stamp duty and other charges.

7. The prevention of oil pollution of navigable waters.

8. The construction of ships' gangways.

9. The prohibition or restrictions of Navigation in any waters over which the government of the Federation has control.

In compliance with the provisions of 4.2 above and in virtue of 4.1 (the statutory functions) delegated to the Maritime Safety Administration, many regulations were made amongst which the following directly or indirectly affect fishing vessels (not small power driven craft- PDSC)13 and their operations.

10. The Sea-fisheries Act of 1971.

11. The Sea Fisheries (licensing) Regulations of 1971.

12. The Sea Fisheries (fishing) Regulations of 1972.

13. The Merchant Shipping (ships name) Rules of 1963.

14. The Merchant Shipping (fishing boat) Regulations of 1963.

15. The Merchant Shipping (examination for certificate of competency (fishing) Regulations of 1964.

16. The Merchant Shipping (life-saving appliances) Rules of 1967.

17. The Merchant Shipping (fire appliances) Rules of 1967.

18. Merchant Shipping (collision) Rules of 1974.

19. The Merchant Shipping (signals of distress) Rules of 1963.

20. The Merchant Shipping (Navigation Warning) Rules of 1967.

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13. PDSC - Small crafts driven by one or more outboard engines eachone not more than 30hp.

21. The Merchant Shipping (radio) (fishing boat) Rules of 1967.

22. The Merchant Shipping (navigation of inland waters) Regulation of 1963.

23. The Merchant Shipping (medical scales) Regulation of 1964.

24. The Merchant Shipping (fees) Regulations of 1979.

25. The Merchant Shipping (tonnage) Regulations of 1970.

There are other regulations which need to be noted but are completely outside the control of the Maritime Safety Administration. These are:

26. The Territorial Waters Act of 1967.

27. The Territorial Waters (amendment) Act of 1971.

28. The Exclusive Economic Zone (EEZ) Act of 1978.

The most relevant texts of these regulations are attached under Appendix 1.

Although some of these regulations may require minor amendments, I am proud to say that Nigeria is not far behind promulgating alongside the world standard, except in areas of implementation.

The operational activities of fishing boats or fish factories afloat are similar but more strenuous than ships carrying goods from A to B, in that,operations require a test of stability of the ship in various weather conditions. Bearing in mind that these vessels take their deadweight at sea, the requirement for better stability of these class of vessels in construction and equipment is a firm recommendation.

In addition and most importantly the crew must be specially trained and certified for the environment in which they are supposed to perform. In view of the importance of these factors to the safety of the ship, its crew and protection of the environment, and that International Conventions, codes and regulations only refer to ships in international waters, the influence on National Legislation and Regulations is worth discussing.

4.3 International Influence On Marine Fishing

International Conventions, codes and resolutions affect vessels in international waters. The compliance of vessels to these International Regulations is a reflection of the legislative provisions of their flag state. There has never been controversy between flag states on issues of effecient performance of ships in a safe and clean environment. States will accept international minimum practical standards and adapt them down the scale for territorial benefits. The constraints are usually in the areas of application or implementation due to manpower and management.

This project is based on the human element, which has been established as the cause of up to 80% of the accidents and disasters in maritime history. Obviously a solution to this problem will be welcomed by all Flag States but it usually poses a problem in international circles. It is normal to imagine that in an International Conference questions such as the following must be answered for any progress to be achieved:

1. What should be the minimum training for a skipper, motorman coxswain and for what size of ship?
2. What should be the criteria for the size of vessel?
3. What should be the qualification of personnel entering training?
4. What should be the manning scale?
5. How should various types of fishing vessels be categorised?
6. With technological advancement, should there be further training for qualified personnel or time limit on certificates?
7. Etc.

However, human factors in this context go beyond vessel handling. Also involved are equipment design, environmental influence, labour movement, and the general demand for fish (food) production. It should be considered that situation on board the vessel is quite different from other industries as mentioned earlier. A vessel at sea is a relatively independent, - periodically continous community - that constitutes a socio-technical system with rather unusual characteristics. A specific human problem may cause complete disaster - due to 'simple' error in judgement, incompetency,

general inadequacy such as safety gear, bad equipment design, etc. This situation must be given its due international and national attention. It was stated by J.P. Cashman (manager of Shipping Information Services Lloyd's Register of Shipping) that losses of fishing vessels registered with Lloyd's increased alarmingly between 1967 and 1975 with 339 ships foundering and 232 wrecked out of a total of 763. Fire accounted for another 140 vessels and this must be a worrying hazard for fishermen all over the World.

It is because of the aforementioned facts that all Nations (Flag States) must embrace the various United Nations specialised agencies and organizations, set up to alleviate these problems. Regulations and ordinances are based and guided by minimum standards concluded by these bodies.

It is realised that a good percentage of the fishing vessels and operations are within the judicial control of various states, nevertheless deep sea fishing has attracted world attention. The United Nations in its wisdom, created specialised bodies under the control of the Economic and Social Council. The following organs and agencies thus created have influence on the fishing industry:

1. International Maritime Organisation
   (IMO)

2. Food and Agricultural Organisation
   (FAO)

3. International Labour Organisation
   (ILO)

4. United Nation Environmental Protection
   (UNEP)

5. International Telecommunication Union
   (ITU)

6. World Meterological Organisation
   (WMO)

7. United Nation Development Programme
   (UNDP)

The main charter of the IMO is to provide all necessary assistance for the promotion of safety at sea and the protection of the marine environment from pollution by ships or crafts. Inorder to fulfill this charter, it co-operates with some other agencies and organs whose charters are also involved in the industry. Some of the areas of co-operation are:

1. ILO/IMO, in areas of training, certification and manning.

2. UNEP/IMO, in areas of pollution prevention of the sea.

3. FAO/IMO, in matters concerning construction equipment and the safety requirements of fishing vessels.

4. ITU/IMO, in matters concerning, telecommunication equipment onboard vessels.

5. WMO/IMO, in matters of ship safety requirements for constructional and equipment to withstand variously envisaged meterological conditions.

6. UNDP/IMO in areas of implementation of transfer and co-operation of technical assistance to developing countries.

UNEP and UNDP are organs of the United Nation as opposed to other organisations which are specialised agencies reporting via the economic and social council.

In view of the role played by the IMO in the shipping industry and especially in the fishing industry and bearing in mind the scope of this project, a brief description of the organisation will suffice.

4.4 International Maritime Organisation

The organisation was established by the United Nations Maritime Conference held in Geneva in 1948. In 1958 the organisation came into being as the only United Nations specialised agency solely concerned with maritime affairs. It was christened, Inter Governmental Maritime Consultative Organisation (IMCO) until the conference of 1975 when amendments to the organisation convention were made and came into force in 1982. The main objective of IMO is to facilitate co-operation among governments in technical matters of all kinds affecting shipping, inorder to achieve

the highest practicable standards of maritime safety and efficiency of navigation. The organisation also provides technical assistance to developing countries in its sphere of responsibility. However, since 1967 it has given special.emphasis to the question of prevention of pollution of the sea by ships and to legal matters associated with its technical work.

The activities of this organisation in the facilitation of uniform International minimum standards for the safety of life and clean environment is achieved by the preparation of draft conventions that are adopted by specially convened conferences, the drafting of codes, recommendations and guidelines. In its endeavours, matters such as the following are on record and enforced in some cases; routeing of ships, radiocommunication, life saving appliances, standards of training and watchkeeping, safe construction of all kinds of ship/vessel working in the marine environment, subdivision stability, load lines and fire protection requirements for fishing vessels. Minimum standards set by countries who are members of the organisation and are signatory to such standards are the only countries obliged to use such standards (since this may be in their national regulations).

As the majority of maritime and coastal states of the world are members of the organisation, it therefore becomes imperative that the opinion of this organisation on any matter involving the technical aspects of shipping must be sought. (In this case the training of manpower in marine fishing.) Certainly guidelines, resolutions and conventions are available in this area. Although the work of the organisation is based on international trade, it is common for countries to use such International Recommendations as a reference, and with some relaxation formulate national laws or regulations which will apply to domestic trade.

Therefore, IMO in its endeavour to comply with its charter in respect of the safety at sea for fishing vessels convened a conference in March 1977 for the purpose of adopting an International Convention on this subject, bearing in mind that the then existing International Conventions for the safety of life at sea and load line exempt fishing vessels. The step was a major one in the fishing industry and confined itself to agreeing on common uniform principles and rules for the design, construction and equipment of fishing vessels inorder to facilitate safety of such vessels and their crew. (Nigeria was represented at that conference).

This convention restricted its application to vessels above 24 metres. But since very many fishing vessels fall below this limit, a similar code in principles for vessels below 24 metres but above 12 metres was adopted in 1979 by the combined efforts of FAO, IMO and ILO. This document was circulated to governments as recommendation for voluntary inclusion into the National legislation if so desired. The effect of these International Conventions, codes and recommendations on the industry is discussed in the next sub-chapter.

4.5 International Conventions, Codes And Recommendations For Marine Fisheries

The existence of these International provisions and the gradual development of same are important factors to be borne in mind by whoever is responsible for the training and development of manpower in sea-fishery industry. The final development of the Terremolinos International Convention for the Safety of Fishing Vessels (Torrenmolinos) and the voluntary guide-lines for the design, construction and equipment of small fishing vessels (the code) mentioned in the previous sub-chapter were arrived at from various huddles encountered in recommendations, resolutions and codes entrenched in ordinary shipping conventions, such as:

- Recommendation 4 of SOLAS 1960
- Recommendation 7 of SOLAS 1960
- Recommendation 39 of SOLAS 1960
- Recommendation 3 of Load line 1966

The application of rules on fishing vessels vis a vis ordinary merchant vessels became exceptionally difficult for two main reasons:

1. They do not normally call at foreign ports, therefore the control of whatever International agreements on standard of construction, equipment and manning will be an absolute responsibility of the Flag State.

2. The vessels load at sea, therefore application of load line requirements cannot be effectively controlled. It is unlikely that a fisherman will dump a valuable catch only because he has submerged the load line by a few millimeters. If a skipper is willing the crew may dump him along with the catch!

In view of these and other reasons Torremolinos adopted in 1977 has not come into force and unless the conditions are changed, it is not likely

to come into force. However, most countries do not worry so much about its International status because its provisions are entrenched in the National Regulations and applied as if it were in force. The provisions of this Convention and its counterpart for smaller vessels mentioned also in the previous sub-chapter are outside the scope of this project, but a substantial part of it, is the knowledge requirements of skippers and engineers who may wish to take charge of larger fishing vessels.

Although the knowledge requirements of officers incharge of the fishing vessels are implied in the text of this convention, recommendation 8 of attachment 4 urges the Organisation, FAO and ILO that, from the point of view of safety of life at sea, training and certification of personnel on fishing vessels be given serious consideration. In view of this, resolution A 539 (13), adopted in November 17, 1983, provides in specific terms the requirements for the certification of skippers and officers in charge of the navigational watch on fishing vessels of 24 metres in length and over. This requirement is used by most administrations to vessels shorter than the 24 metres prescribed with certain relaxations. The text is attached as Appendix 2. Furthermore in response to recommendation 39 of 'SOLAS 1960' we find resolution A 484 which provides for the basic principles to be observed in keepeing a navigational watch on board fishing vessels. This provision applies to the full range of fishing vessels and an important reference for whoever has the task of training to provide manpower in the industry. The text is attached as Appendix 3 to this project.

4.6 Nigerian Obligations

Although Nigeria has not ratified the Torremolinos Convention there are other conventions which Nigeria has ratified and is therefore obliged to implement. In implementing these conventions other National regulations are directly or indirectly affected and must be scaled down in proportion. The following related Conventions have so far been ratified:

1. The Safety of Life at Sea 1960 which came into force in May 1965.

2. The Safety of Life at Sea 1974 and protocol of 1978 which came into force in May 1980.

3. The Prevention of Collision at Sea Regulation of 1960 and 1972 which came into force in July 1965 and July 1977 respectively.

4. The Prevention of Pollution at Sea by Oil 1954 which came into force in July 1958.

5. The International Convention on Load Lines which came into force in 1968.

6. The International Convention on the Standard of Training, Certification and Watchkeeping which came into force for Nigeria in Feruary 1985.

The ratification and adoption of these conventions as earlier mentioned makes it obligatory that all the powers invested in the Minister of Transport, which were delegated to the Maritime Safety Administration (GIS), must be exercised in order to put into effect the spirit of the conventions. The summary of these obligations, bearing in mind the aforementioned available instrument are:

1. The minimum requirements of these conventions must be introduced into the National rules and regulations. Appendix 1 shows the extent the present National regulations fulfill this obligation.

2. There must be adequately trained personnel to give a proper interpretation of the provisions of the conventions.

3. The trained personnel must also be competent enough to administer such provisions existing in National legislations which are adapted to local conditons.

4. All regulations must be followed up by the necessary infrastructural requirements to effect implemetation. However, certain regulations may fit into the existing infrastructure. This infrastructure may include, adequate number of personnel, equipment, documentation e.g. forms certificates, circulars, information etc.

5. Further obligations are entrenched in the functions of the Government Inspector of Shipping who was mentioned earlier.

It is obvious from the aforementioned obligations why legislative responsibility lies on the shoulders of the Government Inspector of Shipping. Amongst other things he must, for the safety of life and property and maintenance of clean seas ensure that:

1. All ships registered in Nigeria comply with National regulations, both in design, construction, equipment and manning.

2. All ships entering or operating in Nigerian ports are seaworthy.

3. Adequate training is provided for operators of all ships registered in Nigeria and that these are duly certified.

4. Ships are maintained to such an extent that they can perform their duties without imposing danger on one another.

5. All ships within Nigerian territorial waters are adequately manned.

6. All persons engaged in transportation or operation in marine environments are aware of the requirements for safety and their responsibility towards the maintenance of the marine environment.

Thus it is obvious that Nigeria is bound to train, and train properly, personnel to man her vessels in accordance with her International and National obligations.

CHAPTER 5 - EDUCATION AND TRAINING

5.1 The Education System in Nigeria

The National Education Policy was revised in 1981 but many States have financial constraints that make it difficult to implement. It will therefore be necessary to describe, in this project, both the old and the new system: The old system can be divided into 3 basic phases. The first phase (primary education) starts at the age of six years for a period of six years. The student then obtains a First School Leaving Certificate. However, in urban areas parents may send their children to nursery schools (pre-primary education) at the age of three years - if they can afford it. Furthermeore certain clever students may not complete the six years of primary school (phase 1). The common entrance examination to phase 2 which is the five year secondary school is opened to the fifth year and final students of phase 1. The common entrance examination is carried out at a National level and handled by the West African Examination Council. On completion of five years. All students sit the common examination for the award of the West African School Certificate in their chosen subjects, usually a minimum of six subjects. The certificate obtained is equivalent on a subject per subject basis to the British General Certificate of Education Ordinary level (GCE 'O' L). On completion of secondary (phase 2) education, students may enter a two year course leading to the higher school certificate equivalent to the British GCE 'A' level or sit a direct entry examination into the University, successful students will spend four years to obtaining a first degree (phase 3) whereas a student who goes through the higher school certificate and obtains good passes in relevant subjects will spend only three years on the first degree on entering university. However, students who cannot achieve admission into the University will either obtain admission, also by examination, to technical college, polytechnic, teacher training college anyother vocational institution or will enter the labour market. This policy could be described basically as a 6-5-4 system.[14]

The 1981 National policy advocates a 6-3-3-4 system : Six years of primary school, three years junior secondary, then another 3 years of senior secondary and finally four years of University for competent students. The division to technical or vocational studies will be done

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14. The system is illustrated by Figure 5

after the junior secondary stage. This means that all secondary schools will be operating as comprehensive schools.[15] This system has also eliminated irregularities in the ways students enter the secondary school in the fifth year of primary education and abolishes the option of the two year higher school certificate. However, because of the expensive nature of comprehensive schools most states eventhough they accept the policy in principle cannot afford to implement it yet. However the new policy is orientated towards the fulfilment of the socio-economic and political needs of the country. The government is relentless in its efforts to provide opportunity to every citizen to attain the level of literacy that will assist the nation in its fast growing industrial development. To buttress this desire is the amount of revenue allocation to this sector in the third national development plan which was 3.2 billion Naira. Reference to Table 7 shows the various government expenditures during the years 1981 to 1985. Table 8 and 9 show the number of enrolments of students in primary schools and secondary schools for the specified periods. It will be seen that enrolment prior to the third development plan was significantly low, this was due to government realisation of the gross inadequacy of manpower in the fast growing economic situation in which the country has found itself as a result of the exploration and exploitation of oil. A lot of money was put into education a new infrastructure developed and parents were encouraged to send their children to school. A survey was also conducted, prior to 1974, into the manpower situation in the country. It was realised that about 50,000 people were at a senior manpower level (university degree holders) 150,000 in the intermediate category, that is holding the School Certificate or just above that level, while 300,000 were in the skilled labour group. The last group is the primary school graduates with just a few years of craft practice.

In a country with a population of over 70 million at the time of the survey, these figures were ridiculously low and seriously affected the economic growth of the nation. It is, in this same vain one should look at the situation in the maritime field and most especially the fishing industry. Table 10 shows the enrolment trend for Technical colleges and universities which does not include maritime studies. It was not until 1969 when the school of fisheries was founded by the Department of Fisheries of the Federal Ministry of Education that a formal training in this field started in the country. By 1975 it remained the only training school and was therefore mandated by the National Fisheries Development Committee (NFDC) to, amongst other things, train fishing skippers and marine engineers

for fishing vessels. In this same year the Nigerian Institute for Oceanography and marine research (NIOMR) was established by decree 35. This school then became an arm of the Institute.

The training of skippers and marine engineers to man fishing vessels is principally maritime training and there is an acceptably recognised manner of training in this sector. For the benefit of those involved, the principle is described in the next sub-chapter.

5.2 Maritime Training

This training is geared towards an assessible level of competency. Competency in this sector is a measure of knowledge, understanding, skill and experience. Examinations are therefore based on these 4 components in-order that an officer placed incharge of a ship, at the end of his education and training is competent enough to be responsible for its safe, efficient operation and maintenance with the minimum effect on the environment. The issuance of a certificate by an authorised arm of the government is a legal proclamation of the person concerned that he is capable of meeting the responsibilities prescribed.

For the purpose of achieving this level of competency, National regulations for the various knowledge requirements are set out in line with International Standards and must be taught in an organised manner. Coupled with the theoretical educational aspect is the sea-training component (on-the-job training). This component is an important aspect of the training. It should be seen as an extention of the education of the land-based training centre. For this reason, it is important that there is effective and close co-ordination and co-operation between the personnel aboard the ship and the training centre ashore. It has been proved by many countries (America, Norway, etc.) that a training ship (vessel) is ideal, apart from achieving the above conditions, situations can be simulated.

It is the evidence of effective sea-training coupled with sound, well-tailored and technologically updated knowledge and skills make up requirements for maritime training. The facilities and resources required for this training are dealt with in a seperate chapter.

5.3 The Federal Fisheries School (FFS)

5.3.1 Background

Fishing was first organised by the 'colonial masters' in 1942. The first attempt in 1946-50 to start a fishery school collapsed for reasons which can only be explained by those who initiated it. Since then, until 1969, no formal training school was established. Any form of training was carried out on an individual, or private company basis. In the government sector training has been on-the-job with all its attendant problems. As far as navigators and marine engineers are concerned in this industry, training, as described, was done outside the country mainly in Ghana (another West African country). Infact the 1972 report of the National Fisheries Development Committee (NFDC), sub-committee on manpower development and training, approved, amongst other things, that training in Ghana should continue until such a time as FFS can meet the demand of manpower in the sector. I should admit at this point that meeting the demand in this sector under the present set-up, is a wishful dream. The UNDP, FAO and recently the government of Japan have been very active in the development of the school, both regarding personnel and materials but particularly with regard to resources.

5.3.2 Status and Objectives

The school is an arm of the Nigerian Institute for Oceanography and Marine Research Lagos (NIOMR), and controlled by the Department of Fisheries, Federal Ministry of Agriculture. As a matter of fact all the three establishments share what may be called the same premeises. The school section covers an area of 6,500 sq. metres. Presently there are 17 full-time lecturers and 9 part-time. Other facilities and equipment include:

1. Two blocks of hostels for the accommodation of about 200 students.

2. An adequate canteen for students and lecturers.

3. The school premises, made up of three blocks which contain classrooms, two science laboratories, engineering workshop, electronics laboratory, navigation room, refrigeration room, basic workshop and staff offices.

4. Three blocks for the accommodation of junior staff.

5. A block of flats for eight junior staff.

6. Demonstration fish pond

7. Three training vessels:
   The 'Federal Argonant' 24 metres
   The 'MV Okion' 32 metres
   The 'Polartune' 36 metres.

In the fourth National development plan 87.33 million Nairra was allocated to agriculture while 18.23 million was earmarked for fishery research and 2.3 million Naira to the Federal Fisheries School sector.

One of the main objectives of the school is, "To meet identified needs of the country in the middle level manpower cadre in fisheries development". I do hope this project will assist in identifying the manpower needs of the Marine Inshore and possibly distant fishing in as far as navigators and marine engineers are concerned. Another quotation from the Federal Fisheries School (NIOMR) philosopy and objectives published in September 1983 is "Nigeria's inshore fishing industry, which had been controlled by expatriate personnel, started improving and the need to involve young officers who would replace the expatriates was felt. The FFS was accordingly mandated to: train intermediate level fishing skippers and marine engineers."[15] How far this has been achieved in proportion to the growth of the industry will be analysed later in this project, bearing in mind the allocation of money and the international support this sector is enjoying.

The following courses have so far been established in the school:

I Fisheries proficiency certificates
II Coxswain
III Motorman Grade II
IV Mate fishing.
V Ordinary National Diploma OND (fisheries).

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15. Quotation from FFS handbook of February 1982.

Further information on the details of the syllabus and enrolment requirements are contained in Appendix 5A and 5B.

Since the inception of the school the following graduates have obtained certificates:[16]

Mates - 119
Coxswain - 129
Motorman Grade II - 49

5.3.3 Existing Teaching Staff

Like most of the specialised training institutions of the country, lack of properly trained instructors is a general phenomenon. However, it is assumed that the FFS staffing problem is minimal because research officers complement the efforts of the few technical staff. The opinion of this author however is that no substitute can be provided for maritime training except properly trained, qualified and experienced persons in the profession. In anycase most of the substituted instructors are performing the task in the hard way because they are not trained in instructional designs or teaching methodology. In the final analysis the trainees suffer for it because the right learning atmosphere is not usually created by the untrained instructors.

According to the lattest release of the National Fisheries Development Comittee (NFDC) the following staffing deficiencies are recorded at the School of Fisheries:

1. Navigation and seamanship - 1 principal instructor I, 1 principal instructor II, 1 senior instructor in the School and two mate (fishing), two coxswain (fishing), for the training vessels.

2. Marine engineering - 1 principal instructor I, 1 principal instructor II, 1 senior for the School and two motorman grade I for the training vessels.

3. Some experienced deckhands.

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16. Figures obtained from the principle Mr.Olaniawo. NFDC is the National Fisheries Development Comittee.

It further stated that although there are expartiriates presently assisting in the school further recruitment is advocated for more assistances. The requirement for a properly constituted teaching staff will be proposed in the latter part of this project.

5.4 Existing Legislative Provisions for the Examination and Certification of Marine Fishery Personnel

The examination and certification of competency are covered principally under two ordinances:

1. The Merchant Shipping(fishing boat) Regulations of 1963.
2. The Merchant Shipping Examination for the certificate of competency(fishing) Regulations of 1964.

The text of these regulations are contained in Appendix 1. But for the purpose of clarity and interpretion the aspect of it, in its present status,relating to coxswain (fishing) mates (fishing) and motorman grade II wich are the courses presently taught at the FFS is extracted and dealt with in Appendix 4. This Appendix therefore spells out the national mandatory requirements for qualifying for the examination and certfication of the cadre of officers that are being trained in the only school existing in the country. Other relevant provisons of these regulations are those refering to skippers and motorman grade I,details of wich are contained in App 1. It is not relevant to interprete these provisions because no school in the country offers the course as yet. However,attention is called to the provision of the regulation wich spells out the manning of sea-going fishing boats of over 100 feet in length that must have one skipper(fishing) one mate(fishing) one third engineer and one motorman grade I. The third engineer provision is purely a home trade certificate. One begins to wonder why a home trade engineer was substituted for a fishing vessel engineer. In anycase engine maintenance and operations are similar whether on a fishing boat or a merchant vessel. However,it is questionable because of the inconsistency. The proposal in this project eliminates this inconsistency.

A study of the legislative provision Appendix 4 vis-a-vis the college scheme and syllebus Appendix 5A and 5B shows that the requirements in the sea-training and course content are not met.

The Sea - Service

Although two years is prescribed in the regulation (Appendix 1) as qualifying Sea-Service for Coxwain, a condidate may not complete the two years at sea before entering the scool for the six-month course. He could obtain 3 month remission if he will be resident in the school for 6 month and assuming that the school is approved by the Government Inspector of Shipping.
Similarly a condidate in pursuance of mate fishing must have a coxwain certificate and must have served at least one year in the capacity of coxwain.
The motorman grade II is the lowest grade of engine room operator certificate of competency. The number of month required for training in the college must be set aside for the purpose of computing the remission entitlement. I must say at this stage that obtainning a certificate of competency does not automatically compel a private or government shipowner to employ the holder in the capacity for which he is certified. It is similar to a motor car driving license in Nigeria where a car owner may request for some years of experience, after aquisition of license, to be considered for employment.

A study of the provisions of the IMO Resolution A 539 (Appendex 2) will show that the contents of the courses at the school need reviewing and also the legislative provisions because ships are becoming more advanced technologically and therefor all additional knowledge for new equipment design, operation and mafenance need to be included in the syllabus.
I will admit that the legislation provides for examiners with the power to demand beyond the provisions of the syllabus,for this reason examiners must satisfy themselves that the candidates can perform the duties for which he is certified,no matter how modern the ship is. In the event of the syllabus not being updated,it is left to the educationalist to co-ordinate with the ministry concerned inorder to provide adequate knowledge for successful training.

It is one of the responsibilities of the Maritime Training Instructors to update syllabi to be inline with developmnets both nationally and internationally.

5.5 The Nautical College of Nigeria

The geographical and economical advantage of the country for maritime development has been described in previous chapters. In realisation of the vital role this industry plays in the industrialisation of the country the government, in 1979, set-up objectives

at the inauguration of the college: These objectives were revised in 1983 as follows.

1. To train personnel to serve in near coastal voyages (home trade).
2. To conduct short courses for inland water transportaion personnel.
3. To train ratings in different specialities, able sea-men, shipboard mechanics and electricians.
4. To conduct courses in management administration, economics and other desciplines related to the maritime industry for shore-based personnel.
5. To train adequate personnel as maritime pilots.
6. To train cadets for a career at sea as sea-going navigation officers, engineering officers and radio-communication and electronic officers.

There were other objectives, outside the scope of this project. The entire list of these is aimed at fulfilling all the requirements of the maritime industry except fishing. It is a common practice in all countries to seperate them only because fishing vessels are usually smaller, they operate within the Flag State judicary and they belong to what might be called a composite industry. However, the navigational and engineering knowledge requirements on equitable measures of responsibilities on either a merchant ship or fishing vessel should be recognised.

A national training scheme that allows a switch over between the two sectors is proposed and will be discussed later in the project.

5.6 Other Maritime Training Facilities

A good number of companies provide maritime training for their inland crafts. The list of such companies that are approved by the Ministry of Transport, Government Inspector of Shipping, is illustrated in Appendix 1.8 which is the 7th schedule of regulation 37(1)(B) of the Merchant Shipping Act. Although these companies workshops and training are approved, none of them train more than the lowest cadre.

except the Nigerian Ports Authority. Most of the manpower needs in the inland water trade are filled by either personnel trained in Ghana or deflectors from the ports authority. Candidates for examinations and certification of competency have always had to study on their own and as a result the performances were never commendable. In most cases examiners have had to relax, sometimes to a ridiculous level, in order to assist the industry. A further look into the industry manpower needs will buttress the urgent need of national assistance to provide adequate training in this sector. This is one of the objectives of the National Maritime College Oron, but since its inception in 1980 no training has been effected in this sector.

CHAPTER 6 - THE MANPOWER SITUATION

6.1 Manpower Needs In The Maritme Industries Of Nigeria

A brief insight into the general manpower needs of the industry will suffice at this stage.

1. The Nigerian National Shipping Line (NNSL) presently employs 179 navigation officers, 240 marine engineer officers and 74 radio officers. The total throughput of cargo in Nigeria between 1979/80 was about 18 million metric tons, including 414,000 mt of fish (but excluding crude oil). NNSL has only 1.5% capacity of this throughput, which is an indication of future fleet expansion, hence more employment.

2. Nigerian Ports Authority requires, for its marine activities, 80 qualified navigation officers and 40 engineer officers.

3. The Ministry of Transport and Aviation, Ship Inspectorate Division has 6 qualified surveyors whereas a modest estimate of 24 surveyors are currently on the approved management structure.

4. The previous chapter indicated the vast amount of sea-ways in Nigeria. A total of about 180,000 Metric Tons of cargo were moved in 1959/60 by berges and other inland craft manned by trained Nigerian Ports Authority private school and Ghana Nautical Schools. personnel.

5. The petroleum industry has 142 fields in operation, 26 of which are classed as off-shore.[17] Presently a good number of master mariners and engineers are employed: most of whom are foreigners working in companies such as Shell, Agip, Gulf, NMPC etc.[18]

6. Qualified marine officers are also employed in other private companies such as the National Cargo Handling Corporation, various breweries, private shipping companies, clearing and forwarding companies etc.

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17. By T.M. Burley published in West African Report Nov. 1982.
18. NNPC - Nigerian National Petroleum Corporation.

The need for maritime trained personnel is not exhausted by the list above. It is aimed at giving a definite indication of the situation in the country. At present the federal government is becoming more aware of the importance of the industry. To this end, it has approved ten qualified marine officers from NNSI to be seconded to the Nautical College Oron, after teaching orientation, to assist in the college on international sea salary for an initial period of three years.

6.2 Existing Minimum Safe Manning In Marine Fishing

The human element in the safety of life at sea and protection of the marine enviroment cannot be over emphasised. The competency of command and/or operators of vessels has been dealt with in the previous chapters and will be better emphasised later. This is not the only criterium for going to sea. A reference to Appendix 3 and the description of engineers responsibilities will indicate that it is essential to have such numbers of competent personnel as the size and/or measure of responsibility dictates, to co-odinate the activties required for the safety of life at sea and protection of property and marine environment. Manpower in sea-fishing, therefore (far from guess work) is based accurately on the experience of the international, national and local experts. Certain factors are bourne in mind, such as:

1. Voyage description including trade (in this case fishing) in which the ship is involved, length and nature of voyage, and waters. Bearing in mind:

    a) the effect of catching and hauling of fish on the stability of vessel-specialised training is required.

    b) International and national statutory regulations on hours of work and rest.

    c) The provision of accommodation on board.

    d) In the case of troubled waters, the need to undertake emergency duties and responsibilities.

2. The number, size (kw) and type of main propulsion units and auxiliaries.

3. Specialised training requirements, the need to understand speed

and manoevering requirements during operations.

4. Size of ship - (GRT and length).

5. Construction and technical equipment of the ship (e.g. the extent of automation).

6. Provision of life-saving-appliances.

There may be some other considerations depending on the perculiarity of the vessel in question, these are matters for the judgment of whoever is determining the minimum safe manning scale; for example other criteria like deck arrangement, mooring arrangement, possibility of loss of power, (fire outbreak etc.).

The Merchant Shipping (fishing boat) Regulations of 1963 and the Merchant Shipping Manning Regulations of 1963 relating to inland waters are jointed together in a questionable manner to provide for the manning scale of fishing vessels. I have interpreted these provisions in Table 11 and described the interpretation and the anomalies as Appendix 6 to this project.

6.3 Existing Manpower In The Marine Fisheries

A list of vessels licenced between January to December 1983 was obtained from the Department of Fisheries of the Ministry of Agriculture.

A list of registered fishing vessels upto and including 1984 was also obtained from the Registrar's office of the Ministry of Transport and Aviation.

Combining and computing from these two lists, Tables 12, 13 and 14 were obtained. The number of personnel required to man the vessels in their various categories are computed from the existing manning provisions substituting for rivermaster and quartermaster as if they are mates or coxswain. Summing up the manpower is the addition of Tables 12 and 14 which are: registered fishing vessel personnel and licencenced but not registered fishing vessel personnel respectively.

The sum total comes to:

skipper	127
mate	247
coxswain	263
3rd engineer	127
motorman grade I	247
deckhands	1252.

It is known that all fishing boats not registered in Nigeria but under licence are manned by foreigners. Therefore the percentage of foreigners to the total minimum personnel are:

skipper	89%
mate	47%
3rd engineer	89%
motorman grade I	47%.

It is assumed in this computation that registered vessels operating inshore are all manned by Nigerians , which is not true - despite the above figures are obtained but rather lower than it should be. The percentages of mates, motorman Grade I, Skipper and 3rd Engineers cannot be computed otherwise except going through all the ships.

CHAPTER 7 - PROPOSED SYSTEM OF TRAINING FOR MARINE FISHERIES

7.1 Consideration For The Development Of A National Training Programme

From the preceeding chapters, it is certain that some criteria must be considered in the proposal of a National Scheme Of Training for the fishery sector in the Maritime Industry. The criteria under review are:

1. The geographical situation of the country - abundant natural waterways and fishing potential.

2. The historical influence on the readiness of Nigerians to transport via sea and live on seafood.

3. The political situation, in which a good number of the citizens live on the coast and around the rivers. Also the support of the successive governments for this industry.

4. The national legislative provisions for the training and certification of personnel.

5. The national obligation to the international community.

6. The sound educational system of the country (both the existing and the newly introduced).

7. The demand for trained personnel in the industry.

8. The financial support and other efforts of the government towards the development of manpower in this sector. Although there are anomalies in the execution of the government policy.

9. The interest of foreigners in Nigerian waters.

10. The protection and/or recognition of the Nigeria trained persons in the international market.

11. The present stage of training in this sector. (It is early enough for any modification of system).

7.2 The Proposed National Training Scheme

7.2.1 Background

Fortunately all successive governements in Nigeria have showed, in one form or the other, profound interest in human development (although there is room for improvement). The probable laxities in this industry are the inadequacies of planning, advising and implementation - of the policies. In order that the industry may progress, a national, workable training scheme is essential. My proposal for the National Training Scheme is developed to avoid a drastic change in the present system, yet to cater for the need of the industry up to an internationally recognised level for the manning of any size of fishing vessel. Using this proposed scheme the existing legislative provisions are amended (the anomalies were highlighted in the previous chapter and Appendix 6) to fall in line with the proposed scheme which takes care of all the anomalies in the existing legislative provisions. However, maritime training can be divided into three main sectors.

1. The merchant marine, foreign-going officers training.
2. The home-trade[19] personnel training.
3. The fishing vessel personnel training.

Common to these three sectors (in as far as this project is concerned) are the various levels of the knowledge requirements amongst others, in navigation, engineering and environmental protection. These levels of knowledge requirements are directly related to the expected level of competency of the officer or personnel, bearing in maind the responsibilities required towards the safety of life, property and protection of the environment. These requirements carry a substantial part of the total knowledge requirements in this sector. It is therefore my opinion that the training scheme must be flexible to provide opportunities for personnel to switch over without undue hardship. In view of these, one scheme of training will not be complete without the other sectors. Figure 6 and 7 therefore represent the proposed training - scheme for the fishery sector, home trade and foreign going.

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19. Home trade has the same meaning as Near Coastal Voyages, (NCV).

7.2.2. The Scheme

With reference to figure 6, the training periods of fishing vessel engineer (FVE) and skipper (SK) at various levels are the same in this scheme. There are three ways of entering the training scheme:

1. Those who did not have any form of training prior to working on the ships and have served a period of at least two years (hawse pipe line). This category of fishermen should be given opportunity to enter the training scheme. The left column illustrates the propose training programme for this category. A six month remedial and preparatory course on completion of minimum two years initial sea-service. At the end of this course they either sit examination for the award of certificate of competency (MOT) Skipper III (SKIII) or Fishing vessel Engineer III (FVEIII) or if successful enter the general Maritime basic course for one semester (6 months) and again if successful by the College standard go on to the National Diploma course of 3 semester. However, if unsuccessful after the one year schooling (one semester for remedial and one semester for basic course) he will then be required to serve 18 months qualifying for examination of SKII or FVEII. However the college should provide a three month preparatory course prior to the Examination. After obtaining this certificate he will then be required to serve another two years to be qualified for SKI or FVEI examination. Similarly the college should also provide preparatory course. A successful candidate, after the remedial and basic course may proceed in the ordinary National Diploma (OND) course of three semeters. On completion of this , he will then proceed on systematic training as the other two ways of entering the scheme which will be described

latter.

2. The second line of training is the current practise in the school of Fisheries. A canditate with secondary school leaving testimonial (S.75) or West African School Certificate enters the School to serve initial 6 months workshop and Laboratory training (inclusive of mandatory courses) then 6 months sea-training (preferably on training vessel) before proceeding to the proposed National Maritime basic course of on semester (6 months).

The present practise at the school of Fisheries whereby a candidate is subjected to two years academic course with 3 or less sea-training. The period of sea-training is not specified within the curriculuum. Such Module of training is questionable in maritime training, in any case it does not comply with the legislative provision of the country. The present entry requirements for the various courses of training at the school of fisheries are given in Appendix 5B.

On completion of the basic course, the candidate then enters a 3 semester OND course which prepares him for oral examination against Skipper III or Engineer III certificate of competency. Thereafter he then proceed to sea for a minimum of one year to qualified for examination of SKII or FVII certificate of competency in the same manner as the successful candidate in the previous line of training (Ex-hawse pipe candidate). The college is expected to have a 3 month preparatory course prior to the presentation of such candidate for examination which should be both written and oral. The final stage is also one year sea-ser-

vice and three months preparatory course which amongst other things should include management, prevention of pollution of the sea, advanced safety precautions, International and National Regulations, etc.

3. The third line of entry is proposed, bearing in mind the future educational system of Nigeria This system was described in chapter 5. On completion of Junior Secondary School,that is the 6-3 part of the 6-33-4 system. The young students are absorbed into a one year technical training school which may be called the National Maritime Academy or as it is presently called Nigeria Nautical College Oron. After the one year general course, the students are thensubjected to 6 months workshop and laboratory training, then sent to sea for another 6 months. On completion of their sea-service, they then enter the basic National Maritime Course of one semester. Until the end of this basic course the only difference in the training is the service on the specialised training vessels of each sector. Apart from this all students are subjected to the same Para-military and general training.

This line of training is specially recommended for the Government rather than companies who will be more interested in quicker result from personnel under their training sponsorship. The Advantage of young men under the ideal maritime training is recognised in many developed countries and Nigeria must not overlook these advantages, some of which may be identified as ecomic, national security, discipline, national patriotism , etc.

This initial training may, because of its general nature, be centralised. After the first semester, which is the basic maritime course, all students then split into their area of choice, fishery, near coastal voyage (home trade) and foreign going. It is also at this stage that students should commence on their line of profession, may it be Navigation, Engineering, Electrical or Electronics, Radio Officer, etc. The fishery sector, Engineering and Navigation training follow the pattern already described for the second line of training scheme.

Endorsement courses must be provided to enable candidates switch from one sector to another. Similarly there must be opportunity for every candidate to fulfil their ambition in order to attain any known height in maritime field, may it be Management, Administration or Technology. Figure 7 on the foreign-going column is shown that a one year course after attaining the master or chief Engineer Status would lead to a Bachelor degree in maritime administration or related technical courses.

7.2.3. Implied Certification and Manning in the proposed scheme

The certification in this sector, with reference to figure 6 will be

1) Navigation - Skipper I (SK I); SK II; SK III.

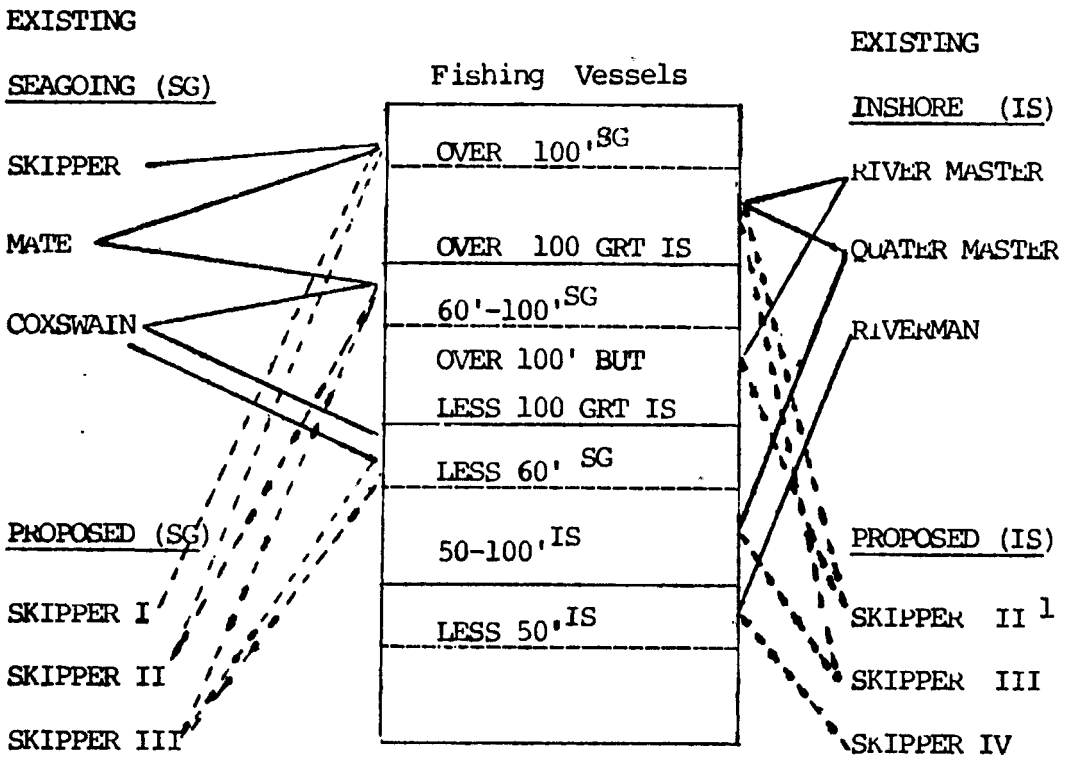
2) Engineering - Fishing Vessel Engineer (FVE) I, FVE II, FVE III.

Table 11 shows amongst other things the range of vessels that must be manned by certificated personnel. In order that the same range may be covered by this proposal a class IV certification is necessary for vessels in the range of 60 feet and below.

The comparison of the proposed certification and the existing system can therefore be reprented thus :

For Navigation:

Certification



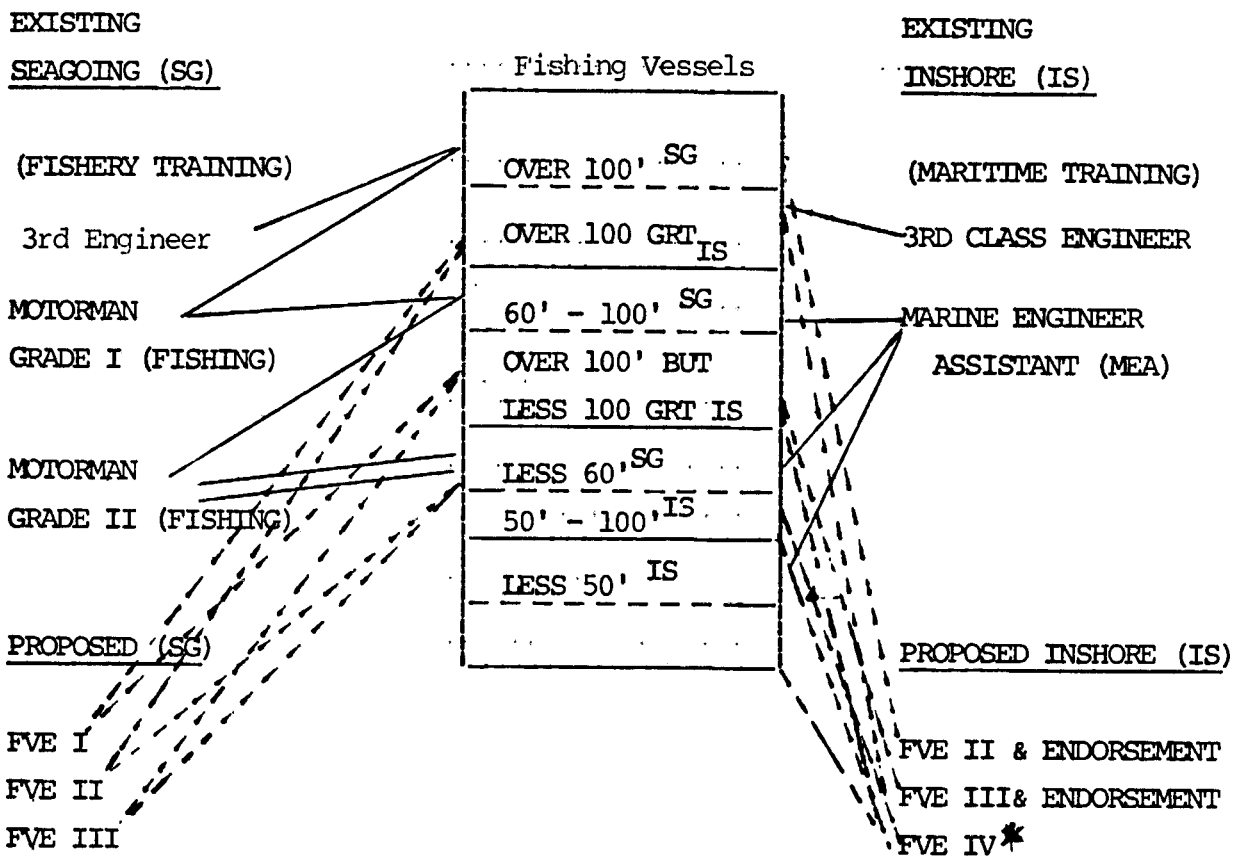
Foot Note :

1. For a skipper II to man fishing vessel ot over 100 GRT in inshore waters must have one year experience and be endorsed accordingly.

2. It is recommended that Rivermaster and quatermasters who are, by the present provisions of the legislation allowed to man fishing vessels must henceforth attend endorsement course and obtain endorsement if they wish to serve on fishing vessels.

For Engineering:

CERTIFICATION



* A One of the two FVE IV must have 24 months sea experience and endorsement.

The changes are tabulated as follows:

EXISTING	NEW PROPOSAL
NAVIGATION	
SKIPPER	SKIPPER I
MATES	SKIPPER II
(RIVERMASTER)	SKIPPER III
COXSWAIN	SKIPPER IV
(QUARTERMASTER)	
RIVERMAN	
Engineering	
3RD CLASS ENGINEER	FISHING VESSEL ENGINEER I
MOTORMAN GRADE I	FISHING VESSEL ENGINEER II
MOTORMAN GRADE II	FISHING VESSELS ENGINEER III
MARINE ENGINEER ASSISTANT	FISHING VESSEL ENGINEER IV

One advantage of this proposal is that personnel on fishing vessels have fishing vessel certificate or have their certificates endorsed for fishing vessels as opposed to the existing system. This is illustrated by the comparison figure above. It also provides for the same range of vessels as the existing system.

However if certificates were to be issued for each sector, the fisnery sector alone will have 8 or at least 6 certificates (If SK IV and FV IV are exempted). Similarly nome trade and FG thus making a total of 18 certificates. The proposal therefore will remain expensive and unsystematic. I therefore propose further that the three sectors be harmonized and a Unified Certification be adopted for economic reasons and easy implementation.

7.3 Harmonization of the Proposed Training and Certification In The Maritime Industry of Nigeria

In the early part of this chapter, the general nature of the basic training has been described, now a reference to the bottom line of table 8 shows that the foreign going watchkeeping certificate, the Near Coastal Voyage Master III (NCVM III) and the fishing Vessel Skipper III (SK III) certificates all require four years of training. It is therefore proposed, in order to reduce the proliferation of certificates, that all of these can be replaced by one basic certificate, designated as class IV Certificate. This certificate can be endorsed for any of the three sectors of the industry (Foreign going, Near Coastal Voyage and Fishing). This proposal takes into account (as previously mentioned) of the fact the training for the basic class IV will be the same and common to the three sectors and that only the endorsement components are specialised for the

particular sector.

Similarly classes III, II and I will substitute for corresponding certificates shown on table 8 above the class IV. It is also assumed in all cases that the basic training at corresponding levels will be the same expect once again the endorsement components which are specialised for the particular sector. However the sea-training should be on the type of ship for which the endorsement is required.

Similarly table 9 for the Engineers follows the same pattern.

However the endorsement certificate should be identified by specific letters indicating which sector the personnel is permitted to operate. For example :

The Engineers on fisning vessels should have the following designated certificates and corresponding shipboard ranks :

Certificate	Shipboard Rank
Class II EF	FVE I
Class III EF	FVE II
Class IV EF	FVE III

Where EF is Engineer (Fisning)

Similarly the Navigators:

Certificates.	Shipboard Ranks
Class II NF	Skipper I (SK I)
Class III NF	SK II
Class IV NF	SK III
Class V	SK IV

Where NF is Navigator (Fishing).

The introduction of class V NF stem from the provision of the Merchant Shipping (licenced ships) Regulation of 1963 which states that a vessel of less than 20 ft must carry for service a person holding a certificate of competency as Riverman. It is therefore (so long as this Regulation is not repealed) proposed that any fishing vessel below 15 GRT should have a certificated officer in order to comply with this regulation.

The level of Responsibility for each Class of Certification is discussed in the next chapter but it should be noted that Class I Certificate is only for Foreign Going sector.

The present training scheme in Oron Nautical College is similar in all aspects of the proposed scheme except for the future proposal of the Junior Secondary School entrance qualification. There is no formal training for the Inland or Near coastal trade apart from the Port Authority private school. The present scheme in the school of fisheries has been described and does not exceed the level of coxswain. In view of these and lack of definite Government programme for the manpower training in this Important Industry, I strongly suggest that consideration be given to this proposal.

CHAPTER 8 - RECOMMENDATION FOR THE IMPLEMENTATION OF PROPOSED SYSTEM

8.1 Criteria For National Process Of Training

In the maritime industry, the International Conventions, recommendations, resolutions and codes, likewise the national legislation and ordinances all focus on navigational practice, equipment design and construction, maintenance and operation of crafts, vessels or marine structures with a view to achieving maximum practicable safety and protection of the environment. The common denominator and most important factor in these endeavours is the human element, the development of a man who will design perfect equipment, install it properly, operate it efficiently and safely, and maintain it adequately. The criteria to achieve this on a national basis inter alia are:

1. The government policies must be clear and be accompanied by the means to execute them.

2. There must be a balance of ideas; all interested parties, international, national quasi-national or private must be identified at the initial or early stages and be made to participate effectively.

3. The requirements of all the interested parties for effective contribution must be provided by the Government.

4. It will be necessary to establish a working group of competent people in the identified areas of interest to facilitate the co-ordination.

5. The development of a national standard as an instrument, developed from the policy by the working group.

6. The legislation or legal establishment of such an instrument, to create awareness on a national and international level thereby preventing diversification in implementation say, in training and also promoting acceptable and a respectable scheme of training.

7. The task of the working group should include, amongst others, the monitoring of progress, ensuring that decisions are geared towards objectives, modification of objectives with international and national developments, and also that feedbacks are in accordance with expectancy.

8. Members of such working groups must be made up of all the interested parties.

8.2 Basic Requirements For Maritime Training

I hesitate in discussing the obvious, but it does happen that institutions exist without the basic requirements to make them function even to the extent of turning out the minumum qualification in the profession they are built for. An example is the Oron Nautical College. Therefore it may be justifyable for me to mention the basic requirements for training in this sector (maritime).

Maritime education and training units (school, institution, college, etc.) will consist of a number of closely inter-related elements, each of which has an important function in ensuring that education and training objectives are achieved. These elements are:

1. Experienced and competent teaching staff. The teaching staff will have the prime responsibility of formulating the education and training programmes, and putting them into effect.

   It is crucial that the staff have the knowledge and experience of the responsibilities and functions of personnel aboard vessels, in order that the correct advice and guidance can be given to the students.

   It is also vital that the teaching staff are aware, not only of national educational and training requirements, but also those that have been agreed and accepted internationally.

2. Laboratories and practical training facilities. The education and training programme will require effective support from laboratories and practical training units, and these facilities need to be compatible with the high and advanced technology used in ship and marine machinery operation. The training equipment must be relevant to the machinery and systems used in modern fishing vessels in order that the practical training activities can be co-related to the personnel duties and functions aboard vessels. Invariably they will need to be procured from overseas, but in most cases obsolete equipment is procured by inexperienced officers charged with equiping such institutions.

3. Building and services. The buildings provided for maritime education need not be elaborate but must be functional, adequate for the particular activity related to their use. For Example:

- Lecture rooms must have appropriate teaching aids and facilities.
- Laboratories must be furnished according to their specialist activity. In some cases, because of the nature of the equipment and its proper environmental care and maintenance, the space may require air conditioning.
- An adequate workshop, to be built for the purpose.
- Adequate access to all spaces is important, and this is especially true for practical training areas which may involve transfer and transport of units which may be heavy, awkwardly shaped, etc.
- The provision of adequate lifting equipment and facilities is essential for practical training areas.

4. Other important training facilities. Mandatory requirements under International Conventions provide that every prospective seafarer should, before being employed in a sea-going vessel, receive approved training in Personal Survival Techniques, Fire fighting and first aid.

It is necessary that adequate and approved provisions are made for training and certification for these mandatory courses. They may not be part of the institution, but such facilities must be identified and provide such instruction that is acceptable by the Maritime Safety Administration.

An adequate library should be provided.

Finally and very important is the provision of training vessels or at worst the opportunity to provide sea-service for trainees. A brief insight into the importance of sea-training will suffice:

The main objective of sea-training is to create awareness of the prevailing events on the job, become aquainted with them and be readily equal to the tasks that might be involved.

The sea-training component should be seen as an extension of the scheme of the land-based training centre. For this reason, it is crucial therefore that a properly structured and organised programme of activities is followed, in order that this period of 'hands on' experience aboard vessels can be fruitful and effective. To provide guidnace, the land-based centre should develop a programme to be followed by the trainee involved before proceeding to the ship. Also for guidance Annex 7 illustrates a form of testimonial to be completed by the trainee while onboard a ship.

Although I appreciate international co-operation there are certain things a nation must endeavour to provide for the citizens. It is even worse when things that are sought in other nations exist within the country but are unidentified. Fire Fighting courses and First Aid are quite easily arranged by adequate co-ordination with the well-equiped Fire Bridgade in our ports, it will require extra constructions and introduction of the requirements of maritime fire fighting training which in my personal opinion can easily be achieved with the calibre of fire fighting men we have - most of them are well-trained.

The First Aid can also be organised through the St.-Johns Ambulance or the Red Cross Society who also are internationally trained and will obviously understand maritime requirements.

The Survival Course, although it will require constructional expenses is not only useful for the maritime industry but for other interested parties within the country who can make use of it. It is my opinion that the course should be centralised and provided on a general basis. The customs, the police, Port Authority employees, private companies that have anything to do with the sea will require some kind of personal survival course, and therefore should or could be a joint venture for the benefit of all. It is a common desire that every project must be absolutely independent. If all projects continue to be independent, apart from the unnecessarily high cost of such projects, they remove the co-ordination that builds up any industrial nation. It is recommended (as if people do not know) that every effort must be made to maximize or at least utilize all available resources within the entire country before looking outside.

While I leave the development of the syllabus to the eductionalists in this sector (maritime educationalist) I shall endeavour to develop the necessary regulations for these proposed trainings, which will, replace the existing ordinances mentioned.

1. Conditions for qualifying examination of competency.

I) Workshop service or other industrial training including sea-service performed before the age of 16 years will not be accepted.

II) Candidate must have medical certificate as proof of fitness including eyesight and hearing from approved medical practitioner.

III) Candidates who are seeking navigational certificate of competency must hold a valid certificate showing that he has passed an eyesight test in accordance with the provision of section 8 of the Merchant Shipping Act 1962.

IV) Candidates must hold certificates or document as evidence of attendance of approved mandatory course, personnel survival course, fire fighting course and First Aid course.

V) Candidates must produce completed testimonial as a proof of good behaviour and character. The format is attached as Appendix 7.

2. In addition to (I) - (V), to qualify for Class V certificate of competency (fishing):

VI) Candidate must have served on a fishing vessel of not less than 30 GRT for a period not less than one year. Six months of which may be allowed by attendance of an approved shore-based workshop or organised school programme.

VII) This certificate will allow the holder to command fishing vessels between 15 to 50 GRT or any fishing vessel not exceeding 50 GRT in inshore operations only.

VIII) Candidate must show evidence of understanding and being understood, and satisfy the examiner in an oral examination.

3. In addition to (I) - (V), to qualify for Class IV certificate of competency (fishing):

IX) Candidate must have attended approved course in a school of fishery or successfully completed approved endorsement course.

Alternatively be onboard a fishing vessel of not less than 200 KW for engineers and 100 GRT for navigators for a period not less than two years.

X) Candidate must satisfy the examiner in both written and oral examinations.

XI) The certificate will allow the holder to mann a fishing vessel of 75 - 200 KW power or any vessel not exceeding 200 KW power (if engineer). While a navigator is entitled to be incharge of a fishing vessel of not more than 100 GRT inshore waters only.

4. In addition to (I) - (V), to qualify for Class III certificate of competency (fishing):

XII) Candidate must have served a period of at least one year on-board a fishing vessel of not less than 200 KW in the case of engineer and 100 GRT in the case of navigator (skipper) while holding a Class IV certificate. In addition must have attended and obtained a National Diploma certificate. Alternatively, while holding a Class IV certificate has served in the same size of vessels stated for a period not less than two years. He can also be qualified by attending successfully an approved endorsement course while holding a Class IV certificate with required (stated) sea-service.

XIII) Candidate must satisfy the examiner both in oral and written examinations.

XIV) This certificate entitles the holder to be incharge of a fishing vessel of between 200 - 750 KW power or any vessel not exceeding 750 KW power and as skipper incharge of a sea-going fishing boat of not more than 200 GRT.

5. In addition to (I) - (V), to qualify for Class II certificate of competency (fishing):

XV) Candidate must have served a period of at least 18 months, while holding a Class III fishing certificate or successfully completed an approved endorsement course while holding any other Class III certificate. The sea-service must have been on a sea-going fishing vessel of not less than 100 GRT in the case of navigator or 200 KW power for engineers. In addition

he must have obtained a National Diploma certificate. Alternatively he has served on similar size of vessel for a period of two years while holding the Class III certificate (fishing).

XVI) Candidate must satisfy the examiner both in written and oral examinations.

XVII) The certificate will entitle the holder to operate a sea-going fishing vessel of between 750 and 4,000 KW power or any vessel not exceeding 4,000 KW power while the skipper can command sea-going fishing vessels up to 1,600 GRT.

6. Fishing vessels of over 4,000 KW power and 1,600 GRT should have, incharge as engineer or navigator, a person holding Class II certificate with one year experience (sea service) and obtained endorsement. Endorsement of such certificate shall be based only on evidence of sea-service on a fishing vessel (sea-going) of not less than 200 GRT and 750 KW.

8.3 Legislative Provisions

One of the major steps towards implementation of any training scheme is to examine the legislative provisions or ordinances. The scheme must be fashioned along the lines of a legally acceptable standard. For reasons stated in an earlier chapter, it is necessary in this case to amend the component of the existing ordinances affecting the maritime sector under review. In view of this the following existing provisions must be replaced:

1. LN 75 of 1963 - The Merchant Shipping (fishing boat) Regulations, 1963 Part III (certificates of competency) Paragraphs 11 (1), 11 (2), 14, 15, 16, 17, 18, (1), 18 (2), 18 (3), 18 (4), 18 (5), 19.
2. LN 11 of 1965 - The Merchant Shipping (Examination for Certificates of Competency) (fishing) Regulations 1964.

   Part I: Chapter III - Deck Certificates of Competency. Paragraphs 11 (1), 11 (2), 11 (3), 12, 13 (1), 13 (2), 14 (1), 15 (1), 16 (1).

   Chapter V - Success and failure in the Examination. Paragraphs: 17 and 18.

Part II: Chapter V - Engine Room Certificate of Competency. Paragraphs: 21 (1), 21 (2), 22, 23 (see 1 above), 24 (see 1 above), 28 (1) (navigational subjects are implied for engineers), 30 (1).

First schedule - Syllabuses, paragraph 2 (coxswain), 3 (mate) and 4 (skipper).

Second schedule - Syllabuses for motorman (fishing grade I and II).

Both fist and second schedule are to be replaced by syllabuses in accordance with the roposed certification. The syllabus for each class of asic certificate should be common to all three sectors of the ndustry (fishery, inshore and foreign going) but the endorsement component of these certificates should be special to the particular sector.

8.4 The Role of Government Inspector Of Shipping

Section 427 of the Nigerian Shipping Act states in part "The Minister may make regulations generally for carrying this Act into effect, and in particular and without prejudice to the generality of the foregoing; such regulations may provide for -

(j) - The operation of schools of navigation

(c) - The qualification of officers ....

(e) - The manning and survey of fishing vessels."

The granting of certificate of competency is invested in the Government Inspector of Shipping.

The above statutory roles and other relevant provisions previousely mentioned in the other chapters are invested in the Goverment Inspector of Shipping (GIS). Therefore it is obvious that the Minister of Transport and GIS have strong influence on the development and training of manpower in this sector. They are the link between the International and National community. The national laws are tailored (as in all other countries) to suit the international provisions with appropriate relaxatio . Consequently,

all organizations involved in the development must contribute their quota effectively otherwise there will be no success. Unfortunately, that is the situation at present in Nigeria.

The technical standards of all ships and marine structures is on global basis invested in the International Maritime Organisation. The education of seafarers and co-operation to effect technological transfer is placed on the technical co-operation division of the IMO. The conventions, codes and recommendations emanating from this division can best be interpretted by the Government Inspector of Shipping. It is also interesting to know that IMO prepares model syllabus, school arrangement, equipment requirement,staffing statistics etc. These facilities can be obtained by member countries at no charge. Although we utilise the efforts of this organisation but in most cases we do it without our active participation. The failure of such adventures are due to:

1. The "experts" invited to take charge of such projects cannot co-ordinate all interested parties on our behalf.
2. The supporting infrastructure is usually beyond the foreigners capabilities.
3. The necessary preparation for the major project is never there.
4. The lack of trust in some Nigerians who might support the successful implementation of the project.
5. The betrayal of trust by some Nigerians who are placed in the stream of the project.
6. The selection of incompetent people to hold important strategic positions vital to the successful implementation of the project.
7. Political and personal interest over and above national objectives.

If the Ministry of Transport were to act in accordance with the statutory provisions with a view to eliminating all the short comings then manpower development and training should not be elusive. After all present regulation requires that:

1. The Ministry should appreciate or identify the role and statutory responsibilities of the Maritime Safety Administration (GIS-Office) and develope it to the extent that it can perform its duties effectively.
2. The GIS should approve the design of the Maritime School,satisfy

itself on the quality of the syllabus, occational monitoring of the teaching qualities and general progress of the schools.

3. International and national development should be communicated via the GIS to the training centres and other interested parties, e.g. shipping companies fishery industry, oil companies operating off-shore etc.

4. The GIS in co-operation with other interested parties, e.g. various Maritime Unions, companies, Ports Authority Ministry of Education should control the rate of imput into training in consonance with demand.

The effective utilisation of funds can only be achieved by a thorough arrangement of priorities. A sound GIS Office should be able to achieve results with a modest vote by maximising the other available resources.

8.5 The Role Of The Ministry Of Agriculture

In the previous chapters, the current situation in the fishing industry has been mentioned, for example;

1. The tonnage of foreign ships under licence.
2. The number of ships not registered in Nigeria but under licence to fish.
3. The number of foreign personnel working onboard vessels in relation to Nigerians.
4. The fact that it may be cheaper to import fish than to subject ourselves to double exploitation, (manpower derogation and remarkable invisible foreign exchange drain.)
5. The spirit of indegeinisation decree is completely destroyed in as far as sea-fishery sector is concerned. This decree appears to be effective on paperwork which stipulates that the fishing company is 60% owned by a Nigerian.

One may wonder why I have listed the five items above, it is because this Ministry has enough power to control this industry and provide opportunity for Nigerians to work onboard ships, develop landing jetties, etc., thereby employing technicians eventually encouraging boat builders. It is my personal opinion that if incentive and motivation have been given to some sectors in Nigeria, sea-going vessels could have been turning out

from boatyards at a savings of considerable amount from what we pay on charter party. The government policy is very encouraging but the implementation is questionable. Inorder to improve the present situation in the fishery sector under review, the following suggestions are made:

1. Fishing companies with more than 250 GRT must train at least one Nigerian either as engineer or navigator. For every other 500 GRT in excess of 250 GRT two Nigerians. Where two Nigerians are trained one must be a navigator while the other an engineer.
2. The training must be carried out in a school approved by the Ministry of Transport.
3. The evidence of such training should be one of the criteria for renewal of licence to fish in Nigerian waters including EEZ.
4. The trainees must be taken as part of the employees of the company, although level of salary or subsistence allowance should be left to the company and trainee concerned.
5. Efforts must be made by the fishing company, in terms of salary paid to the fishing vessel staff, to reflect the indigenisation decree.
6. There should be tax relief for such companies, depending on the number of trainees on its register.
7. Equal opportunities should be given to Nigeria-trained personnel in a fishing company.
8. All rules relating to training and manpower development should apply to all vessels whether or not they are registered in Niger

10. The inspectorate division should make adequate use of all national resources to control fishing in Nigerian waters. A regular circular to the navy, customs, harbour police, Port Authority and Government Inspector of Ships, the list of licenced ships so as to enable them to provide a co-ordinated effort for the effective control of fishing vessels in Nigerian waters.

It is in my opinion that a lot of effort is put into quantity of fish landing in Nigeria without actually quantifying the national cost in terms of conservation of resources, indegenous development and worst of all the development of other participating nations at the expense of Nigeria. For prosperity, the policy must be geared towards self-reliance in fishing. A policy of " all hands on deck " everybody who makes his living by fishing must put some fraction of the money back into the sector in such a manner that the industry directly improves towards complete indegenization. Towards this end, no Nigerian fishing company should be allowed to charter more than 4,000 GRT. Any intention by a company to expand beyond 4,000 GRT should be by direct purchase of fishing vessels. Or a more acceptable suggestion is that the company should be encourage to build a boat in Nigeria, if possible with government financial quarantee. There must be an upper limit allowed on charter basis. Similarly the inshore fishing should also be controlled to allow better participation on Nigerians with a positive view to eventually taking over the industry from foreign exploitation.

8.6 Surveillance

The development and training of manpower in this sector serves other purposes apart from job opportunity for Nigerians. It also, to a large extent protects the economic development of the country. The economic development can be split into many factors but under the surveillance an indirect control of the trade will be achieved. It is widely believed that a reasonable quantity of catch is sold at sea.

A quick look at the following figures may give an indication to the economic losses due to lack of surveillance.

The licenced tonnage in 1983 was 164,750 GRT in distant fishing only.

A humble estimate of 75% catch per month for the company to remain in business is very generous.

Seventy-five percent per month is 123,562 GT,for one year is 1,482,750 GT. Let us assume net tonnage is 30% of GRT, which is another generous figure, the landing should be 444,825 but the landing on record is 244,408.

The Sea Fisheries Laws and Regulation of 1971 provide that any authorised person may within the territorial waters of Nigeria,

1. require the owner or the person in charge of a motor fishing boat to exhibit his licence, fishing apparatus and catch.
2. go on board and search and inspect the fishing boat and any fishing apparatus.

An authorised person in this case means :

1. The licencing officer.
2. Any commissioned officer in the Nigerian Army, Navy or Air Force..
3. A police officer not below the rank of Assistant Preventive Superintendent.
4. A customs officer not below the rank of Assistant Preventive Superintendent
5. A Surveyor or Examiner under the provisions of the Merchant Shipping Act of 1962.
6. Any other person authorised in writting by the Minister.

In the absence of a National Coastguard Unit, the authority of surveillance is invested in the customs, navy, the harbour police etc,.

But the licencing office of the Ministry of Agriculture is supposed to be equipped for inspectorate duties. As a matter of fact, they probably are the most competent to do the job. However, if a branch of navy or police or custom are specially trained to understand the implecation of letting vessels sell their catch at sea or fishing without licence then, it may be better to take advantage of their resources and training. It may suffice to tell a little story of my experience during the collection of materials for my project.

I was sitting down in front of a schedule officer in one of the Ministries of Agriculture Office. One of the chiefs of the co-operative societies came in and requested for supply of a more powerful out-board engine than he was supplied with. The officer asked him, why he wanted such a powerful engine, he retorded and said, " Sir, it is a big business, if I can go fast to sea, buy fish from the big boats twice or more a day ". He was cautioned by the officer. This is an indication of a common practise. Everybody who is interested in the fishery knows that this is a common practise except the people who are in charge of surveillance. It is either that they do not know the economic impact or it is beneficial to them as individuals. The dangerous aspect of it is that, just as the NNigerians buy their fish from these big boats so also the neighbouring fishermen buy from the same big boat.

If all fishing boats at sea were manned by Nigerians obviously the policing or control will largely take care of itself, at least the monetary transaction will to some extent be internal.

CHAPTER 9 - SUMMARY AND CONCLUSION

Nature has played its part, Nigerians only need to be competent enough to utilise the provisions of Nature to develop and protect the future by using one provision to provide an alternative resource for future economic development.

The importance of taking into account effectively the human and social factors for technical development cannot be overstressed. As has already been mentioned, inadequate consideration of these factors has been and still is a major cause for failures in the transfer and development of technology not only in the fisheries.

It takes about seven years to train an officer to be incharge of a vessel of say 1,600 GRT. This is a long investment and if a capital orientated organisation can do without it, it will not venture. The policy makers must appreciate this fact and tailor the conditions to suit the needs of the nation for the achievement of national goals which in this case are technological development in terms of manpower development. All arms of the government involved in the industry including the Ministry of Education and the private sector must form a board or committee, which may be called manpower development for the fisheries. The present extension unit programme, the brain-child of FAO is good but only as an interim solution. A more acceptable suggestion is to introduce fishery studies into all the numerous vocational colleges in the coastal states and if possible build new schools (four simple walls with a roof) with humble teaching aids, in places where fishery is the major occupation and provide free education to the children of the locals who invariable are all poor citizens. It is a national affair and should not be just the responcibility of the Ministry of Agriculture.

It is not surprising that no vocational school offers any course relating to fishery because the Ministry of Education has nothing to do with fisheries. As for the Marine Fisheries, another Board or Committee responsible for organising seminars and co-ordinating the rather diversified maritime industry is suggested. The Board should be statutorily constituted and mandated to interpret the national policy to meet the needs and achieve the national goals, which is manpower development training for technological deveolpment (displacement of foreign experts and technical assistance inclusive). All arms of the government involved in the industry including the Ministry of Education and private sector must form a committee as in

the previous case probably called the maritime training board. In achieving these goals the basic function should be to provide or be responsible for providing equitable training and manpower in various sectors of the maritime industry. The education policy should be such that the trainees have a free choice of national employment in any other sector within the industry. This is why my proposal includes an Ordinary National Diploma in all sectors, to create required Flexibility. This system can only be achieved by the provision of a co-ordinating Board where, for instance, the following can be made to contribute actively:

1. The Ministry of Education.
2. The Ministry of Transport and Aviation. (Government Inspector of Shipping).
3. Maritime training institutions (schools) including approved workshops (maritime) and School of Fisheries.
4. Nigerian Ports Authority.
5. Nigerian Shipping Companies.
6. Merchant Navy Union.
7. Marine Fishery Union (if any) otherwise any fishing company owning more than 500 GRT.
8. Other interested parties. e.g oil companies.

These people should meet in the form of a seminar as often as necessary to set the objectives and mandate the responsible sector to follow-up. They should there after meet at least twice a year to review the objectives and analyse the achievements. A lot of materials are buried in the country because most things are done in isolation. For an effective policy, Nigerians must accept including myself, that it is not enough to play just ones part (work-according to schedule), that part must be co-ordinated, followed-up with action and finally account for the result. That result must also be inline with the objective. It is only after this that one can express satisfaction, happiness and patriotism which automatically creates national development not only in fisheries.

TABLES

TABLE 1

LIMITS OF THE NIGERIAN CONTINENTAL SHELF (BASED ON MAP SHEET D 200/375/7-74 DRAWN AND REPRODUCED BY FEDERAL SURVEYS, NIGERIA, 1974)

State	Area off	Distance off-shore	Depth of edge of shelf (m)
Lagos	Lagos	15	120
Bendel	Escravos River	31	270
Rivers	Dodo River	36	220
Rivers	Nun River	39	150
Rivers	St. Bartholomeo	49	280
Rivers	Opobo River	44	200
Cross River	Calabar River	40	90

TABLE 2

ESTIMATES OF TWO SECTORS OF THE CONTINENTAL SHELF AREA (km^2) FOR VARIOUS COASTAL STATES.

Coastal	Continental shelf area (km^2)	
	0 - 10 fath (0-18)	10 - 50 fath(18-91m)
Cross River State	2810	3590
Rivers State	5200	10890
Bendel State	1200	1470
Undo State/ Ogun State/ Lagos State	2570	5730

Ex. Federal Surveys Department, Nigeria.

TABLE 3

ESTIMATED AREA OF MAJOR LAGOONS, ESTUARIES AND LOWER RIVER SECTORS THAT ARE FRINGED BY MANGROVE.

Brackishwater System	State	Brackishwater area in km^2	
		Based on Federal Survey maps	Based on Radar Mosaics
Epe Lagoon	Lagos	(	-
Lagos Lagoon	Lagos	(460 (	-
Lekki Lagoon	Lagos	-	-
Ogun Lagoon	Ogun	26	-
Benin River	Bendel	150	109
Escravos River	Bendel	150	160
Forcados River	Bendel	120	201
Ramos River	Rivers	50	46
Dodo River	Rivers	-	-
Pennington River	Rivers	21	17
Kulama River	Rivers	10	12
Fishtown River	Rivers	5	5
Sangana River	Rivers	37	-
Nun River	Rivers	67	52
Brass River	Rivers	94	91
St. Nicholas River	Rivers	44	21
San Barbara River	Rivers	49	48
San Bartholomeo River	Rivers	84	81
Sambreiro River	Rivers	117	132
New Calabar River	Rivers	92	165
Bonny River	Rivers	124	180
Andoni River	Rivers	160	117
Imo River	Rivers	-	51
Kwa Ibo River	Cross River	-	7
Cross River	Cross River	750	510

Source: FAO - 1983, Field Document 2, No. FI:DP/NIR/77/001

TABLE 4

FISHING CRAFTS (1971 - 1979)

YEAR	ARTISANAL CANOES	
	POWERED	NOT POWERED
1971	4206	90923
1972	5364	90523
1973	6224	91732
1974	7850	10032
1975	8240	20381
1976	11704	122633
1977	12187	125256
1978	10118	128129
1979	12510	121218

Ex. Fishery statistics of Nigeria
Published by the Federal Department of Fisheries.
(1980)

SITUATION IN THE MARINE FISHING INDUSTRY

Nº	NAME OF FISHING COMPANIES	Nº OF REGISTERED VESSELS	Nº OF LICENSED VESSELS			Nº OF REGISTER VESSEL ON LICENCE		
			DIST. FISHⁿ	INSHORE		DIST. FISHⁿ	INSHORE	
				FISH	SHRIMP		FISH	SHRIMP
1.	NIGERIA NATIONAL SHRIMP CO.	14	-	-	10	N/A	-	9
2.	BARNALY NIG.LTD	-	2	-	-	-	-	-
3.	CHELLARAMS LTD	-	1	-	-	-	-	-
4.	ALLISON LTD	-	2	-	-	-	-	-
5.	UREN AGRO PRODUCTS	-	1	-	-	-	-	-
6.	BEATRICE FISHING	-	1	-	-	-	-	-
7.	GBENGA OLA OJO	-	1	-	-	-	-	-
8.	REPUBLIC FISHING	5	-	1	-	N/A	-	-
9.	WEST COAST LTD	2	-	5	-	N/A	2	-
10.	OBELAWO FARCHA LTD	25	-	23	-	N/A	23	-
11.	INTERCONTINENTAL FISHING LTD	9	-	4	10	N/A	2	8
12.	NIKE FISHING CO	5	-	9	-	N/A	5	-
13.	BENDEL CO-OPERATIVE	-	-	2	-	N/A	-	-
14.	SEA-HORSE FISHING	-	-	1	-	N/A	-	-
15.	COAST LINE FISHING	2	-	2	-	N/A	2	-
16.	SOBAT LTD	1	-	1	-	N/A	1	-
17.	MERMAID MERCHANT	2	-	2	-	N/A	2	-
18.	PPP LTD	-	-	1	1	N/A	-	-
19.	HUSSAINA FISHING	2	-	2	-	N/A	2	-
20.	MARINE FOODS LTD	-	-	2	-	N/A	-	-
21.	GXANTHOPOULOS	-	-	1	-	N/A	-	-
22.	OFF-SHORE TRAWLERS	1	-	2	-	N/A	-	-
23.	BANUSO FISHERIES	1	-	1	-	N/A	1	-
24.	PAN NIKOR FISHING	4	-	2	2	N/A	2	2
25.	EYIBE NIG.ENTERP.	3	-	-	2	N/A	-	2
26.	LINA FISHIES LTD	4	5	1	-	-	-	-
27.	ADEWUNM FISHIES	-	4	3	-	-	-	-
28.	ABDEL ENTERPRISES	-	4	-	-	-	-	-
29.	ORC LTD	-	2	-	-	-	-	-
30.	UNIVERSAL LTD	-	7	-	-	-	-	-

31.	IBRU	2	6	-	-	-	-	-
32.	PARAMOUNT	-	7	-	-	-	-	-
33.	OSADJEVE	11	2	-	9	-	-	6
34.	OCEAN TRADING	15	3	11	-	-	9	-
35.	TOMAB	-	1	-	-	-	-	-
36.	INLAKS	-	4	-	-	-	-	-
37.	TRANS CONTINENTAL	-	4	-	-	-	-	-
38.	ATLANTIC FISHING	-	6	2	-	-	-	-
39.	ASRA SEAFOOD	-	5	-	-	-	-	-
40.	INTRA FISHERIES	-	6	-	-	-	-	-
41.	MOSHESNE	-	1	-	-	-	-	-
42.	GLOBE FISHING	-	6	-	-	-	-	-
43.	LADGROUP	-	2	-	-	-	-	-
44.	FROZEN FOOD	-	3	-	-	-	-	-
45.	SEAGEMS	-	2	-	-	-	-	-
46.	FISHERY SERVICES	-	1	-	-	-	-	-
47.	MERIAL FISHING	-	1	-	-	-	-	-
48.	IRESA-ADU FISHING	-	2	-	-	-	-	-
49.	NIGER SEAFOOD	-	2	-	-	-	-	-
50.	FISESCO LTD	-	1	-	-	-	-	-
51.	SCOTT FISHING	5	-	-	7	N/A	-	5

TABLE 6

NIGERIAN FISH PRODUCTION BY SECTORS
(In metric tons)

SECTORS	1978	1979	1980	1981	1982
ARTISANAL 1.Coastal and brackish water	255426	264495	274158	323916	377614
2.Inland Rivers and Lakes	245986	259632	187206	157867	115724
INDUSTRIAL (Com. Trawlers) 1.Coastal (fish)	15245	9406	16342	12435	15052
2.Coastal (shrimps)	1910	1902	1890	2003	3525
Distant Water (import)	202208	218000	234000	245000	244408
Total Industrial (TI)	219363	229308	252232	259438	262985
Grand Total (GT)	720775	753435	713596	741221	756387
Percentage of (TI) to (GT) %	30.43	30.43	35.34	35.00	34.8

Production figures extracted from the Federal Department of Agriculture News Volume4, No.6.

TABLE 7

CAPITAL EXPENDITURE BY GOVERNMENT 1981-1985

SECTOR: EDUCATION

₦ million

No.	State	State Govt. Expenditure ₦ 000	Local Govt. Expenditure ₦ 000	Total State L.G.A.'s Expenditure ₦ 000
1.	Anambra	184.200	35.100	219.310
2.	Bauchi	123.684	106.550	230.234
3.	Bendel	300.000	128.208	428.208
4.	Benue	112.040	51.279	163.310
5.	Borno	264.100	68.940	323.040
6.	Cross River	173.789	89.501	213.290
7.	Gongola	209.574	68.067	277.641
8.	Imo	121.520	46.000	167.520
9.	Kaduna	255.224	129.550	384.774
10.	Kano	408.300	168.811	577.111
11.	Kwara	205.750	20.375	226.125
12.	Lagos	97.724	8.198	105.922
13.	Niger	193.65p	38.790	232.440
14.	Ogun	269.820	9.616	279.436
15.	Ondo	241.117	33.128	274.245
16.	Oyo	476.683	2.331	479.014
17.	Plateau	191.245	14.205	205.405
18.	Rivers	226.600	4.400	231.000
19	Sokoto	198.000	37.000	235.000
	TOTAL GOVTS. (STATE AND LOCAL)	4,253.020	1,000.059	5,253.079
	FEDERAL	2,450.000	-	2,450.000
TOTAL ALL GOVERNMENTS		6,703.020	1,000.059	7,703.079

TABLE 8

ENROLMENT IN PRIMARY SCHOOLS. 1975-76 TO 1981-85

State	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85
Anambra	641,775	826,783	907,252	911,377	961,503	1,000617	1,019,718	1,030,030	1,042,570	1,908,327
Bauchi	126,300	220,211	329,611	362,911	399,092	473,025	538,118	582,524	596,098	611,300
Bendel	606,115	676,373	751,712	792,921	835,740	877,537	921,403	967,473	1,011,493	1,057,516
Benue	256,747	535,096	629,243	838,723	866,400	894,991	921,801	952,262	893,687	1,015,150
Borno	136,964	214,170	369,052	529,620	693,294	750,232	769,226	788,698	808,664	829,135
Cross River	597,182	119,550	768,292	824,500	850,834	870,528	892,567	915,149	938,328	962,083
Gongola	158,200	206,330	322.313	397,705	473,097	542,197	592,560	636,500	668,569	685,494
Imo	739,031	938,400	1,003,824	1,014,467	1,025,110	1,096,868	1,151,718	1,209,297	1,269,762	1,269,762
Kaduna	218,204	460,349	613,091	747,125	845,125	956,005	1,025,747	1,051,720	1,078,343	1,105,636
Kano	160,340	341,806	472,813	659,927	842,928	952,333	1,025,910	1,137,735	1,510,720	1,548,966
Kwara	181,050	250,785	394,030	493,241	588,388	680,176	701,888	718,266	837,282	834,170
Lagos	355,645	288,429	400,405	434,453	465,140	494,072	524,803	557,446	592,120	628,950
Niger	55,377	113,852	181,781	277,495	319,755	368,454	424,570	445,800	488,090	,491,500
Ogun	240,701	282,333	299,015	345,393	350,423	398,013	408,088	418,420	429,011	439,872
Ondo	332,611	403,260	428,119	464,395	478,154	523,580	576,985	617,374	647,625	667,700
Oyo	582,452	734,832	866,340	966,362	1,281,744	1,296,210	1,336,716	1,362,667	1,397,163	1,477,299
Plateau	147,873	317,487	365,554	452,056	536,546	544,300	626,652	673,553	707,231	742,593
Rivers	275,591	346,961	430,388	470,438	510,488	553,930	601,070	631,124	667,020	710,370
Sokoto	138,138	206,177	301,542	397,351	423,592	528,520	642,680	731,090	825,030	930,030
NIGERIA	5,950,296	8,242,060	9,845,838	11,457,772	12,749,403	13,819,579	14,702,247	15,428,028	16,488,506	17,527,393

Federal Ministry of Education
Planning and Development Section
Statistics Unit,
Lagos.

TABLE 9

STATISTICS OF SECONDARY EDUCATION IN NIGERIA

NUMBER OF SECONDARY GRAMMAR/COMMERCIAL SCHOOLS AND THEIR ENROLMENT, 1975-76–1980-81

No.	State	1975-76		1976-77		1977-78		1978-79		1979-80		1980-81	
		No. of Schools	Enrolment	No. of Schools	Enrolment	No. of Schools	Enrolment	No. of Schools	Enrolment	No. of Schools	Enrolment	No. of Schools	Enrolment
1.	Anambra	95	64,601	131	80,346	186	97,313	249	112,786	370	145,780	445	175,588
2.	Bauchi	10	4,225	10	4,697	12	5,132	25	8,407	48	13,359	48	1,924
3.	Bendel	149	82,407	147	95,330	167	107,011	187	122,662	267	185,216	467	255,366
4.	Benue	58	14,311	69	22,355	75	30,870	158	46,728	183	44,728	185	46,970
5.	Borno	17	5,282	17	6,240	23	8,231	23	10,381	59	14,000	59	14,700
6.	Cross River	91	40,213	98	50,362	134	66,341	178	87,506	210	105,417	440	126,495
7.	Gongola	18	6,405	22	8,068	27	10,025	35	15,233	44	19,983	44	20,982
8.	Imo	127	85,998	147	110,140	221	155,858	276	173,935	350	251,000	410	440,000
9.	Kaduna	29	18,606	34	23,680	40	32,440	48	35,318	74	34,738	74	44,837
10.	Kano	20	7,482	25	10,095	30	12,987	30	16,957	33	19,768	48	55,034
11.	Kwara	70	27,856	78	31,806	80	38,243	75	47,725	105	60,657	161	74,739
12.	Lagos	110	64,232	93	78,331	98	82,956	79	89,139	125	154,000	226	215,600
13.	Niger	13	4,342	14	5,048	17	6,312	17	7,640	27	10,770	27	11,308
14.	Ogun	99	43,812	97	46,938	106	50,674	119	54,000	151	73,071	326	125,326
15.	Ondo	233	72,081	261	78,468	261	81,879	252	85,589	252	139,258	419	203,815
16.	Oyo	261	113,287	300	128,136	293	147,786	328	165,476	378	204,318	687	262,229
17.	Plateau	38	11,330	43	12,534	49	16,678	51	20,914	75	26,638	75	27,970
18.	Rivers	52	32,080	52	33,027	87	49,538	95	48,829	97	74,606	137	81,644
19.	Sokoto	23	6,367	22	6,553	22	7,638	26	9,628	58	20,565	58	21,593
	Nigeria	1,513	704,917	1,560	832,154	1,928	1,007,903	2,259	1,159,401	2,908	1,557,877	4,334	2,226,124

TABLE 10

NIGERIAN UNIVERSITIES
PROJECTED ENROLMENTS - 1981-85

Universities	1980-81	1981-82	1982-83	1983-84	1984-85
Ibadan	8,595	9,557	10,034	10,285	10,485
Lagos	8,894	9,557	10,242	10,595	10,905
Nigeria, Nsukka	8,060	8,642	9,411	10,170	10,625
Zaria	10,396	11,122	12,279	12,170	12,985
Ife	8,711	9,217	9,620	10,342	10,675
Benin	3,890	4,660	5,681	6.560	6,985
Jos	3,293	4,135	5,158	6,045	6,610
Calabar	2,751	3,436	4,151	5,031	6,015
Kano	2,775	3,550	4,275	3,035	6,115
Maiduguri	3,393	4,398	5,009	5,685	6,150
Sokoto	1,717	2,532	3,317	4,217	4,625
Ilorin	2,042	2,999	4,204	5,220	6,215
Portharcourt	1,976	2,504	3,155	3,935	4,830
Bauchi	-	400	600	800	1,000
Markurdi	-	250	500	750	1,000
Owerri	-	250	500	750	1,000
Ondo	-	-	250	500	750
Gongola	-	-	250	500	750
Ogun	-	-	-	250	500
Niger	-	-	-	250	500
ALL UNIVERSITIES	66,553	77,209	88,636	99, 090	108,720

EXISTING NIGERIA FISHING VESSEL MANNING

TABLE 11

	SEA GOING				TIDAL AND TIDAL WATERS					NON TIDAL WATERS		
	100 ft and above	over 60 ft -100 ft	less than 60 ft		over 100 tons(GRT)	100 ft & above, less than 100GRT	50 ft -100 ft	20 ft -50 ft	less than 20 ft	20 ft -50 ft	less than 20 ft	P.D.S.C.
SKIPPER	1											
MATE	1	1										
RIVERMASTER					1	1						
COXSWAIN		1	1	2								
QUARTERMASTER					1		1	1	1			
RIVER MAN										1	1	
THIRD CLASS ENGINEER	1				1[a]							
MOTORMAN GRADE I	1	1										
MOTORMAN GRADE II		1	1	2						1[c]	1[d]	
MARINE ENGINEER ASSIST.					2[b]	1	1	1[c]	1[d]			
P.D.S.C.OPERATOR												1
DECK HAND	S	S	S	S	4	3	2	1		1		1

12 hrs at sea only

more than 12 hrs at sea

Note: S Sufficient but not less than 4

A or B

C Need not to be carried if vessel is less than 100 Bhp

D Need not to be carried if vessel designed One Man Operation

REGISTERED FISHING VESSELS AS AT DECEMBER 1984. TABLE 12

VESSEL LENGHTS IN FEET	NUMBER ON REGISTER	MINIMUM NUMBER AND CATEGORIES OF PERSONNEL						
		SKIPPER	MATE	COXWAIN	3rd.ENG.	MOTORMAN GRADE I	MOTORMAN GRADE II	DECKHAND
0 - 60	69	-	-	138	-	-	138	276
60 - 100	116	-	116	116	-	116	138	464
OVER 100	14	14	14	-	14	14	-	56
TOTAL	199	14	130	254	14	130	276	796

UNREGISTERED FISHING VESSELS UNDER LICENCE IN NIGERIA
(1983)

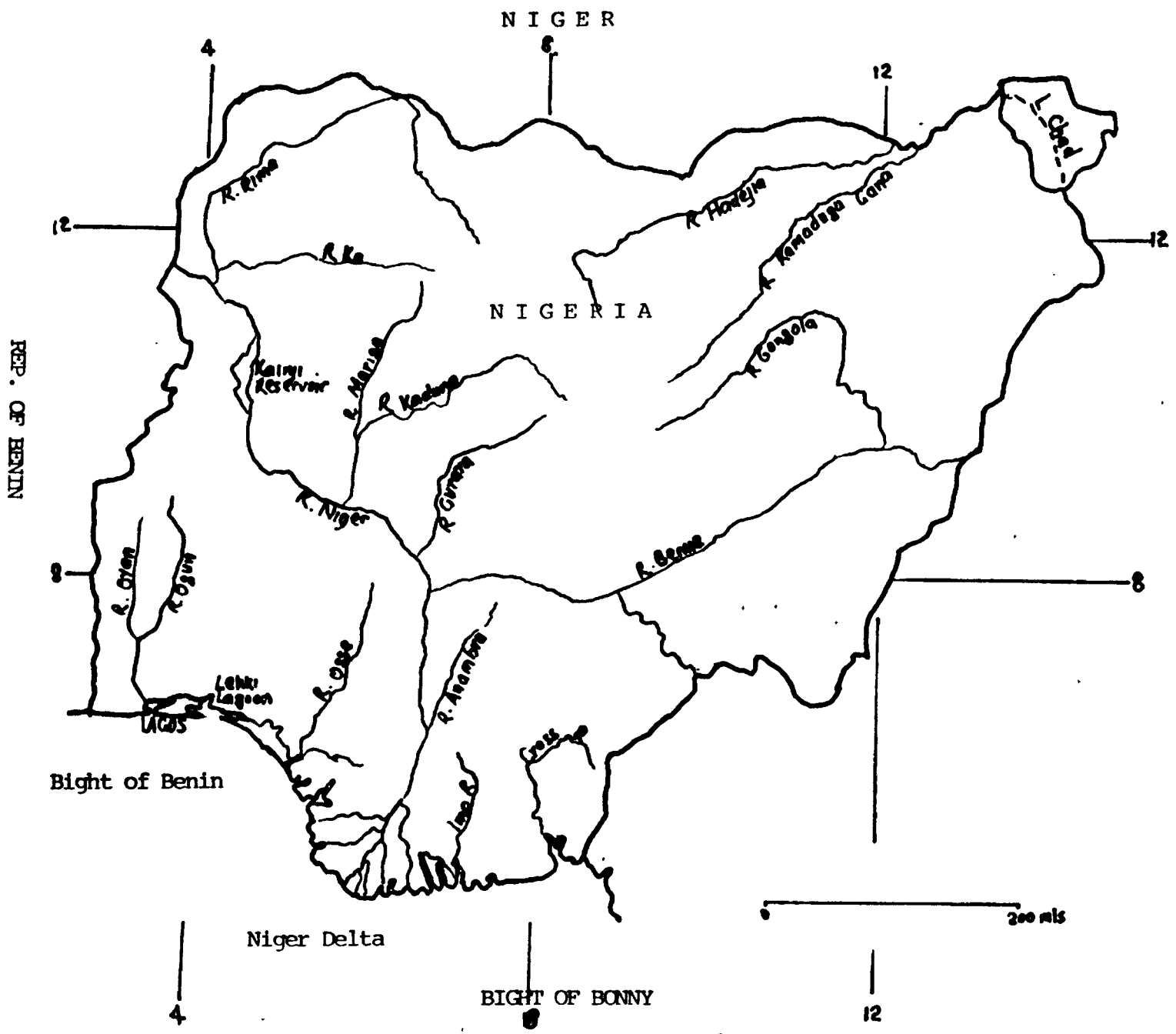
VESSEL STATUS	DISTANT FISHING VESSELS		INSHORE FISHING VESSELS			INSHORE SHRIMPING VESSELS		
	OVER 100	LESS 100	OVER 100	100-60	LESS 60	OVER 100	100-60	LESS 60
NOT REGISTERED IN NIGERIA BUT UNDER LICENCE TO FISH. (1983)	91	4	21	-	3	1	-	2
REGISTERED BUT NOT LICENC. TO FISH AND NO DECLARATION OF DISPOSAL. (1983)	-	-	5	-	4	5	-	-

TABLE 14

FISHING BOATS NOT REGISTERED IN NIGERIA BUT UNDER LICENCE TO FISH AND MINIMUM MANNING REQUIREMENTS.

		MINIMUM NUMBER AND CATEGORY OF PERSONNEL						
VESSEL LENGTHS IN FEET	NUMBER ON LICENCE	SKIPPER	MATE	COXSWAIN	3rd. ENG.	MOTORMAN GRADE I	MOTORMAN GRADE II	DECKHAND
INSHORE FISHING AND SHRIMPING 0 - 60	5	-	-	5-	-	-	5	20
INSHORE FISHING AND SHRIMPING OVER 100	22	22	22	-	22	22	-	56
DISTANT FISHING LESS 100	4	-	4	4	-	4	4	16
DISTANT FISHING OVER 100	91	91	91	-	91	91	-	364
TOTAL	122	113	117	9	113	117	9	456

FIGURES



PHYSICAL MAP OF NIGERIA

FIG: 1

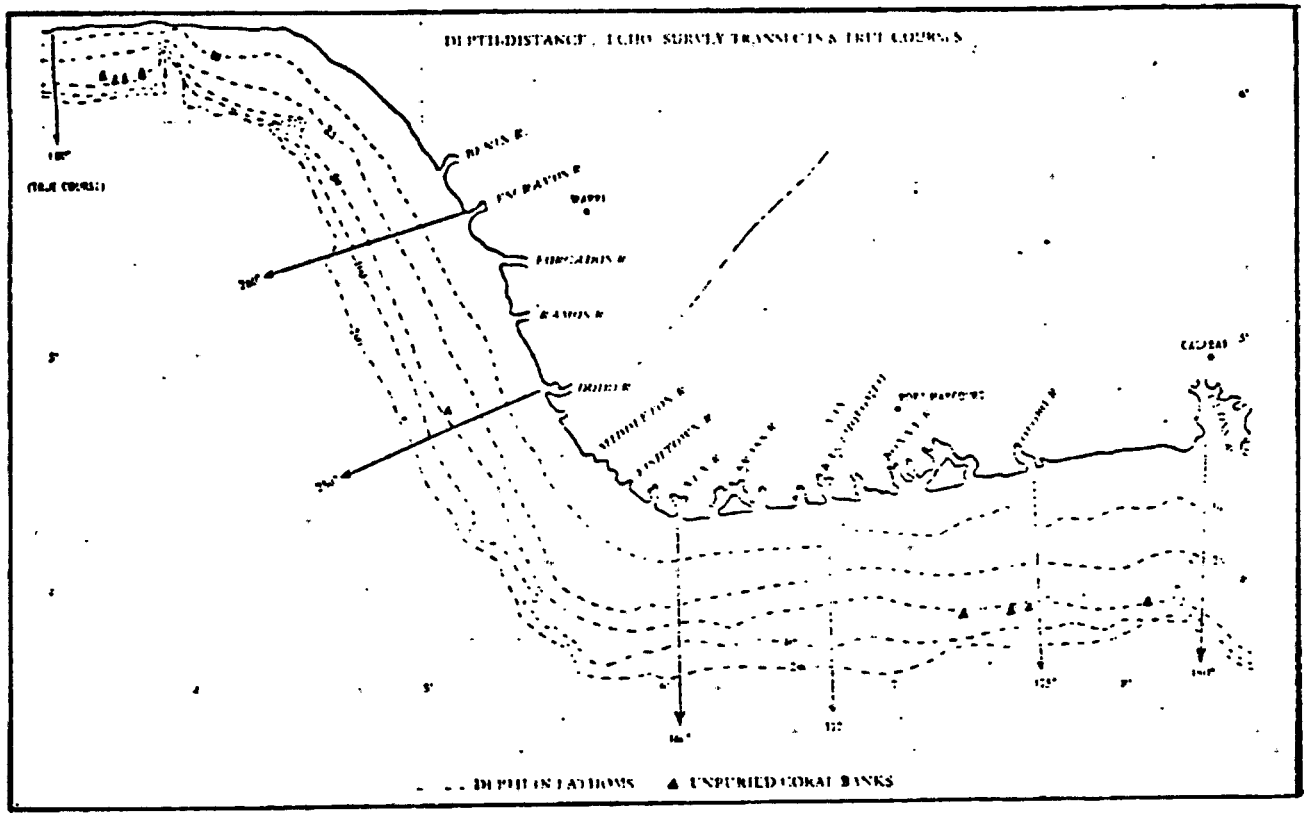


Fig. 1 The Nigerian continental shelf, with depth contours in fathoms, and unburied coral banks (based on sheet D200/375/7-74 by Federal Surveys Nigeria 1974)

Fig. Location of estuaries and major coastal settlements with good fishing prospects

STRUCTURAL PATTERN OF NIGERIAN FISHERIES.

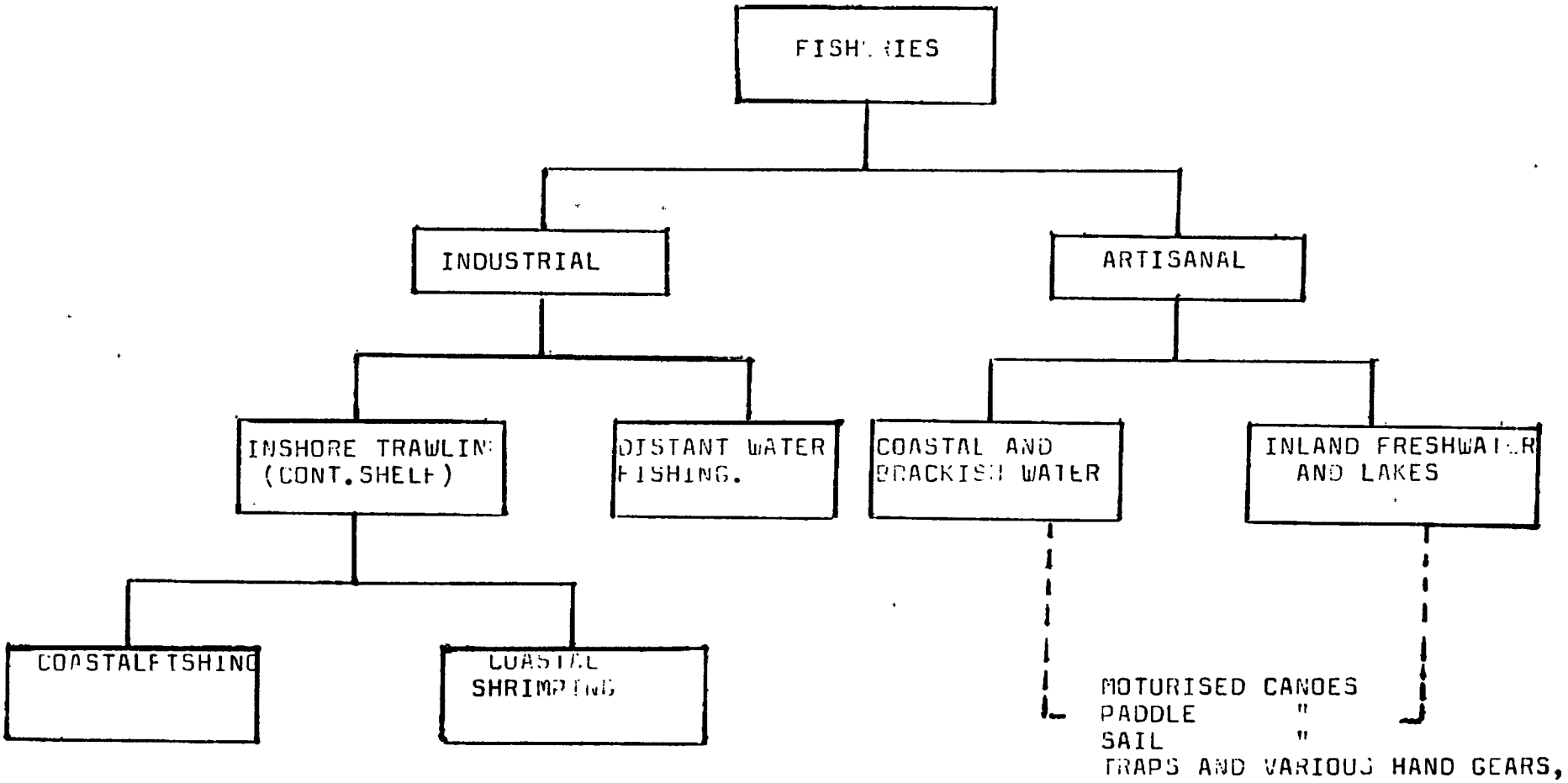
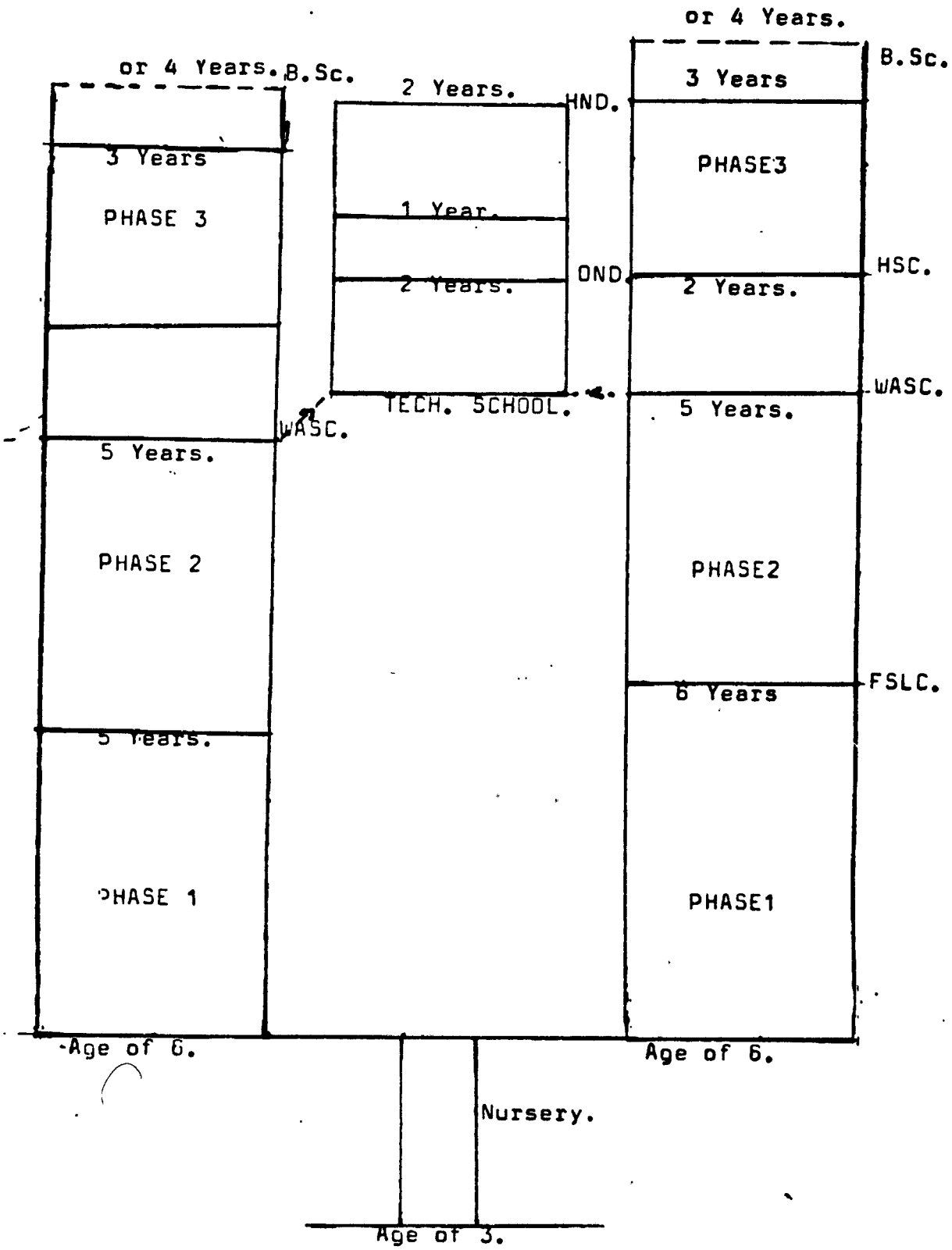


FIG. 4

EXISTING EDUCATIONAL SYSTEM NOW PHASING OUT.



FSLC - First School Leaving Certificate.

WASC - West African School Certificate.

HSC - Higher School Certificate.

OND - Ordinary National Diploma.

HND - Higher National Diploma.

FIG: 5

Illustrations, Definations and Notes on Figures 6 & 7.

Documented Sea-Service Period.
Documented Workshop and Laboratory.

Period recommended for attendance in an approved school for:

- Endorsement Course.
- Preparatory Course.
- OR. National Diploma Course.

MOT: Ministry of Transport.

Note: At the end of each course MOT oral or written engineering knowledge examination will be necessary for the award of certificate of competency.

RC: Remedial Course.

SK. Skipper.

FVE. Fishing Vessel Engineer.

WS. Workshop.

LAB. Laboratory.

OND. Ordinary National Diploma.

NCVE. Near Coastal Voyage Engineer.

NCVM. Near Coastal Voyage Master.

MI. First Mate.

MII. Second Mate.

WKC. Watch Keeping Certificate.

C/E. Chief Engineer Officer.

2/E. Second Engineer Officer.

C/L. Chief Electrician/Electronic Officer.

2/L. Second " " "

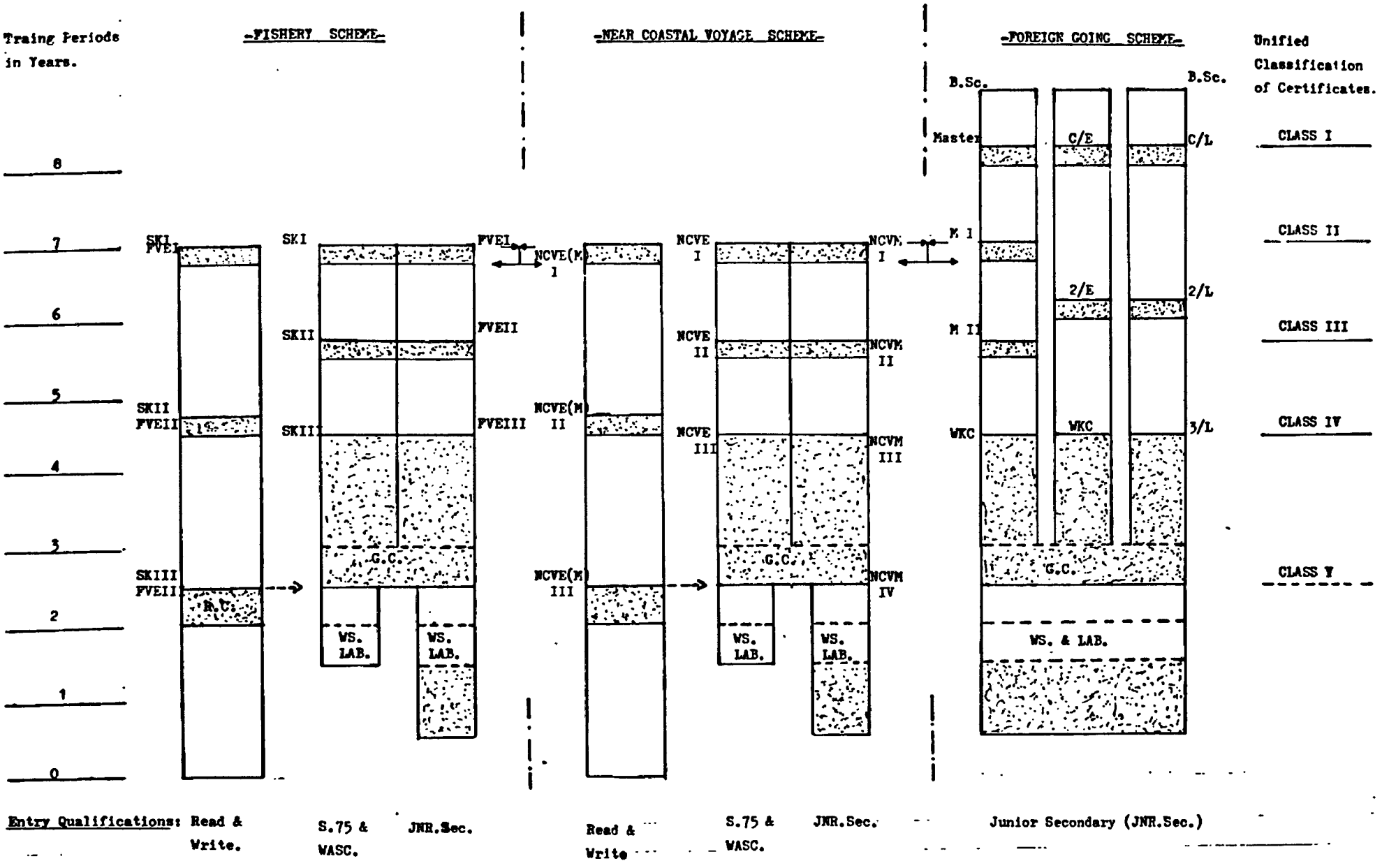
3/L. Third " " "

WASC. Weat African School Certificate.

S.75 West African School Leaving Testimonial.

Note: Reference to the text, all certificates will be Class I, II, III, IV, and V when applicable with the prefix of the particular scheme/category.

PROPOSED HARMONISED NATIONAL MARINE TRAINING SCHEMES AND UNIFIED CERTIFICATION.



See page 107 for definitions and illustrations

HARMONIZATION OF NATIONAL TRAINING OF NAVIGATORS

Training Periods in Years.	Foreign Going	Near Coastal Voyage	Fishery	Proposed Basic Certificate
8	MASTER	-	-	CLASS I
7	FIRST MATE	NCVM I	SK I	CLASS II
6	-	-	-	-
5	SECOND MATE	NCVM II	SK II	CLASS III
4	WATCH KEEPING CERTIFICATE	NCVM III	SK III	CLASS IV

Fig.8

HARMONIZATION OF NATIONAL TRAINING FOR MARINE ENGINEERS

Training Period in Years	Foreign Going	Near Coastal Voyage	Fishery	Proposed Basic Certificate
8	Chief Engineer	-	-	Class I
7	-	NCVE I	FVE I	Class II
6	Second Engineer	-	-	-
5	Third Engineer	NCVE II	FVE II	Class III
4	Watch Keeping Certificate	NCVE III	FVE III	Class IV

Fig.9

APPENDICES

SEA FISHERIES ACT 1971
No. 30

Commencement

[10th *June* 1971]

THE FEDERAL MILITARY GOVERNMENT hereby enacts as follows—

Licensing of motor fishing boats

1—(1) Subject ot the provisions of this section, no person shall operate or navigate any motor fishing boat within the territorial waters of Nigeria unless a licence in respect of that vessel has been issued to the owner thereof.

(2) Any person operating or navigating or causing to be operated or navigated a motor fishing boat in contravention of subsection (1) of this section shall be guilty of an offence under this Act and on conviction shall be liable to imprisonment for one year, or to a fine of N1000 for each day during which the offence continues, or to both such fine and imprisonment.

(3) The provisions of this section shall not apply to any motor fishing boat entering the territorial waters of Nigeria not for fishing or the disposal of fish, but solely for re-fuelling at any port or for shelter, or solely because the motor fishing boat is in distress or there is any other emergency.

Application for a licence

2—(1) Any person, being the owner of a motor fishing boat, may apply to a licensing office for a licence in respect of the motor fishing boat.

(2) An application for a licence shall be in such form and manner as may be prescribed and shall—

(*a*) contain the particulars and descriptions of the motor fishing boat in respect of which the application is made; and

(*b*) a statement in detail as to—

(*i*) the methods of taking fish that are to be employed,

(*ii*) the area within which it is proposed that the motor fishing boat shall operate, and

(*iii*) the arrangements that are to be made for the preservation and marketing of the catch in Nigeria.

Grounds for issue of a licence, etc

3—(1) On being satisfied that—

(*a*) an application for a licence has been made in the prescribed manner and contains all the information that is required under section 2 of this Act;

(*b*) the prescribed fees have been paid;

(*c*) the applicant is the lawful owner of the motor fishing boat in respect of which the application is made, and that he is a fit and proper person to be granted a licence; and

(*d*) the operation of the motor fishing boat in the territorial waters of Nigeria is not likely to be prejudicial to the interests of sea fishing industry in Nigeria,

the licensing officer shall issue a licence in respect of the motor fishing boat.

(2) Subject to the provisions of this Act, a licence shall be in the prescribed form and may be issed subject to such conditions as the licensing officer may think fit to impose, and any conditions so imposed shall be endorsed on the licence.

(3) A licence shall be a yearly licence or a quarterly licence, and—

(*a*) if the licence is a yearly licence, it shall expire on the 31st day of December in the year in which it is issued; and

(*b*) if the licence is a quarterly licence, it shall expire on the 31st day of March, the 30th day of June, the 30th day of September or the 31st day of December, whichever day falls next after the date of the issue of the licence.

(4) Where the ownership of a motor fishing boat in respect of which a licence has been issued is transferred from one person to another person, the licence shall not be valid in respect of the new owner of the vessel until such time as the licensing officer has approved the transfer of the ownership of the motor fishing boat and has endorsed the licence ot that effect.

(5) A licensing officer may, without assigning any reason—

(*a*) cancel a licence, or

(*b*) suspend a licence for such period as he thinks fit.

Renewal of a licence.

4. The provisions of this Act relating to application for a licence and the issue of a licence shall apply in relation to an application for the renewal of the licence and to such renewal.

Appeals.

5—(1) Any person aggrieved by any refusal by a licensing officer to issue or renew a licence or by the cancellation or suspension of a licence or by any condition endorsed on a licence may, within fourteen days of receiving notice of the refusal, cancellation, suspension or endorsement, appeal to the Commissioner in respect thereof.

(2) After considering any appeal made under subsection (1) of this section the Commissioner shall take such decision thereon as he deems fit and the licensing officer shall give effect thereto, as may be necessary.

(3) The decision of the Commissioner on any appeal under this section shall be final.

Returns.

6. The owner of a motor fishing boat in respect of which a licence has been issued shall—

(*a*) render to a licensing officer such periodical returns concerning the operation of the motor fishing boat as may be prescribed; and

(*b*) permit a licensing officer or any person authorised in writing by a licensing officer to inspect the catch of the motor fishing boat either before or after the catch has been landed and shall give the licensing officer or that person all reasonable facilities for the inspection of the catch.

Enforcement of the Act.

7—(1) An authorised person may, within the territorial waters of Nigeria, for the purpose of enforcing any provision of this Act—

(*a*) require the owner or the person in charge of a motor fishing boat in respect of which a licence has been issued, to exhibit his licence, fishing apparatus and catch;

(*b*) require the owner or the person in charge of any other motor fishing boat or any person engaged in fishing to exhibit his fishing apparatus and catch;

(*c*) go on board of any fishing boat and search and examine the fishing boat and any fishing apparatus that may be therein;

(*d*) where there is reasonable suspicion that an offence under this Act has been committed, take the alleged offender and the motor fishing boat, fishing apparatus and catch to the most convenient port or police station.

(2) The powers vested in an authorised person under subsection (1) of this section may be exercised by him without warrant, summons or other process.

(3) Any fishing boat or apparatus taken from an alleged offender under the provisions of paragraph (*d*) of subsection (1) above may be detained pending the trial of the alleged offender, and the catch may be sold and the proceeds of the sale detained pending such trial.

(4) Any vessel, apparatus or money detained under subsection (2) of this section shall, unless forfeited under the provisions of section 10 of this Act, be returned to the person from whom the same was taken or to the lawful owner thereof.

(5) If a vessel, after detention under subsection (2) of this section, proceeds to sea before it is released by an authorised person or a court, the master of the vessel and also the owner and any person who sends the vessel to sea, if the owner or person is privy to the master's offence, shall be guilty of an offence under this Act.

(6) In this section "an authorised person" means—

(*a*) a licensing officer;

(*b*) any commissioned officer in the Nigerian Army, Navy or Air Force;

(*c*) a police officer not below the rank of assistant superintendent of police;

(*d*) a customs officer not below the rank of assistant preventive superintendent;

1962 No. 30

(*e*) a surveyor or examiner appointed under the provisions of the Merchant Shipping Act, 1962; and

(*f*) any other person authorised in writing by the Commissioner in that behalf.

Prohibited method of fishing

8. No person may take or destroy or attempt to take or desroy any fish within the territorial waters of Nigeria by any of the following methods, that is,—

(*a*) by the use of any explosive substance; or

(*b*) by the use of any noxious or poisonous matter.

Offences

9—(1) Any person who—

(*a*) contravenes or fails to comply with any of the provisions of this Act;

(*b*) contravenes or fails to comply with any requirement made under this Act; or

(*c*) contravenes or fails to comply with any condition endorsed on a licence,

shall be guilty of an offence under this Act.

(2) Any person who is guilty of an offence under this Act for which no other penalty is specifically provided shall on conviction be liable to a fine of N200 or to imprisonment for six months or to both such fine and imprisonment; and where the offence is a continuing offence the person shall be liable to a further sum of N100 for each and every day during which such failure continues, the liability to such further sum to commence from the day following the last conviction, or from such day thereafter as the court may order.

Forfeiture, etc.

10. A court before which any person is convicted of an offence under this Act may—

(*a*) order the forfeiture to the Government of the Federation of any fishing boat, apparatus or catch employed in the commission of or derived from any act in respect of which that person is so convicted;

(*b*) where the fishing boat employed in the commission of the offence is a motor boat in respect of which a licence had been issued, cancel the licence or suspend the licence for such time as the court may think fit.

Regulations

11—(1) The Commissioner may make regulations—

(*a*) for furthering the interests of sea fishing industry in Nigeria, and

(*b*) for giving effect to the provisions of this Act.

(2) Without prejudice to the generality of the foregoing provisions of this section regulations made under this section may—

(*a*) regulate, prohibit or restrict the taking of fish in any specific area within the territorial waters of Nigeria;

(*b*) prohibit or restrict the use of any fishing boat, apparatus, or method of taking fish that is considered harmful to the sea fishing industry in Nigeria;

(*c*) prescribe limits to the size of nets or the mesh of nets that may be employed in the taking of fish within the territorial waters of Nigeria, or in any specified area therein;

(*d*) prescribe the form of a licence and the amount of fee to be paid in respect of a licence;

(*e*) provide for the inspection of buildings and premises used for the curing, preservation, storage or sale of fresh, cured or preserved fish;

(*f*) provide for the seizure and destruction of any fresh, cured or preserved fish that is unfit for human or animal consumption;

(*g*) provide for the exemption of specified persons from any provision of this Act where such exemption is considered necessary for scientific or experimental purposes in connection with the development of the sea fishing industry in Nigeria or otherwise for the furtherance of the national interest of the Federation;

(*h*) regulate any other matter relating to the conservation and protection of the stocks of sea fish.

Interpretation.

12. In this Act, unless the context otherwise requires—

"Commissioner" means Federal Commissioner charged with responsibility for fisheries;

"fish" means any aquatic creature whether fish or not, and includes shellfish, crustaceans, turtles and aquatic mammals;

"fishing boats" means any ship, boat, canoe or other craft used for the taking of fish for sale or barter;

"licence", in relation to a motor fishing boat, means a licence issued under section 2 of this Act;

"licensing officer" means the Director of the Federal Department of Fisheries or any person appointed by him to carry out any of the provisions of this Act;

"motor fishing boat" means any fishing boat propelled by means of steam, internal combustion or other machinery except one or more portable outboard engines;

"port" includes place and harbour;

"prescribed" means prescribed by regulations under this Act;

"taking fish" includes any method of catching fish;

"territorial waters of Nigeria" has the same meaning as in section 1 of the Territorial Waters Act 1967.

1967 No. 5.

Repeal and transitional provisions.

13—(1) Subject to the provisions of this section, the enactments set out in the Schedule to this Act are hereby repealed.

(2) Any licence issued under any enactment mentioned in the Schedule to this Act, being a licence that was in force immediately before the date of the commencement of this Act, shall from that date have effect as if it were a licence issued under this Act.

(3) Any licence, which under subsection (2) of this section has effect as if it were a licence issued under this Act, shall from the date of commencement of this Act be read and construed with such adaptations and modifications as may be

necessary for the purposes of this Act; subject to section 5 of this Act, the licence may on or after that date be cancelled or suspended or be made subject to new conditions, by a licensing officer.

Citation and application.

14—(1) This Act may be cited as the Sea Fisheries Act 1971.
(2) This Act shall apply throughout the Federation.

SCHEDULE

(*section* 13)

ENACTMENTS REPEALED

PART A—ACTS AND LAWS

1961 No. 30	Sea Fisheries (Lagos) Act 1961.
WRL. No. 12 of 1965	Sea Fisheries Law 1965.

PART B—SUBSIDIARY INSTRUMENTS

W.S.L.N. 120 of 1967	Sea Fisheries (Motor Fishing Boats Licensing) Regulations 1967.
L.S.L.N. of 1969	Sea Fisheries (Licensing) Regulations 1969.

MADE at Lagos this 10th day of June 1971.

MAJOR-GENERAL Y. GOWON,
Head of the Federal Military Government,
Commander-in-Chief of the Armed Forces,
Federal Republic of Nigeria

EXPLANATORY NOTE

(*This note is not part of the above Decree but is intended to explain its purpose*)

The Act makes provisions for controlling, regulating and protecting sea fisheries in the territorial waters of Nigeria.

2. It provides that no person shall operate or navigate any motor fishing boat within the territorial waters of Nigeria unless a licence is issued under the Act.

3. The Act empowers the Commissioner to make regulations for the purposes of the Act and such regulations may prescribe the fee payable in respect of a licence.

4. The Act repeals the existing state laws on sea fisheries.

APPENDIX 1.2

Sea Fisheries Act

L.N. 99 of 1971

Sea Fisheries (Licensing) Regulations 1971

Commencement : 6th December 1971

In exercise of the powers conferred by section 3 of the Sea Fisheries Act 1971, and of all other powers enabling me in that behalf I, Josiah Onyebuchi Johnson Okezie, Federal Commissioner for Agriculture and Natural Resources, hereby make the following regulations—

Application for a licence

1971 No. 30

1—(1) Subject to the provisions of section 3 of the Sea Fisheries Act 1971 (which specifies certain information, etc. to be furnished by an applicant) an application under that section for a licence to operate or navigate a motor fishing boat within the territorial waters of Nigeria shall be made in writing by the owner of the vessel to a licensing officer; and the application shall state—

(*a*) if the applicant is an individual, the name, nationality and address of the applicant;

(*b*) if the applicant is a partnership, the name, nationality and address of each partner; or

(*c*) if the applicant is a company of other body corporate, the name, nationality and address of each director of the applicant; and also the address of the place of business of the applicant in Nigeria.

(2) The application shall also contain a statement as to the tonnage of the motor fishing boat in respect of which the application is made.

(3) Where the applicant is a company or other body corporate, the application shall be accompanied by a certified copy of the memorandum of association and articles of association or other document relating to the constitution of the company or body corporate.

Forms of application and of licence.

2—(1) Every application for, or for the renewal of, a licence shall be in Form A in Schedule 1 to these regulations.

(2) Every licence shall be in Form B in Schedule 1 to these regulations.

Fees for issue or renewal of a licence.

3—(1) The fees specified in Schedule 2 to these regulations shall be charged for the issue or renewal of a licence.

(2) The said fees shall be paid by the applicant to the licensing officer at the time when the application for the licence or the renewal is made, but shall be refunded to the applicant if the application is refused.

Offences.

4—(1) If any person in furnishing any information for the purposes of these regulations makes any statement which he knows to be false in any material particular, or recklessly makes any statement which is false in any material particular, that person shall be guilty of an offence under these regulations and on conviction shall be liable to a fine not exceeding N400 or to imprisonment for a term not exceeding six months, or to both such fine and imprisonment.

(2) Where an offence under these regulations committed by a body corporate is proved to have been committed with the consent or connivance of, or to be attributable to any neglect on the part of, any director, mananger, secretary, or other similar officer of the body corporate, or any person who was purporting to act in any such capacity, he, as well as the body corporate, shall be guilty of that offence and liable to be proceeded against and punished accordingly.

Exemption of fishing canoes.

5. Nothing in these regulations shall apply to any fishing canoe, whether or not fitted with engine.

Citation and extent.

6. These regulations may be cited as the Sea Fisheries (Licensing) Regulations 1971 and shall apply throughout the Federation.

SCHEDULE 1

(*Regulation* 2)

FORMS

FORM A

Sea Fisheries Act 1971

APPLICATION FOR ISSUE OR RENEWAL OF A LICENCE

I/We.....
(*Full name in block capitals*)

hereby apply for a licence under section 3 of the Sea Fisheries Act 1971 in respect of the motor fishing boat the particulars and descriptions of which are hereinafter stated.

2. (*Renewals only*) Particulars of the applicant's current licence are as follows—

No.....

Date of issue.....

3. The full name, address and nationality of the applicant; or if the applicant is a partnership, of every partner; or, if the applicant is a company or other body corporate, of every director are as follows—

.....

.....

.....

.....

4. The particulars of the methods of catching fish that are to be emloyed and the area within which it is proposed that the motor fishing boat shall operate and the arrangements that are to be made for the preservation and marketing of the catch in Nigeria are as follows—

.....

.....

.....

.....

5. The tonnage of the motor fishing boat in respect of which this application is made is—

.....

.....

**Signature of applicant*

Note:

*Where the application is made by a company, the signature shall be that of the Secretary to the company and the application must be accompanied by a certified copy of the memorandum of association and articles of association of the company.

FORM B

Sea Fisheries Act 1971

LICENCE TO OPERATE OR NAVIGATE A MOTOR FISHING BOAT

Serial No.:

The motor fishing boat known as.....

registered number.....and owned by.....

.....of.....

is hereby licensed to be operated or navigated within the territorial waters of Nigeria from the.....day of.....19.....to the.....day of

.....19.....both dates inclusive.

2. This licence is issued subject to the following conditions, that is—

.....

.....

.....

.....

ISSUED at.....this.....day of.....19

Fee paid: N k

.....

Licensing Officer

SCHEDULE 2

(Regulation 3)

FEES CHARGEABLE FOR ISSUE OR RENEWAL OF A LICENCE

Gross Tonnage of Fishing Vessel	*Annual Licence* N	*Quarterly Licence* N
Under 20 tons	40	12
20 tons to 199 tons	100	30
200 tons to 999 tons	200	60
1,000 tons and above	400	120

MADE at Lagos this 6th day of December 1971.

J.O. OKEZIE,
Federal Commissioner for
Agriculture and Natural Resources

EXPLANATORY NOTE

(This note does not form part of the above Regulations but is intended to explain their effect)

The Regulations prescribe the form of application for a licence or renewal of a licence, to operate or navigate a motor fishing boat within the territorial waters of Nigeria and the particulars which must be stated in such application. The Regulations also prescribe the form of licence and the fees which must be paid for the issue or renewal of any licence.

2. Fishing canoes are exempted from the provisions of the Regulations.

Sea Fisheries Act

L.N. 53 of 1972

Sea Fisheries (Fishing) Regulations 1972

Commencement: 15th August 1972

In exercise of the powers conferred by section 11 (1) of the Sea Fisheries Act 1971, and of all other powers enabling me in that behalf, I, Josiah Onyebuchi Johnson Okezie, hereby make the following Regulations—

1. No vessels (except canoes) shall fish within the first two nautical miles of the waters of the Nigerian continental shelf. — Restriction on fishing in certain areas etc

2. Trawlers shall not use a codend with stretch mesh size of less than 3 inches (76 mm) when trawling for fish in the inshore waters or less than 1¾ inches (44 mm) when trawling for shrimps in areas approved for shrimp trawling. — Trawling in inshore waters.

3. No shrimp trawling is permitted in the inshore waters of Lagos—West fishing grounds. — Shrimp trawling

4—(1) Fishing vessles licensed to fish in the territorial waters of Nigeria must not dump edible and marketable sea products at sea. Accordingly fish landed by shrimp trawlers must not be less than 75 per cent by weight of the total landings including the head-on weight of the shrimps landed. — Dumping of edible and marketable sea products, and export thereof.

(2) All the catch must be landed at port and no part of it may be exported or shipped away from Nigeria at sea.

(3) Any part of the catch for export shall be exported in the usual manner and subject to any foreign exchange regulations for the exportation of such commodities from Nigeria.

5—(1) Any person who contravenes or fails to comply with any of the provisions of these regulations shall be guilty of an offence and be liable to a fine of N200 or to imprisonment for six months or to both such fine and imprisonment. — Offences.

(2) Where an offence under these regulations which has been committed by a body corporate is proved to have been committed by the consent or connivance of, or to be attributable to any neglect on the part of any director, manager, secretary or other similar officer of the body corporate, or any person who was purporting to act in any such capacity, he, as well as the body corporate shall be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

6. In these regulations— — Interpretation.

"the inshore waters" is a reference to that part of the continental shelf with depth not more than 50 metres (27 fathoms);

"the Lagos—West fishing grounds" is a reference to that area of the continental shelf adjacent to the Lagos and Western States;

"shrimp" includes prawn and other similar edible crustacea; and

"the territorial waters of Nigeria" has the meaning assigned thereto in section 1 of the Territorial Waters Act 1967. — 1967 No. 5.

7. These Regulations may be cited as the Seas Fisheries (Fishing) Regulations 1972. — Citation.

MADE at Lagos this 15th day of August 1972.

J.O.J. OKEZIE,
Federal Commissioner for Agriculture and Natural Resources

Nigerian Shipping Laws

EXPLANATORY NOTE

(This note does not form part of the Regulations but is intended to explain its effect)

The Regulations, among other things, prohibit fishing by vessels (except canoes) in certain areas of the Nigerian Continental shelf and also restrict trawling for shrimp in the in-shore waters of Lagos-West fishing grounds.

APPENDIX 1.4

L.N.75 of 1963

The Merchant Shipping (Fishing Boat) Regulations, 1963

Commencement: 4th July, 1963

In exercise of the power conferred by section 427 of the Merchant Shipping Act, 1962, the Federal Minister of Transport hereby makes the following regulations—[1]

Part I—General

Short title and application

1. These regulations may be cited as the Merchant Shipping (Fishing Boat) Regulations, 1963 and shall apply to all power driven fishing boats except—

(a) power driven small craft, as defined in the Power Driven Small Craft Regulations, 1963;

(b) boats used solely for fishing for pleasure; and

(c) fishing boats properly registered in another country and holding a valid certificate of survey or other safety certificate issued by a recognised authority in that country and deemed to be the equivalent of a certificate issued under these regulations.

Interpretation

2. In these regulations, unless the context otherwise requires,

"approved" means approved by the Government Inspector of Shipping;

"bouyant apparatus" means flotation equipment (other than lifeboats, lifebouys and lifejackets) designed to support persons who are in water;

"Collision Regulations" means the International Regulations for Preventing Collisions at Sea, 1948;

"Fishing boat" has the same meaning as assigned in section 2 of the Act;

"lifecraft" means a properly constructed raft, capable of being inflated or otherwise designed to support persons out of water;

"Surveyor" means a person appointed as such under section 146 of the Act.

Fishing boats to be surveyed and registered

3.—(1) Every owner or his agent, or the person in charge, of any fishing boat shall, within six months of the commencement of these regulations, cause such fishing boat to be surveyed and registered in accordance with these regulations, and shall thereafter cause the said boat to be surveyed at intervals not exceeding twelve months.

(2) Every owner, agent or person in charge as aforesaid who, after a period of six months from the commencement of these regulations operates any fishing boat without being in possession of a valid certificate of survey and registration in respect of that boat, shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding two hundred naira or to imprisonment for a term not exceeding six months or both.

Certificate of registration

4.—(1) Every owner of his agent, or the person in charge, of every fishing boat shall obtain on payment of the prescribed fee from such officer as the Minister may, by notice in the Gazette, appoint to be Registrar of fishing boats (hereinafter in these regulations referred to as the Registrar), a certificate of registration in the form prescribed in the First Schedule to these regulations.

[1] *See* p. 178, *ante*.

(2) No fishing boat will be registered under these regulations unless there is produced to the Registrar at the time of registration a valid certificate of survey as provided in Part IV of these regulations.

(3) The certificate of registration shall always be in the possession of the person in charge of each fishing boat and it shall be produced on demand to the Registrar, any Police Officer, Harbour Master, Officer of Customs or Surveyor and any person who fails, neglects or refuses to produce such certificate when required to do so shall be guilty of an offence and shall, on conviction, be liable to a fine of ten naira or one month imprisonment.

Registration numbers

5.—(1) Upon registration, each fishing boat will be allocated a registration number, and such number shall consist of the initial letters of the port of registration as prescribed in paragraph (2) of this regulation followed by one or more numberals.

(2) The places where fishing boats may be registered and their appropriate initial letters shall be—

(i) Lagos ..... LA
(ii) Warri ..... WA
(iii) Port Harcourt ..... PH
(iv) Calabar ..... CA
(v) Lokoja ..... LK
(vi) Onitsha ..... ON

(3) The registration number shall be inscribed in contrasting colours on each side of the bow in letters and figures of at least 18 inces in height or as near to that height as the freeboard of the boat will allow and, if the fishing boat is equipped with a funnel or sail, the registration number shall also be inscribed thereon.

(4) The owner, agent or person in charge, of any fishing boat who permits that boat to operate without the registration numbers being clearly marked on it in accordance with the provisions of this regulation shall be guilty of an offence and, on conviction, shall be liable to a fine not exceeding ten naira or to imprisonment for a term not exceeding one month.

Keeping of register

6. The Registrar shall keep a register book containing the particulars of every fishing boat registered by him in such manner as may be directed by the Minister.

Issue of certificates

7.—(1) Before a certificate of registration is issued the Registrar may require the person making the application to produce proof of ownership of the fishing boat in question.

(2) The original copy of the certificate of registration shall be delivered to the person making the application, the duplicate copy shall be despatched to the Government Inspector of Shipping and the triplicate copy shall be retained by the Registrar for record purposes.

Endorsement of certificate for alterations

8.—(1) Every alteration in the dimensions, structure or engines and every change of name or ownership of any fishing boat shall be reported to the Registrar who shall, upon payment of the appropriate fee set out in the Second Schedule to these regulations, endorse the certificate of registration accordingly, ensuring that the triplicate copy in his possession is also endorsed and the entry in the register amended.

(2) Where endorsement as aforesaid is carried out at a port of registration other than that at which the original certificate was issued, the Registrar making the endorsement shall immediately transmit the details of such endorsement to

the Registrar at the original place of registration for action as in paragraph (1) of this regulation on the triplicate copy of the certificate and the register.

(3) Every endorsement on a certificate of registration shall be reported to the Government Inspector of Shipping by the Registrar making the endorsement.

(4) The owner, agent or person in charge of any fishing boat who fails to report to the Registrar after making any of the alterations as aforesaid shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding ten naira or imprisonment for a term not exceeding one month.

Change of place of registration

9. If the owner of any fishing boat wishes for any reason to change the registration from one port to another, he may apply to the Registrar at the proposed place of registration to have a new certificate of registration issued and on payment of the appropriate fee set out in the Second Schedule to these regulations, the Registrar shall issue a new certificate, retain the old certificate for transmission to the Registrar at the original place of registration for cancellation and the deletion of that boat from his registrar, and shall report the details to the Government Inspector of Shipping.

Part III—Certificates of Competency

Certificated crew for fishing boat

10. No sea-going fishing boat shall proceed to sea from any place in Nigeria unless her crew on board are certificated persons in accordance with the provisions of this Part.

Manning of fishing boats

11.—(1) Every sea-going fishing boat to which this Part applies shall carry on board for service certificated persons as follows—

(a) sea-going fishing boat not exceeding 60 feet in length, one Coxswain (Fishing) and one Motorman (Fishing) Grade II; but if such boat is intended to remain at sea for more than twelve hours continously, two such Coxswains and Motormen shall be carried;

(b) sea-going fishing boat over 60 feet but not exceeding 100 feet in length, one Mate (Fishing) one Coxswain (Fishing) one Motorman (Fishing) Grade I and one Motorman (Fishing) Grade II;

(c) sea-going fishing boat over 100 feet in length, one Skipper (Fishing), one Mate (Fishing), one Third Class Engineer and one Motorman (Fishing) Grade I; and

(d) in addition there shall at all times be sufficient men on deck to ensure that the boat is seaworthy.

(2) Every fishing boat operating on inland waters only shall carry on board for service, Rivermasters, Quartermasters, Rivermen, Engineers, Engineering Assistances or Motormen in accordance with the provisions of the Merchant Shipping (Manning) Regulations, 1963, relating to inland waters vessels of similar size and horsepower.

(3) The owner or his agent or any person in charge of any fishing boat to which these regulations apply, operating from any place in Nigeria without the requisite number and grades of certificated persons on board as provided by this regulations shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding two hundred naira or to imprisonment for a term not exceeding six months or both.

Certificates of competency

12. Persons who are required by these regulations to be certificated shall hold certificates of competency issued under these regulations or under section 7 of the Act.

Permits in place of certificates

13. The Government Inspector of Shipping may, and subject to such conditions as he may think fit to impose, issue to any person who, in his opinion, is suitably qualified, a permit authorising the holder thereof to serve as a certificated person on board any fishing boat to which these regulations apply and such permit shall, for the purpose of these regulations and for the period stated thereon, be deemed to be the equivalent of a certificate of competency

Endorsement of Engineering Assistants' Certificates

14. Any person holding a certificate of competency as Engineering Assistant for inland waters craft may have such certificate endorsed as hereinafter provided, and such endorsed certificate shall be deemed to be the equivalent of a Motorman's (Fishing) Grade I certificate for the purposes of these regulations.

Conditions for qualifying examination as Coxswain

15 No person shall be examined for a certificate of competency as Coxwain (Fishing) unless—

(a) he is 18 years of age or over and literate;

(b) he has served for two years as deck hand or able seaman at sea in sea-going fishing boats;

(c) he holds a certificate by a Skipper, Mate or Coxswain to the effect that he can steer a boat efficiently by compass and that he has done so regularly as part of his sea-going duties;

(d) he holds a certificate showing that he has passed an eyesight test in accordance with the provisions of section 8 of the Act; and

(e) he holds a certificate of good character from his employer;

except that a person holding a certificate of competency as Rivermaster or Quartermaster granted under section 7 of the Act and has completed a further twelve months at sea in sea-going fishing boats in a deck capacity may be examined if he produces an eyesight test certificate as aforesaid and a certificate of good character from his employers.

Conditions for qualifying examination as Mate

16. No person shall be examined for a certificate of competency as Mate (Fishing) unless—

(a) he is twenty years of age or over;

(b) he is the holder of a certificate of competency as Coxswain (Fishing) and has served as such for at least two years in sea-going fishing boats;

(c) he holds an eyesight test certificate as stated in paragraph *(d)* of regulation 15;

(d) he holds a certificate of good character from his employers.

Conditions for qualifying examination as Skipper

17 No person shall be examined for a certificate of competency as Skipper (Fishing) unless—

(a) he is twenty-four years of age or over;

(b) he is the holder of a certificate of competency Mate (Fishing) and has served as such for at least two years;

(c) he holds an eyesight test certificate as stated in paragraph *(d)* regulation 15; and

(d) he holds a certificate of good character from his employers.

Conditions for qualifying examination as Motorman, Grade II

18.— (1) No person shall be examined for a certificate of competency as Motorman (Fishing) Grade II unless—

(a) he is eighteen years of age or over and literate;

(b) he has served at sea in a sea-going fishing boat in a junior engine room capacity for at least one year; and

(c) he holds a certificate of good character from his employers.

(2) Every such certificate shall be endorsed with the type of engine which the holder is competent to operate.

(3) A candidate for such certificate may request the examiner to allow his examination to cover more than one type of engine, and if the examiner is satisfied as to the candidate's competency, he may give him a general examination covering all types of engines and the certificate in this case may be endorsed for "All Types of Engine" but may also be limited as to horsepower.

(4) After being granted an initial certificate, candidates may at any time thereafter apply to have their certificate endorsed for any other type of engine other than that specified originally on the certificate. In this case they will be given a further examination and will be required to pay the prescribed fee.

(5) Any person holding a Motorman's (Fishing) Grade II certificate of competency who operates or takes charge of a fishing boat engine of a type for which his certificate is not endorsed shall be guilty of an offence and, on conviction, shall be liable to a fine not exceeding ten naira or to imprisonment for a term not exceeding one month.

Conditions for qualifying examination as Motorman, Grade I

19. No person shall be examined for a certificate of competency as Motorman (Fishing) Grade I unless—

(a) he is twenty-two years of age or over;

(b) he holds a certificate of competency as Motorman (Fishing) Grade II, and has served as such for at least four years in sea-going fishing boats, and

(c) he holds a certificate of good character from his employers.

Conduct of examinations

20. Examinations shall be conducted in such manner as the Goverment Inspector of Shipping may direct and, so far as it is applicable, in accordance with the provisions of the Merchant Shipping (Examination for Certificates of Competency, Deck) and (Certificates of Competency, Engine room) Regulations, 1963.

Examiners

21. Examiners for certificates of competency for the purposes of these regulations shall be such examiners as may be appointed in accordance with the provisions of section 14 of the Act.

Grant of certificate of competency

22. Any person who has satisfied an examiner as to his competency and is otherwise qualified in accordance with these regulations, shall be granted a certificate of competency in such form as may be approved by the Minister.

Application for examination

23. Any person desiring to be examined for a certificate of competency under these regulations shall apply to any examiner on the proper application form which may be obtained from any examiner.

Endorsement of Engineering Assistant's certificate

24. The holder of an Engineering Assistant's certificate of competency may have such certificate endorsed for service in sea-going fishing boats, upon providing proof of six months further service at sea in sea-going fishing boats in a junior engine room capacity.

Proof of service at sea

25. Candidates shall be required to produce in the form of testimonials or otherwise, proof of the qualifications required by these regulations. Such testimonials shall include evidence that the candidate has performed the necessary sea service and such service must actually have been performed at sea. Service in fishing boats whilst laid up or in port or service in fishing boats plying on inland waters only shall not normally be allowed to count towards any qualifying sea service.

Fees for certificates of competency

26. Candidates for certificates of competency under these regulations shall, before being examined, pay to the exaimner the requisite fee as set out in the Second Schedule to these regulations.

Loss of certificate, etc

27.—(1) When a certificate of competency granted under these regulations is lost, stolen, destroyed or defaced, a replacement thereof may be obtained in the manner set out in regulation 19 of the Merchant Shipping (Examination for Certificate of Competency, Deck) Regulations, 1963 upon payment of the fee prescribed.

(2) If the holder of a certificate changes his name he must at once return the certificate to an examiner for the new name to be endorsed thereon.

Part IV—Survey : Safety Equipment

Survey

28. Every fishing boat to which these regulations apply shall be surveyed annually in accordance with the provisions of regulation 3 of these regulations and no certificate of survey will be granted unless the surveyor is satisfied that the hull, machinery and equipment are in good condition and sufficient for the intended service of the boat and are in accordance with the provisions of this Part of these regulations.

Lifesaving appliances

29. Every sea-going fishing boat to which these regulations apply shall be provided with lifesaving appliances as follows—

(a) a sea-going fishing boat of 150 feet in length or over shall carry either—

(i) at least two lifeboats attached to davits, so arranged that there is at least one lifeboat on each side of the boat, the lifeboats on each side of the boat being of sufficient aggregate capacity to accommodate all persons on board; and, in addition, at least two liferafts of sufficient aggregate capacity to accommodate all persons on board and so stowed that they can readily be transferred into water on either side of the boat; or

(ii) a Class C Lifeboat attached to a davit; and, in addition, two lifeboats of sufficient aggregate capacity to accommodate twice the number of persons on board and so stowed that they can readily be transferred into water on either side of the boat.

(b) a sea-going fishing boat of less than 150 feet but more than 100 feet in length shall carry either—

(i) a lifeboat of sufficient capacity to accommodate all persons on board, attached to a davit; and liferafts of sufficient aggregate capacity to accommodate all persons on board and so stowed that they can readily be transferred into the water on either side of the boat, and if there are more than 13 persons on board, two liferafts shall be carried;

or

(ii) a Class C lifeboat attached to a davit; and at least two liferafts of sufficient aggregate capacity to accommodate not less than one-and-a half times the number of person on board, and so stowed that they can readily be transferred into the water on either side of the boat, except that the Class C lifeboat to be carried by a boat under 120 feet in length and carrying at least two liferafts of sufficient aggregate capacity to accommodate twice the number of persons on board, and stowed as aforesaid, shall not be required to be attached to a davit, but shall be so stowed that it can readily be placed in he water on either side of the boat, or if the boat has a list, on the side which is lower in water.

(c) a sea-going fishing boat of less than 100 feet, but more than 70 feet in length,

shall carry two liferafts, each of sufficent capacity to accommodate one-and-a-half times the number of persons on board, and so stowed that they can readily be placed in water on either side of the boat, or will float free in the event of the parent vessel foundering. If rafts which can be inflated are carried, the total life-saving capacity need not be more than one-and-a-half times the number of persons on board. If such fishing boat proceeds on a voyage south of latitude 3° North or West of longitude 18° West, it shall carry, in addition to the liferafts, a Class C lifeboat attached to a davit so that it can be readily placed in the water on either side of the boat, and of sufficent capacity to accommodate all persons on board.

(d) a sea-going boat of less than 70 feet, but more than 50 feet in length, which does not at any time proceed on a voyage of more than 100 miles from the coast of Nigeria, shall carry one or more liferafts all sufficient aggregate capacity as to accommodate one-and-a-half times the number of persons on board. If such fishing boat proceeds on a voyage longer than 100 miles, it shall, in addition to the liferafts, carry a Class C lifeboat so stowed that it can readily be placed in water on either side of the boat, or if the boat has a list, then on the side which is lower in the water, and of sufficient capacity to accommodate all persons on board.

(e) All sea-going fishing boats of 50 feet and over in length shall be fully decked.

(f) if the fishing boat is under 50 feet in length and not fully decked it shall be fitted with—

(i) such internal buoyancy as required by the Government Inspector of Shipping; and

(ii) bilge keels or rails or other means of enabling persons to cling to the boat if overturned; and it shall also carry sufficient oars or paddles to enable it to be manoeuvred without the use of the engines.

(g) Every sea-going fishing boat of 100 feet or over in length shall carry at least four lifebuoys and every such boat of under 100 feet in length shall carry at least two lifebuoys except that in the case of a boat of under 50 feet in length, there shall be sufficient lifebuoy accommodation for all persons on board.

(h) Every sea-going fishing boat shall carry one life-jacket for every person on board.

(i) Every sea-going fishing boat of 70 feet in length or over shall carry line throwing apparatus.

Distress signals

30.—(1) Every sea-going fishing boat of 100 feet or over in length shall carry not less than twelve parachute distress rocket signals.

(2) Every sea-going fishing boat of less than 100 feet but more than 50 feet in length shall carry at least two parachute distress rocket signals and six red hand flares or parachute distress rockets in lieu.

(3) Every sea-going fishing boat of less than 50 feet in length shall carrry at least six red hand flares or parachute distress rockets in lieu.

(4) All pyrotechnic distress signals shall comply with the specifications and conditions contained in the Merchant Shipping (Lifesaving Appliances) Rules, 1963.

Sounding apparatus

31.—(1) Every sea-going fishing boat of 70 feet or over in length shall be equipped with an efficient sounding machine, mechanical or electrical, and a properly marked hand lead line with a seven pound lead

(2) Every such boat of less than 70 feet in length shall carry two hand lead lines.

Anchors and cables

32. Every sea-going fishing boat shall be equipped with anchors and cables to the satisfaction of the surveyor.

Hawsers

33. Every sea-going fishing boat shall be equipped with hawsers and warps to the satisfaction of the surveyor and such hawsers and warps shall include one of sufficient length and strength as to enable the boat to be towed in rough weather.

Bilge pumps

34.—(1) Every sea-going fishing boat of 70 feet or over in length shall be equipped with at least one powered bilge pump, connected to every water-tight compartment in the boat. In addition there shall be carried one manual pump for every watertight compartment

(2) Every sea-going fishing boat of less than 70 feet in length shall be equipped with one manual pump for every watertight compartment.

Sounding pipes

35. Every fully decked sea-going fishing boat shall be equipped with sounding pipes from the upper deck for ascertaining the depth of water or other fluid in each watertight compartment.

Inland waters fishing boats

36. Every fishing boat to which these regulations apply, operating solely on the inland waters of Nigeria shall, according to its size, carry lifesaving appliances and comply with the provisions of the Merchant Shipping (Life-saving Appliances) Rules, 1963, relating to ships of Class VIII.

Firefighting equipment

37. Every fishing boat to which these regulations apply, shall according to its size, carry firefighting equipment and comply with the provisions of the Merchant Shipping (Fire Appliances) Rules, 1963, relating to ships of Classes V, VI, VII and VIII.

Grant of certificate of survey

38.—(1) After a surveyor has inspected a fishing boat, her hull, engines and equipment, and is satisfied that the condition thereof is suitable to the intended service of the boat he may, on payment of the prescribed fee, grant and issue a certificate of survey in a form approved by the Minister.

(2) Such certificate shall always be kept on board the boat and shall be produced on demand to the Registrar, Police Officer, Habour Master, Officer of Customs or Surveyor. Any person who fails to produce such certificate when required to do so by any of these officers shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding ten naira, or to imprisonment for a term not exceeding one month.

Part V—Miscellaneous

Lights, Signals, etc

39. Every fishing boat to which these regulations apply shall carry lights and signals and shall be navigated in accordance with the Collision Regulations and the Merchant Shipping (Navigation of Inland Waters) Regulations, 1963, as the case may be.

Exemption

40. The Government Inspector of Shipping may, in his discretion, by writing under his own hand, and subject to such conditions as he may think fit to impose, exempt any fishing boat from any or all of the provisions of these regulations, if he is satisfied that any alternative arrangements made are at least as efficient, safe and satisfactory as those provided for in these regulations.

Fees

41.—(1) The fees prescribed in the Second Schedule to these regulations in respect of the matters stipulated therein shall be paid by the owner or his agent or the person in charge of every fishing boat.

(2) Certificate of registration of a fishing boat or certificate of competency of any of the crew of a fishing boat lost at sea due to ship wreck or fire, shall be reissued without payment of the fee prescribed for same in the Second Schedule to these regulations.

Merchant Shipping Act

42. During the initial survey of a fishing boat, the surveyor shall ascertain the gross tonnage of that boat in accordance with Schedule 1. (Rule 11 to the Merchant Shipping (Tonnage) Regulations 1970) Tonnage *L.N 82 of 1970*

FIRST SCHEDULE (Reg. 4 (1))

CERTIFICATE OF REGISTRATION

FISHING BOAT

Registration Number	Name of Fishing Boat	Port of Registration

PARTICULARS OF BOAT

	Feet	Tenths
Length overall		
Maximum breadth to outside of plating		
Depth in hold from tonnage deck to ceiling amidships		

Where Built	When Built	Builder's Name and Address

Description of Engines	Horsepower	Description of boilers (if any)	Pressure

Under deck Gross Tonnage measured by Rule 11 .....tons

Name and Residence of Owner(s)	Proportion of shares

I, the undersigned, Registrar of Nigerian Fishing Boats at the port of ...., hereby certify that the Fishing Boat, the description of which is prefixed to this my Certificate, has been duly surveyed, and that the above description is in accordance with the Register Book.

DATED at.....this.....day of .....19.....

NOTE—A Certificate of Registration is not a document of Title. It does not necessarily contain note of all changes of ownership, and in no case does it contain an official record of any mortgages affecting the boat. In the case of any change of ownership it is important for the protection of the interests of all parties that the change should be registered according to law. Should a boat be lost, sold to foreigners, or broken up, notice thereof, together with the Certificate of Registration, if in existence, should immediately be given to the Registrar of Nigerian Fishing Boats at the Port of Registry. (*See* Regulation 4).

SECOND SCHEDULE (Regs. 4,8,9,26 and 42)

FEES

1. Registration of Fishing Boat

	N	k
(a) Issue of certificate of registration	4	0
(b) Renewal of a certificate of registration	4	0
(c) Transfer of registration from one place to another	2	0
(d) Each endorsement made on a certificate of registration	1	0

2. CERTIFICATE of COMPETENCY

(a) Examination for Skipper (Fishing)	12	0
(b) Examination for Mate (Fishing)	6	0
(c) Examination for Coxswain (Fishing)	2	0
(d) Examination for Motorman (fishing), Grade I	2	0
(e) Examination for Motorman (Fishing), Grade II	2	0
(f) Endorsement of any certificate of competency	1	0
(g) Endorsement on Engineering Assistant's certificate for service at sea	1	0
(h) Renewal of a certificate of competency	same as initial issue.	

3. SURVEY of FISHING BOAT

(a) Boat under 20 tons gross	12	0
(b) Boat 20 tons but less than 50 tons gross	20	0
(c) Boat 50 tons but less than 100 tons gross	30	0
(d) Boat 100 tons but less than 200 tons gross	40	0
(e) Boat 200 tons but less than 300 tons gross	50	0
(f) Boat 300 tons gross and above	60	0

Made at Lagos this 4th day of July, 1963

R.A. Njoku,

Federal Minister of Transport

EXPLANATORY NOTE

These regulations provide for registration of fishing boats, the carrying of lifesaving appliances by them and the holding of certificates of competency by the crew of such boats.

APPENDIX 1.5

Nigerian Shipping Laws

L.N. 11 of 1965.

Merchant Shipping (Examination for Certificates of Competency) (Fishing) Regulations 1964

Commencement:— 7th January, 1965

In exercise of the powers conferred by section 427 of the Merchant Shipping Act, 1962, and of all the other powers enabling me in that behalf, I hereby make the following Regulations—[1]

Chapter I—Introductory

Short title

1. These regulations may be cited as the Merchant Shipping (Examination for Certificates of Competency) (Fishing) Regulations 1964.

Application

2 These Regulations shall apply to examinations for certificates of competency required to be held by men serving in fishing boats in compliance with the Merchant Shipping (Fishing Boat) Regulations, 1963.[2]

Chapter II—General

Non Examination of Aliens

3. No candidate other than a Commonwealth citizen may be examined for any grade of certificate of competency in Nigeria. The onus of proving nationality in any case of doubt shall lie on the candidate. This regulation may be waived at the discretion of Government Inspector of Shipping and with the agreement of the Consular or Diplomatic Officer of the nation concerned.

Mode of application

4. Candidates for examination shall apply therefore only on the official application form obtainable from any examiner. The form, properly completed, together with the necessary fee specified in the Merchant Shipping (Fees) Regulations, 1964 and any testimonials, or other documents which may be required by the examiner shall be lodged witht he examiner at the proposed place of examinations, 1964[3] and any testimonials, or other documents which may be required by the examiner shall be lodged with the examiner at the proposed place of examina-

Doubtful cases

5. Where a candidate is in doubt as to whether or not his service or other qualifications comply with the requirements of these regulations he may submit all his certificates, testimonials, etc., to any examiner for a decision. If the said examiner cannot come to a decision on the matter or if the candidate is not satisfied with the decision of the examiner, the papers may be sent to the Government Inspector of Shipping, whose decision shall be final.

Service afloat

6. A candidate's eligibility shall depend *inter alia* upon the amount of service afloat The particulars of such service shall be accurately stated upon the application form and supported by such documentary evidence as may be required by the examiner.

No gratuities to be offered

7. If a candidate offers a gratuity to any officer of the Ministry of Transport he will be regarded as having committed an act of misconduct and will be rejected and will not be allowed to be examined again until after a period of at least twelve months from the date of such misconduct.

Literacy

8. All candidates must prove to the satisfaction of the examiner that they can speak and write English sufficiently well to be able to perform the duties required of them by the various grades of certificates of competency.

[1] *See* p 178, *ante*.
[2] *As amended by* LN 25 *of* 1965 *and* LN 82 *of* 1970. *See* p. 465, *post*.
[3] *See* LN 42 *of* 1979.

Issue of Certificates

9.—(1) A candidate who passes the examination will receive an Interim Certificate of Competency from the examiner which will be valid for a period of not more than two months. A copy of such certificate will be sent to the Government Inspector of Shipping who will in due course issue a proper certificate through the examiner.

(2) A candidate who is wholly or partially unsuccessful will receive from the examiner a statement to that effect. Such candidates must retain this statement and produce it to the examiner when they next present themselves for examination.

Lost Certificates.

10. An application for the replacement of a lost certificate of competency should be made on a form of application giving the necessary particulars, and handed in to any examiner, paying at the same time the appropriate fee A declaration as to the circumstances in which the certificate was lost must be made by the applicant before the examiner. The examiner will then send the form to the Government Inspector of Shipping who will forward a replacement for the lost certificate for delivery to the applicant.

Provided that no fee will be chargeable if the applicant can show that the certificate was lost through shipwreck or fire on board ship.

PART I

Chapter III—Deck Certificates of Competency

Validity of Certificates

11—(1) A certificate of competency as Coxswain (Fishing) will entitle the holder to command a sea-going fishing boat not exceeding 60 feet in length.

(2) A certificate of competency as Mate (Fishing) will entitle the holder to command a sea-going fishing boat not exceeding 100 feet in length.

(3) A certificate of competency as Skipper (Fishing) will entitle the holder to command any fishing boat.

Sight Test

12. Every candidate for Coxswain, Mate or Skipper must pass the Ministry sight test before he can receive a certificate of competency. Such sight test will be in accordance with the provisions of Appendix 2 of the Merchant Shipping Examination for Certificates of Competency (Deck) Regulations 1963. A pass certificate in the sight test is valid for a period of three months.

First Aid Certificate

13—(1) A candidate for certificate of competency as Skipper (Fishing) must produce a certificate issued by the St. John Ambulance Association, the British Red Cross Society or any other authority approved by the Government Inspector of Shipping to the effect that he has passed the examination in First Aid to the injured.

(2) The qualifying examination for this certificate must have been passed not more than three years before the date of the examination for the certificate of competency.

Coxswain (Fishing)

14—(1) A candidate for examination shall not be less than 18 years of age and shall have had at least two years experience as a deck hand at sea in sea-going boats.

(2) Such candidate must produce to the examiner a certificate, signed by his employer, to the effect that he can steer a boat efficiently and that he is of good character.

Mate (Fishing)

15—(1) A candidate for examination shall not be less than 20 years of age and shall have had at least two years service as Coxswain in sea-going fishing boats.

(2) Such candidate must produce to the examiner a certificate of good character from his employers covering the period of qualifying service.

Skipper (Fishing)

16—(1) A candidate for examination shall not be less than 24 years of age and shall have had at least two years service as Mate in sea-going fishing boats.

(2) Such candidate must produce to the examiner a certificate of good character from his employers, covering the period of qualifying service.

Chapter IV—Success and Failure in the Examinations

17. For writeen work, the candidate will be furnished with sheets of blank paper on which he will be required to answer in a clear and legible hand the questions on the question paper, and to start each question by writing in the margin the number of the question to which it relates.

18. To pass in the written paper, a candidate will be required to obtain the appropriate percentage pass in the subjects shown in the following tables and also to obtain 70 per cent of the total marks for all subjects. The time and marks allotted for each written part of the examination for each grade of certificate will be as follows—

(1) Coxswain (Fishing)

First Day—Orals

(2) Mate (Fishing)

First Day	*Time*	*Marks*	*% Pass*
Chartwork	*3 hours*	*200*	*70*
Practical Navigation	*2 hours*	*200*	*70*
		400	

Second Day—Orals

(3) Skipper (Fishing)

First Day			
Practical Navigation I	*3 hours*	*200*	*70*
Practical Navigation II	*2 hours*	*150*	*70*
Second Day			
Chartwork	*3 hours*	*200*	*70*
Navigation Aids	*2 hours*	*150*	*50*
Third Day			
Ship Stability	2 hours	100	—
Orals	—	—	—
		—	—
		800	70

(4) Details of the syllabuses for the various grades of fishing certificates of competency will be found in the First Schedule to these regulations.

19—(1) The examination will begin each day at a time appointed by the examiner. A luncheon interval will be given each day, generally between 11 a.m. and 12 noon. As far as possible, candidates will be given ample notice of the day and time of the oral examination.

(2) Candidates must appear punctually at the examination room at the time appointed.

(3) No person other than those whose duties require them to be present will be allowed in the room during the examination and no instructors will be allowed on the premises.

(4) Before the examination begins, the tables or desks will be cleared of all scraps of paper and books other than those permitted in the examination room.

(5) The following tables and books will be supplied by the Ministry in the examination room—

Nautical Tables—Norrie (full edition)
Alt-Azimuth Tables—Burdwood
Abridged Nautical Almanac—1963 Edition
Nigerian Tide Tables—1963 Edition

Candidates who wish to use tables other than the above may bring such tables into the examination room, on condition that they submit them to the Examiner for scrutiny and approval before the examination begins. These tables must contain no manuscript notes. Subject to the Examiner's approval, no restriction will be placed on the use of any tables but such tables must be capable of giving an answer within the required limits of accuracy; that is, 0.5 of a degree for compass errors, bearings and courses, and 2 miles for position lines.

(6) All instruments necessary for use in the examination are supplied by the Ministry.

(7) Candidates are forbidden to bring books or papers of any kind whatsoever, other than nautical tables, into the examination room. If this rule is infringed, the offender will be regarded as having failed and he will not be permitted to present himself for re-examination for a period of three months.

(8) If a candidate deface, blots, writes in, or otherwise injures any book, instruments, etc., belonging to the Ministry, his service papers (*i.e.* certificates, testimonials, etc.) will be retained until he has replaced the damaged article. He will not be allowed to remove the damaged article and will be regarded as having failed.

(9) No candidate may leave the examination room without permission and without giving up the paper on which he is engaged. If this rule is infringed the offender will be regarded as having failed.

(10) Silence must be kept in the examination room.

(11) No candidate will be allowed to work out his problem on waste paper or to write on the blotting paper supplied for his use in the examination.

(12) In the event of any candidate being discovered referring to any unauthorised book or paper, or copying from another, or affording any assistance or giving any assistance to another, or communicating in any way with another, during the time of examination, or copying any part of the problems for the purposes of taking them out of the examination room, he will be regarded as having failed and will be allowed to present himself for re-examination for a period of six months.

A candidate guilt of a second offence of this kind will not be allowed to present himself for re-examination until twelve months have elapsed.

(13) Any candidate violating any of the Regulations, or being guilty of insolence to the Examiner, or of any disorderly or improper conduct in or about the examination room will render himself liable to the postponement of the examination, or, if he passed, the detention of his certificate for such periods as the Government Inspector of Shipping may direct.

Permits

20. The Government Inspector of Shipping may, at his discretion and subject to any conditions he might see fit to impose, issue a permit in lieu of a certificate of competency. Such permit shall be valid for a period not exceeding five years.

PART II

Chapter V—Engine Room

Certificate of Competency

Validity of Certificate

21—(1) A motorman (Fishing) Grade II certificate of competency will permit the holder to be in charge of the Engine room of sea-going Fishing vessels not exceeding 60 feet in length, and in a junior Engine room capacity in vessels not exceeding 100 feet.

(2) A Motorman (Fishing) Grade II certificate of competency will only permit the holder to operate or be in charge of Engines for which his certificate is endorsed.

22. A Motorman (Fishing) Grade II certificate of competency will permit the holder to be in charge of the Engine room of a Fishing vessel not exceeding 100 feet and in a junior Engine room capacity in vessels exceeding 100 feet.

Application for examination Motorman (Fishing) Grade II

23. A candidate for a certificate of competency of Motorman (Fishing) Grade II shall comply with Regulation 18 of the Merchant Shipping (Fishing Boat) Regulations, 1963.

Motorman (Fishing) Grade I

24. A candidate for a certificate of competency as Motorman (Fishing) Grade I, shall comply with Regulation 19 of the Merchant Shipping (Fishing Boat) Regulations, 1963.

Testimonials and sea service

25—(1) Candidates for certificate of competency must prove the truth of their delcarations by the production of certificates or testimonials from their employers, stating—

(*a*) that the necessary sea service has been completed and also showing the proportion of time actually spent at sea. If this time amounts to less than two thirds if the service required to qualify for the examination, additional sea service will be required to make up the deficiency;

(*b*) his rank, *i.e.*, in what capacity the duties were performed.

(2) Service whilst a vessel is laid up will not be allowed to be counted towards qualifying sea service.

Calculation of service

26. Candidates service as shown on testimonials or other documents shall be reckoned by the calendar months. The number of complete months from commencement of the period shall be computed, and thereafter the number of odd days shall be counted and reckoned at 30 to a month. The day on which an agreement commences and on which it terminates shall not be included.

Physical defects

27. If a candidate shows a tendency to deafness or suffers from any physical defects of such nature as might interfere with the proper performance of his duties n watch, the signatories of his testimonial shall state whether such defects did in any way interfere with the efficient discharge of the candidate's duties.

Regulations concerning conduct of examination

28—(1) Regulation 17 and sub-paragraphs 1 to 4 and 7 to 13 of regulation 19 shall also apply to candidates taking certificates of competency as Motorman (Fishing) Grades I and II.

(2) A candidate who passes in written and fails in oral will have to take the whole examination again after payment of the full examination fee.

(3) Should however a candidate fail through ignorance of fundamental principles and serious weakness in practical knowledge or on account of general defectiveness, he shall not be allowed to present himself for a re-examination, until a further period of sea service fixed by the examiner has been performed. This additional period shall not exceed six months.

(4) A candidate may ordinarily present himself for re-examination at any time after one month since his last attempt, but if a candidate fails three times within 3 months, he shall be debarred from re-examination for a period up to six months.

Insufficient service.

29. If after the candidate has passed the examination, it is discovered that his service is insufficient, or that he was at the time otherwise unqualified to sit the examination, the certificate of competency to which he would have been entitled by virtue of passing the examination, shall not be issued or if already issued shall be withdrawn until such time as the deficiency in service or qualification has been made up.

Permits

30.—(1) The Government Inspector of Shipping may at his discretion subject to such conditions as he may think fit to impose, issue to any person, who is in opinion is sufficiently competent, a permit to act in the capacity of Motorman (Fishing) Grade I or Grade II. Such permit, shall, subject to the conditions and for the period stated therein be deemed to have the same force as an equivalent certificate of competency granted under these regulations.

(2) The owner or agents of any fishing vessel shall submit details of professional service of persons concerned who require such permits.

FIRST SCHEDULE

SYLLABUSES

1. GENERAL.—The following paragraphs show the syllabuses of examinations for the various grades of fishing certificates. In each paper throughout the syllabuses, questions may be set combining one or more paragraphs. The syllabuses for a higher grade in both written and orals is to be regarded as including the syllabuses of that subject for certificates of lower grades.

2. COXSWAIN.

(1) The examination is to be conducted orally and the candidate must understand and give satisfactory answers to questions on the following subjects—

(*a*) To be able to use an Admiralty chart or plan and have a sound knowledge of the information to be derived from it, *e.g.*, depth of water, nature of bottom, navigation lights and marks, etc.

(*b*) The marking and use of the lead line.

(*c*) How to improvise and use a sea-anchor.

(*d*) Fire-fighting on board ship.

(*e*) Life-saving appliances and fire appliances required to be carried in fishing boats of up to 70 feet in length; care and maintenance of life-boats and their equipment, bouyancy apparatus, lifebouys and life-jackets.

(*f*) Man overboard and necessary action.

(*g*) Management of lifeboat in heavy weather and in surf.

(*h*) A good knowledge of the Collision Regulations.

(*i*) Signals of distress.

(*j*) The uniform system of bouyage.

(*k*) The signal flag meanings of the International Code of Signals.

(*l*) Any other questions relating to the duties of a Coxswain of a fishing boat which the Examiner may think necessary.

3. MATE.

1—*Chartwork*

(*a*) To use a chart of plan and understand the meaning of all marks, signs and abbreviations thereon (Candidates will be examined orally on this part.)

(*b*) To find the compass course (or courses) and distance (or distances) between two points on the chart.

(*c*) To find on the chart or plan the course to steer by compass in order to counteract the effect of a given tide or current and to find the distance the ship make good towards a given point in a given time.

(*d*) To obtain the compass error by transit bearings.

(*e*) T find the ship's position by cross bearings of two objects and the set and drift experienced.

2—*Practical Navigation*

(*a*) To be able to use the Traverse Table for simple calculations involving Plane Sailing.

(*b*) To be able to convert compass courses and bearings into true courses and bearings and vice versa, given the variation and deviation.

(*c*) To find the error of the compass from an amplitude of the sun by means of tables, or any other method the candidate may select.

(*d*) To find the time and height of high and low water at Lagos, Escravos Bar, Forcados Bar and Calabar, by means of Nigerian tide tables.

3—*Orals*

Candidates must understand and give satisfactory answers on the following subjects—

(*a*) The use of the sextant and to be able to find the index error by means of the horizon.

(*b*) The use and reading of an aneroid barometer.

(*c*) Life-saving and fire appliances required to be carried by all fishing boats: care and maintenance of inflatable liferafts.

(*d*) The use of line-throwing apparatus and Breeches Bouy apparatus.

(*e*) To know the morse code and to be able to attain a speed of four words a minute in morse flashing, (Reading and sending).

(*f*) Any other questions relating to the duties of a Mate of a fishing boat which the examiner may think necessary.

4. SKIPPER.

1—PRACTICAL NAVIGATION I

(*a*) To find the latitude by observation of the sun.

(*b*) To determine the direction of the position line and the position through which it passes from an observation of the sun out of the meridian.

(*c*) To find the ship's position at the time of the second observation with a run between. The two observations may both be of the sun or a solar observation together with a terrestial position line.

(*d*) To find the error of the compass by means of a time azimuth of the sun.

2—Practical Navigation II

(*a*) To understand the terms: geographical position of the sun, Greenwich hour angle, local hour angle, celestial meridian, prime vertical and azimuth.

(*b*) To obtain the course and distance from one position to another by means of Mercator sailing.

(*c*) To obtain the clock or chronometer time of the sun's meridian passage.

3—Chartwork

(*a*) To find the ship's position from two bearings of the same object, the course and distance run between taking the bearings being given, making due allowance for a given tide and current, and to find the distance the ship will make good towards a given position in a given time.

(*b*) The use of a line of soundings.

(*c*) To find the height of the tide at a given time at any port in Nigeria by means of the tide tables.

4—Navigational Aids

(*a*) Elementary questions on compass deviation. To find the magnetic bearing of a distant object from compass bearings taken on equidistant points and to construct a table of deviations.

(*b*) Care and maintenance of magnetic compasses. Siting of compasses with particular reference to the proximity of magnetic material and electrical appliances.

(*c*) Principal of the echo sounder and its practical use; false echoes, fish echoes.

5—Ship Stability

The examination in stability will be designed to show that the candidate has a working knowledge of the factors governing the stability of a trawler and will not include any calculations. A candidate will be required to have a knowledge of—

(*a*) Centre of gravity, centre of bouyancy, metacentre and metacentric height.

(*b*) Stable, neutral and unstable equilibrium.

(*c*) The effect on the metacentric height of raising or lowering weights and taking on board or discharging of weights such as fuel oil and fish.

(*d*) The effect of free surface on the metacentric height.

6—Orals

(*a*) Meterology, sufficient to understand the meaning of a rapid increase in barometric tendency in tropical regions. The visual signs of the approach of a West African Tornado and a knowledge of the type of weather associated with it. A knowledge of the prevailing winds at different times of the year off the coasts of West Africa and the general type of weather associated with these winds.

(*b*) Getting under way. Berthing and unberthing.

(*c*) Tending a vessel at anchor; mooring and unmooring.

(*d*) The rigging and use of a jury rudder.

(*e*) What is required by the Merchant Shipping Acts to be done in cases of collision, stranding, injury or death on board.

(*f*) Any other questions relating to the duties of a Skipper of a fishing boat which the Examiner may think necessary.

7—Signals

Candidates will be required to send and receive messages by morse flashing at six words a minute and to send and receive messages by semaphore at four words a minute.

SECOND SCHEDULE

Syllabus for Motorman (Fishing) Grades I and II

NOTES

(i) Candidates for a certificate and endorsement will be required to take a written examination to be followed by an Oral Examination: If the candidate is unable to express himself sufficiently well in the written paper, he will be given a rigorous oral examination

(ii) The written examination consists of one Engineering Knowledge paper of 3 hours and six questions only to be attempted out of nine. Candidates will be required to illustrate their answers by means of freehand sketches.

1—Motorman (Fishing) Grade I

(*a*) The use and constructional details of pressure guages, thermometer, pyrometer, barometer, hydrometer and other meters commonly used on board fishing vessels.

(*b*) Details and principle underlying the working of Marine Engines and other auxiliaries.

(*c*) Precaution against fire and explosion due to oil or gas: Flash point. Dangers of leakage from oil tanks, pipes, particularly in bilges and other unventilated spaces.

(*d*) Method of dealing with fire and fire detection. Action and maintenance of Mechanical and Chemical fire extinguishers and other fire fighting appliances.

(*e*) Requirements of fire fighting and safety equipment to be carried on fishing vessels.

(*f*) A thorough knowledge of the working of Internal Combustion Engines, of Petrol, Semidiesel and Diesel type. The function of each important part and attention required by different parts of machinery on board fishing vessels.

(*g*) Starting and reversing arrangements and various operations connected therewith

(*h*) Knowledge of common defects usually encountered and their remedies. Maintenance required by such engines. Breakdowns at sea and temporary and permanent repairs.

(*i*) Understand the use of pipe connection and safety devices required for operation of engines. Use of valve and other safety devices in air bottles and compressors.

(*j*) Working principle of air compressor, generator and batteries.

(*k*) Switch board and safety devices provided.

Their maintenance and usual precautions taken when connecting generators.

2—Motorman (Fishing(Grade II

(*a*) A thorough knowledge of the working of Internal Combustion Engines of Petrol, diesel and semidiesel type.

(*b*) Be conversant with starting, stopping, reversing and other operations connected therewith.

(*c*) Knowledge of common defects usually encountered and their remedies. Maintenance of engine.

(*d*) Precautions against fire and explosion due to gas or oil. Spontaneous combustion, etc.
(*e*) Fire extinguishers, and method of dealing with fire.
(*f*) Auxiliaries and Switchboard.

MADE at Lagos this 4th day of November, 1964.

R.A. NJOKU,
Minister of Transport

EXPLANATORY NOTE

These regulations lay down the requirements, in detail, for acceptance of candidates and conduct of examinations for the varying certificates of competency required to be held by persons employed in Fishing Boats.

APPENDIX 1.6

Territorial Waters Act

THE TERRITORIAL WATERS ACT 1967

No. 5

[*See section* 5 (2)] Commencement

THE FEDERAL MILITARY GOVERNMENT hereby enacts as follows—

Extension of limits of territorial waters *No. 38 of 1971*

1—(1) The territorial waters of Nigeria shall for all purposes include every part of the open sea within *thirty* nautical miles of the coast of Nigeria (measured from low water mark) or of the seaward limits of inland waters.

(2) Without prejudice to the generality of the foregoing subsection, that subsection shall in particular apply for the purposes of any power of the Federal Military Government to make with respect to any matter laws applying to or to any part of the territorial waters of Nigeria.

(3) Accordingly—

(*a*) in the definition of territorial waters contained in section 18 (1) of the Interpretation Act 1964, for the words "*twelve* nautical miles" there shall be substituted the words "*thirty* nautical miles"; and *No. 30 of 1971*

(*b*) references to territorial waters or to the territorial waters of Nigeria in all other existing Federal enactments (and in particular the Sea Fisheries Act 1971) shall be construed accordingly.

In this subsection "existing Federal enactment" means any Act of Parliament passed or made before the commencement of this Act (including any instrument made before 1st October 1960 in so far as it has effect as an Act) or any order, rules, regulations, rules of court or byelaws made before the commencement of this Act in exercise of powers conferred by any such Act or instrument.

(4) Nothing in this section shall be construed as altering *the extent of or the area* covered by any lease, licence or prospecting right granted before the commencement of this Act *or of the Territorial Waters (Amendment) Act 1971*. *No. 38 of 1971*

2—(1) Any act or omission which—

(*a*) is committed within the territorial waters of Nigeria, whether by a citizen of Nigeria or a foreigner; and

(*b*) would, if committed in any part of Nigeria, constitute an offence under the law in force in that part,

shall be an offence under that law, and the person who committed it may, subject to section 3 of this Act, be arrested, tried and punished for it as if he had committed it in that part of Nigeria.

(2) The foregoing subsection—

(*a*) shall apply whether or not the act or omission in question is committed on board or by any means of a ship or in, on or by means of a structure resting on the sea bed or subsoil; and

(*b*) in the case of an act or omission committed by a foreigner on board or by means of a foreign ship, shall apply notwithstanding that the ship is a foreign one.

(3) For the purposes of the issue of a warrent for the arrest of any person who is by virtue of this section liable to be tried in some part of Nigeria for an offence, that offence may be treated as having been committed in any place in that part

(4) Any jurisdiction conferred on any court by this section shall be without prejudice to any jurisdiction (and in particular any jurisdiction to try acts of piracy as defined by the law of nations) exercisable apart from this section by that or any other court.

(5) Nothing in this section shall be construed as derogating from the jurisdiction possessed by Nigeria under the law of nations, whether in relation to foreign ships or persons on board such ships or otherwise.

(6) In this section–

"foreigner" means a person who is not a citizen of Nigeria,

"foreign ship" means a ship of any country other than Nigeria;

"ship" includes floating craft and floating structures of every description

3.–(1) Subject to the provisions of this section, a Nigerian court shall not try a person who is a citizen of Nigeria for any offence committed on the open sea within the territorial waters of Nigeria unless before the trial the Attorney General of the Federation has issued a certificate signifying his consent to the trial of that person for that offence.

(2) Nothing in subsection (1) above–

(*a*) shall affect any power of arrest, search, entry, seizure or custody exercisable with respect to an offence which has been, or is believed to have been, committed as aforesaid,

(*b*) shall affect any obligation on any person in respect of a recognizance or bail bond entered into in consequence of his arrest, or the arrest of any other person, for such an offence;

(*c*) shall affect any power of any court to remand (whether on bail or in custody) a person brought before the court in connection with such an offence;

(*d*) shall affect anything done or omitted in the course of a trial unless in the course of the trial objection has already been made that, by reason of subsection (1) above, the court is not competent to proceed with the trial; or

(*e*) shall, after the conclusion of a trial, be treated as having affected the validity of the trial if no such objection as aforesaid was made in the proceedings at any stage before the conclusion of the trial.

(3) Subsection (1) above shall not apply to the trial of any act of piracy as defined by the law of nations.

(4) A document purporting to be a certificate issued for the purposes of subsection (1) above and to be signed by the Attorney-General of the Federation shall be received in evidence and shall, unless the contrary is proved, be taken to be a certificate issued by the said Attorney-General.

(5) Nothing in this section shall be construed as derogating from the provisions of any other enactment restricting the prosecution of any proceedings or requiring the consent of any authority to the prosecution thereof.

(6) In this section "offence" means any act or omission which by virtue of section 2 of this Act or any other enactment is an offence under the law of Nigeria or any part thereof.

* consequential repeals 41 and 42 Vict. c. 73 cap. 41

4. The Territorial Waters Jurisdiction Act 1878 and section 58 of the Criminal Procedure Act (which are superseded by sections 2 and 3 of this Act respectively) are hereby repealed.

Citation, extent and commencement.

5—(1) This Act may be cited as the Territorial Waters Decree 1967 and shall apply throughout Nigeria.

(2) This Act shall come into force at the expiration of the period of one month beginning with the date on which it is made.

DATED at Lagos this 8th day of March 1967.

LIEUTENANT-COLONEL Y. GOWON,
Head of the Federal Military Government,
Supreme Commander of the Armed Forces,
Federal Republic of Nigeria

THE TERRITORIAL WATERS (AMENDMENT) ACT 1971

No. 38

[26*th August* 1971] Commencement

THE FEDERAL MILITARY GOVERNMENT hereby enacts as follows—

Extension of the limits of territorial waters of Nigeria to 30 nautical miles.

1—(1) As from the commencement of this Act, the territorial waters of Nigeria shall for all purposes extend to thirty nautical miles of the coast of Nigeria (measured from low water mark) or of the seaward limits of inland waters.

(2) Accordingly, for any reference to the area or extent of the territorial waters of Nigeria in—

(*a*) the Territorial Waters Act 1967; 1967 No. 5.

(*b*) the Interpretation Act 1964, in so far as section 18 thereof deals with the definition of territorial waters; and 1964 No. 1.

(*c*) any other enactment,

there shall be substituted "thirty nautical miles" instead of "twelve nautical miles".

Sundry consequential amendment.

2. The sundry amendments of the provisions of the Territorial Waters Act 1967 set out in the Schedule hereto shall apply to the extent mentioned thereto.

Saving.

3. Nothing in this Act shall be construed as affecting the extent of or the area covered by any lease, licence, right or permit granted before the commencement of this Act under any enactment of Federal application and such enactment shall with any necessary modifications be construed subject to this Act.

Citation and extent

4. This Act may be cited as the Territorial Waters (Amendment) Act 1971 and shall apply throughout the Federation.

SCHEDULE

Section 2

Section 1 of the Territorial Waters Act 1967 shall be amended in the manner set our below, that is—

Provision	*Extent*
1. In subsection (1),	for the words "twelve nautical miles" substitute the words "thirty nautical miles";
2. In subsection (2),	the words "of the Military Governor of a State" shall be omitted;
3. In subsection (3)—	
(*a*) in paragraph (*a*) thereto,	for the references to "three nautical miles" and "twelve nautical miles" substitute the references to "twelve nautical miles" and "thirty nautical miles", respectively;
(*b*) in paragraph (*b*) thereto,	for the words "Sea Fisheries (Lagos) Act 1961" substitute the words "Sea Fisheries Act 1971" and in the marginal note for the year "1961" substitute the year "1971";
(*c*) in the said paragraph (*b*),	in the definition of "existing Federal enactment", immediately after the words "before the commencement of this Act" wherever those words occur insert "or of the Territorial Waters (Amendment) Act 1971";
4. In subsection (4),	from the words "the area" to the end substitute the words "the extent of or the area covered by any lease, licence, right or permit granted under any enactment or instrument before the commencement of this Decree or of the Territorial Waters (Amendment) Act 1971".

MADE at Lagos this 26th day of August 1971.

MAJOR-GENERAL Y. GOWON,
Head of the Federal Military Government,
Commander-in-Chief of the Armed Forces,
Federal Republic of Nigeria

EXPLANATORY NOTE

(This not does not form part of the above Act but is intended to explain its purport)

This Act extends the territorial waters of Nigeria to 30 nautical miles of the coast of Nigeria, and consequentially amends the Territorial Waters Act 1967.

Exclusive Economic Zone Act

EXCLUSIVE ECONOMIC ZONE ACT 1978

No. 28

[2nd October 1978]

Commencement.

THE FEDERAL MILITARY GOVERNMENT hereby enacts as follows:-

Delimitation of Exclusive Economic Zone of Nigeria.

1.—(1) Subject to the other provisions of this Act, there is hereby denominated a zone to be known as the Exclusive Economic Zone of Nigeria (hereinafter referred to as the "Exclusive Zone") which shall be an area extending from the external limits of the territorial waters of Nigeria up to a distance of two hundred nautical miles from the baselines from which the breadth of the territorial waters of Nigeria is measured.

(2) Notwithstanding subsection (1) above but subject to the provisions of any treaty or other written agreement between Nigeria and any neighbouring littoral State, the delimitation of the Exclusive Zone between Nigeria and any such State shall be the median or equidistance line.

(3) For the purposes of this section, "the median or equidistance line" means the line every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial waters of Nigeria and the State concerned are measured.

Exploitation, etc. of Exclusive Zone 1967 No. 5 1969 No. 51 1971 No. 30

2.—(1) Without prejudice to the Territorial Waters Act 1967, the Petroleum Act 1969 or the Sea Fisheries Act 1971, sovereign and exclusive rights with respect to the exploration and exploitation of the natural resources of the sea bed, subsoil and superjacent waters of the Exclusive Zone shall vest in the Federal Republic of Nigeria and such rights shall be exercisable by the Federal Military Government or by such Federal Commissioner or agency as that Government may from time to time designate in that behalf either generally or in any special case.

(2) Subsection (1) of this section shall be subject to the provisions of any treaty to which Nigeria is a party with respect to the exploitation of the living resources of the Exclusive Zone.

Power to erect installations, etc. and offences in relation thereto.

3.—(1) For the purpose of exploring and exploiting, conserving and managing the natural resources and other activities for the economic exploitation and exploration of the Exclusive Zone, the appropriate authority may establish, or permit the establishment, operation and use by any other person subject to such conditions as may be prescribed, in designated areas—

(*a*) artificial islands;

(*b*) installations and structures.

(2) The appropriate authority may, for the purpose of protecting any installation in a designated area by order published in the *Gazette*, prohibit ships, subject to any exceptions provided in the order, from entering without its consent such part of that area as may be specified in such order.

(3) If any ship enters any part of a designated area in contravention of an order made under this section, its owner or master shall be liable on conviction to a fine of N5,000 or imprisonment for 12 months or to both unless he proves that the prohibition imposed by the order was not, and would not on reasonable inquiry have become, known to the master.

(4) In this section "designated area" means any area of the Exclusive Zone so designated by the appropriate authority for the purposes of sub-section (1) above.

Applicability of criminal and civil laws, etc.

4.—(1) Any act or omission which—

(*a*) takes place on, under or above an installation in a designated area or any waters within 200 metres of such an installation; and

(*b*) would, if taking place in any part of Nigeria, constitute an offence under the enactment in force in that part,

shall be treated for the purposes of that law as taking place in Nigeria.

(2) Offences under subsection (1) above shall be triable by the Federal Revenue Court whether or not such offence would, if actually committed in Nigeria, be triable under the applicable enactment by a court other than the Federal Revenue Court.

(3) The prosecution of any offence under this act shall be at the instance of the Attorney-General of the Federation.

(4) In this section, "enactment" means any Act, Decree, Law, Edict relating to criminal or civil law (including torts) and any subsidiary instrument made thereunder including rules of court and, in matters other than criminal matters, rules of law applicable to or adopted in any part of Nigeria.

5.—(1) Where a body corporate is guilty of an offence under this Act and the offence is proved to have been committed with the consent or connivance of, or to be attributable to any neglect on the part of, any director, manager, secretary, or other similar officer of the body corporate or of any person who was purporting to act in any such capacity he, as well as the body corporate shall be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

(2) For the purposes of this section, "director" in relation to a body corporate established for the purpose of carrying on under national ownership any industry or part of an industry or undertaking being a body corporate whose affairs are managed by its members, means a member of that body corporate.

6. In this Act, unless the context otherwise requires—

"the appropriate authority" means the Federal Military Government or any other person or authority designated in that behalf by the Federal Military Government by virtue of section 2 of this Act;

"designated area" has the meaning assigned thereto by section 3(4) of this Act;

"the Exclusive Zone" means the Exclusive Economic Zone of Nigeria as delimited by section 1 of this Decree;

"territorial waters of Nigeria" has the meaning assigned thereto by the 1967 No. 5. Territorial Waters Act 1967.

7. This Act may be cited as the Exclusive Economic Zone Decree 1978.

MADE at Lagos this 2nd day of October 1978.

LT-GENERAL O. OBASANJO,
Head of the Federal Military Government,
Commander-in-Chief of the Armed Forces,
Federal Republic of Nigeria

EXPLANATORY NOTE

(*This note does not form part of the above Act but is intended to explain its purport*)

The Act delimits the Exclusive Economic Zone of Nigeria being an area extending up to 200 nautical miles seawards from the coasts of Nigeria. Within this Zone, and subject to universally recognised rights of other states (including land-locked States), Nigeria would exercise certain sovereign rights especially in relation to the conservation or exploitation of the natural resources (minerals, living species, etc.) of the seabed, its subsoil and superjacent waters and the right to regulate by law the establishment of artificial structures and installations and marine scientific research, amongst other things.

APPENDIX 1.8

SEVENTH SCHEDULE Reg. 37 (1) (*b*)

the following is a list of Approved Workshops—

Inland Waterways Department Dockyards at Lokoja and Warri.
Nigerian Ports Authority Dockyards at Apapa and Port Harcourt.
Elder Dempster Agencies Ltd , Engineering Department at Wilmot Point, Lagos and Calabar.
Holt's Transport Ltd., Dockyard at Warri.
Holland West Africa Ltn Dockyard at Meridian Point, Lagos.
The Societe Commerciale de L'Ouest Afrique, Motor Department, Lagos
The Compagnie Francaise de L'Afrique Occidentale, Motor Department, Lagos.
A. Leventis and Co. Ltd., Motor Department, Lagos.
J Allen and Co, Ltd., Motor Department, Lagos.
Niger Motors Ltd., Lagos. *L.N 14 of 1964*
The Union Trading Co.hLtd , Motor Department, Lagos.
The Trade Centre, Yaba, Lagos (Fitter Mechanics only).
The Shell Petroleum Development Co , Port Harcourt.
United Africa Company Dockyard at Burutu.
The Trade Centre, Enugu (Fitter Mechanics only).
The Trade Centres Kadùna, Bukuru and Kano (Fitter Mechanics only)
The trade Centre, Ombe River (Fitter Mechanics only)
Aiyetoro Community Workshop, Aiyetoro.
Osadjere Fishing Company Limited Workshops Apapa. *L.N 40 of 1969*
Coastal Shipping and Agency Co Ltd , Lagos *L.N [illegible] of 1967*
Nigeria Police Engineering Workshops, Lagos *L.N 145 of 1964*

Army Base Workshop Yaba (Fitter Mechanics only)

RNATIONAL MARITIME
ORGANIZATION

ASSEMBLY - 13th session
Agenda item 10(b)

IMO

APPENDIX 2 (P1)
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GENERAL
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RESOLUTION A.539(13)
adopted on 17 November 1983

CERTIFICATION OF SKIPPERS AND OFFICERS IN CHARGE
OF A NAVIGATIONAL WATCH ON FISHING VESSELS
OF 24 METRES IN LENGTH AND OVER

THE ASSEMBLY,

RECALLING Article 16(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations concerning maritime safety,

NOTING regulation 13, chapter V of the International Convention for the Safety of Life at Sea, 1974, which requires Contracting Governments to undertake, each for its national ships, to maintain or, if necessary, to adopt measures for the purpose of ensuring that from the point of view of safety of life at sea all ships shall be sufficiently and efficiently manned,

CONSIDERING that the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, is not applicable to fishing vessels,

CONSIDERING ALSO resolution 8 of the International Conference on Safety of Fishing Vessels, 1977, which invites the Organization to consider training and certification of crews of fishing vessels,

DESIRING to promote safety of life at sea and protection of the marine environment,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its forty-eighth session,

1. ADOPTS the recommendations on minimum requirements for certification of skippers and officers in charge of a navigational watch on fishing vessels of 24 metres in length and over, set out in the Annexes to this resolution;

2. URGES Member Governments to implement these recommendations;

3. REQUESTS the Maritime Safety Committee to keep this resolution under review and to report as necessary to the Assembly.

ANNEX 1

DEFINITIONS

For the purpose of this resolution the following definitions apply:

1 "Approved" means approved by the Administration.

2 "Fishing vessel" means any vessel used commercially for catching fish, whales, seals, walrus or other living resources of the sea.

3 "Limited waters" means those waters having limits defined by the Administration within which a degree of safety is considered to exist which enables the standards of qualification and certification for skippers and crews of fishing vessels to be set at a lower level than for service outside the defined limits.

In determining the extent of limited waters the Administration should take into consideration the following factors:

1 the size of the fishing vessels concerned;

2 the distance from a port of refuge;

3 the provision of electronic position-fixing devices;

4 the provision of rescue services and communication facilities;

5 the provision of meteorological broadcast services;

6 the weather conditions normally prevailing in the waters;

7 the limitations imposed due to ice accretion;

8 normal navigational hazards;

9 traffic conditions.

4 "Unlimited waters" means waters beyond limited waters.

ANNEX 2

RECOMMENDATION ON MINIMUM REQUIREMENTS FOR CERTIFICATION OF SKIPPERS ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN UNLIMITED WATERS

1 Every skipper on a fishing vessel of 24 metres in length and over operating in unlimited waters should hold an appropriate certificate.

2 Every candidate for certification should:

.1 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;

.2 meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels of 24 metres in length and over and have approved sea-going service of not less than 12 months as an officer in charge of a navigational watch on fishing vessels of not less than 12 metres in length. However, an Administration may allow the substitution of a period of approved seagoing service as an officer in charge of a navigational watch on merchant ships;

.3 have passed an appropriate examination or examinations to the satisfaction of the Administration. Such examination or examinations should include the material set out in the appendix to this recommendation. A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate.

Appendix

MINIMUM KNOWLEDGE REQUIRED FOR CERTIFICATION OF SKIPPERS ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN UNLIMITED WATERS

1 The syllabus given below is compiled for examination of candidates for certification as skippers on fishing vessels of 24 metres in length and over operating in unlimited waters. Bearing in mind that the skipper has ultimate responsibility for the safety of the vessel and its crew at all times including during fishing operations, examination should be designed to test the candidate's ability to assimilate all available information that affects the safety of the vessel and its crew in accordance with the syllabus.

2 Navigation and position determination

2.1 Voyage planning and navigation for all conditions:

.1 by acceptable methods of determining ocean tracks;

.2 within restricted waters;

.3 where applicable, in ice;

.4 in restricted visibility;

.5 where applicable, in traffic separation schemes;

.6 in areas affected by tides or currents.

2.2 Position determination:

.1 by celestial observations;

.2 by terrestrial observations, including the ability to use bearings from landmarks and aids to navigation such as lighthouses, beacons and buoys in conjunction with appropriate charts, notices to mariners and other publications to assess the accuracy of the resulting position fix;

.3 using, to the satisfaction of the Administration, modern ship electronic navigational aids as provided in fishing vessels, with specific reference to knowledge of their operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing.

3 Watchkeeping

3.1 Demonstrate thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, including those Annexes concerned with safe navigation.

3.2 Demonstrate knowledge of Recommended Basic Principles to be Observed in Keeping a Navigational Watch on Board Fishing Vessels.*

4 Radar equipment

4.1 Demonstrate in conjunction with the use of radar simulator** or, when not available, manoeuvring board, knowledge of the fundamentals of radar and ability in the operation and use of radar, and in the interpretation and analysis of information obtained from the equipment, including:

.1 factors affecting performance and accuracy;

.2 setting up and maintaining displays;

.3 detection of misrepresentation of information, false echoes, sea return, etc.;

.4 range and bearing;

.5 identification of critical echoes;

.6 course and speed of other ships;

.7 time and distance of closest approach of crossing, meeting or overtaking ships;

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* Assembly resolution A.484(XII).
** Attention is drawn to resolution 18 of the 1978 STW Conference.

.8 detecting course and speed changes of other ships;

.9 effect of changes in own vessel's course or speed or both;

.10 application of the International Regulations for Preventing Collisions at Sea, 1972.

5 Magnetic and gyro-compasses

5.1 Ability, using terrestrial and celestial means, to determine and apply the errors of the magnetic and gyro-compasses.

6 Meteorology and oceanography

6.1 Knowledge of meteorological instruments and their application.

6.2 Ability to apply meteorological information available.

6.3 Knowledge of characteristics of various weather systems, including, at the discretion of the Administration, tropical revolving storms and avoidance of storm centres and the dangerous quadrants.

6.4 Knowledge of weather conditions liable to endanger the vessel including, at the discretion of the Administration, fog, icebergs, ice accretion.

6.5 Ability to use appropriate navigational publications on tides and currents.

6.6 Ability to calculate times and heights of high and low water and estimate the direction and rate of tidal streams.

7 Fishing vessel manoeuvring and handling

7.1 Manoeuvring and handling of a fishing vessel in all conditions including the following:

.1 berthing, unberthing and anchor work under various conditions of wind and tide;

.2 manoeuvring in shallow water;

.3 management and handling of fishing vessels in heavy weather, including appropriate speed, particularly in following and

quartering seas, assisting a ship or aircraft in distress, means of keeping an unmanageable vessel out of a sea trough, lessening drift and use of oil;

.4 manoeuvring the vessel during fishing operations with special regard to factors which could adversely affect the vessel's safety during such operations;

.5 precautions in manoeuvring for launching boats or liferafts in bad weather;

.6 methods of taking on board survivors from lifeboats or liferafts;

.7 where applicable, practical measures to be taken when navigating in ice or conditions of ice accretion on board the vessel;

.8 the use of, and manoeuvring in, traffic separation schemes;

.9 the importance of navigating at reduced speed to avoid damage caused by own vessel's bow or stern wave;

.10 transferring fish at sea to factory ships or other vessels.

8 Fishing vessel construction and stability

8.1 General knowledge of the principal structural members of a vessel and the proper names of the various parts.

8.2 Knowledge of the theories and factors affecting trim and stability and measures necessary to preserve safe trim and stability.

8.3 Demonstrate use of stability and trim tables and pre-calculated operating conditions.

8.4 Knowledge of effects of free surfaces and ice accretion, where applicable.

8.5 Knowledge of effects of water on deck.

8.6 Knowledge of the significance of weathertight and watertight integrity.

9 Catch handling and stowage

9.1 The stowage and securing of catch on board vessels, including fishing gear.

9.2 Loading and discharging operations, with special regard to heeling moments from gear and catch.

10 Fishing vessel power plants

10.1 Operating principles of marine power plants in fishing vessels.

10.2 Vessel's auxiliary machinery.

10.3 General knowledge of marine engineering terms.

11 Fire prevention and fire-fighting appliances

11.1 Organization of fire drills.

11.2 Classes and chemistry of fire.

11.3 Fire-fighting systems.

11.4 Attendance at an approved fire-fighting course.

11.5 Knowledge of provisions concerning fire-fighting equipment.

12 Emergency procedures

12.1 Precautions when beaching a vessel.

12.2 Action to be taken prior to, and after, grounding.

12.3 Action to be taken when the gear becomes fast to the ground or other obstruction.

12.4 Floating a grounded vessel, with and without assistance.

12.5 Action to be taken following a collision.

12.6 Temporary plugging of leaks.

12.7 Measures for the protection and safety of crew in emergencies.

12.8 Limiting damage and salving the vessel following a fire or explosion.

12.9 Abandoning ship.

12.10 Emergency steering, rigging and use of jury steering and the means of rigging a jury rudder, where practicable.

12.11 Rescuing persons from a ship in distress or from a wreck.

12.12 Man-overboard procedures.

12.13 Towing and being towed.

13 Medical care

13.1 Knowledge of first aid.

13.2 Knowledge of procedures for obtaining medical advice by radio.

13.3 A thorough knowledge of the use of the following publications:

.1 International Medical Guide for Ships or equivalent national publications.

.2 Medical section of the International Code of Signals.

14 Maritime law

14.1 A knowledge of international maritime law as embodied in the international agreements and conventions as they affect the specific obligations and responsibilities of the skipper, particularly those concerning safety and the protection of the marine environment. Particular regard should be paid to the following subjects:

.1 certificates and other documents required to be carried on board fishing vessels by international conventions, how they may be obtained and the period of their legal validity;

.2 responsibilities under the relevant requirements of the Torremolinos International Convention for the Safety of Fishing Vessels, 1977;

.3 responsibilities under the relevant requirements of chapter V of the International Convention for the Safety of Life at Sea, 1974;

.4 responsibilities under international conventions for the prevention of pollution from ships;

.5 maritime declarations of health; the requirements of the international health regulations;

.6 responsibilities under the Convention on the International Regulations for Preventing Collisions at Sea, 1972;

.7 responsibilities under other international instruments affecting the safety of the ship and crew.

14.2 The extent of knowledge of national maritime legislation is left to the discretion of the Administration but should include national arrangements for implementing applicable international agreements and conventions.

15 English language

15.1 Adequate knowledge of the English language enabling the skipper to use charts and other nautical publications, to understand meteorological information and measures concerning the vessel's safety and operation and to express himself clearly in his communications with other ships or coast stations. Ability to understand and use the IMO Standard Marine Navigational Vocabulary.

16 Communications

16.1 Ability to transmit and receive messages by Morse light and to use the International Code of Signals; where the Administration has examined candidates in these subjects at lower levels of certification, they may have the option of not re-examining in these subjects.

16.2 Knowledge of procedures used in radiotelephone communication and ability to use radiotelephone equipment, in particular with respect to distress, urgency, safety and navigational messages.

16.3 Knowledge of the adverse effect of misuse of the radiotelephone equipment.

16.4 Where appropriate, a knowledge of the procedures for emergency distress signal by radiotelegraphy as prescribed in the Radio Regulations.

17 Life-saving

17.1 A thorough knowledge of the regulations on life-saving appliances and on emergency procedures, musters and drills (the Torremolinos International Convention for the Safety of Fishing Vessels, 1977), organization of abandon ship drills, lifeboats, liferafts and other life-saving equipment.

18 Search and rescue

18.1 A thorough knowledge of the IMO Merchant Ship Search and Rescue Manual (MERSAR).

19 The FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels

19.1 Knowledge of part A.

20 Methods for demonstration of proficiency

20.1 Navigation.

20.1.1 Demonstrate the use of sextant, pelorus, azimuth mirror, ability to plot position, course, bearings.

20.2 Convention on the International Regulations for Preventing Collisions at Sea, 1972.

20.2.1 Use of small models displaying proper signals or lights, or navigation light simulator.

20.2.2 Manoeuvring board or radar simulator.

20.3 Radar.

20.3.1 Radar simulator or manoeuvring board.

20.4 Fire-fighting.

20.4.1 Attendance at an approved fire-fighting course.

20.5 Communications.

20.5.1 Visual and vocal practical test.

20.6 Life-saving.

20.6.1 Handling of life-saving appliances, including the donning of lifejackets.

ANNEX 3

RECOMMENDATION ON MINIMUM REQUIREMENTS FOR CERTIFICATION OF OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN UNLIMITED WATERS

1 Every officer in charge of a navigational watch on a fishing vessel of 24 metres in length and over operating in unlimited waters should hold an appropriate certificate.

2 Every candidate for certification should:

.1 be not less than 18 years of age;

.2 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;

.3 have approved seagoing service in the deck department on fishing vessels of not less than 24 months; however, the Administration may allow the substitution of:

.3.1 a short period of special training which is at least equivalent in value to the period of the required seagoing service it replaces;

.3.2 a period of approved seagoing service on merchant ships;

.4 have passed an appropriate examination or examinations to the satisfaction of the Administration. Such examination or examinations should include the material set out in the appendix to this Recommendation. A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate.

Appendix

MINIMUM KNOWLEDGE REQUIRED FOR CERTIFICATION OF OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN UNLIMITED WATERS

1 The syllabus given below is compiled for examination of candidates for certification as officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters.

2 Celestial navigation

Ability to use a celestial body to determine compass errors.

3 Terrestrial and coastal navigation

3.1 Ability to determine the vessel position by the use of:

.1 landmarks;

.2 aids to navigation, including lighthouses, beacons and buoys;

.3 dead reckoning, taking into account winds, tides, currents and speed by propeller revolutions per minute and by log.

3.2 Thorough knowledge of and ability to use navigational charts and publications such as sailing directions, tide tables, notices to mariners and radio navigational warnings.

4 Radar navigation

4.1 Knowledge of the fundamentals of radar and ability in the operation and use of radar and ability to interpret and analyse information obtained by use of radar including the following:

.1 factors affecting performance and accuracy;

.2 setting up and maintaining displays;

.3 detection of misrepresentation of information, false echoes, sea return, etc.;

.4 range and bearing;

.5 identification of critical echoes;

.6 course and speed of other ships;

.7 time and distance of closest approach of crossing, meeting or overtaking ships;

.8 detecting course and speed changes of other ships;

.9 effect of changes in own vessel's course or speed or both;

.10 application of the International Regulations for Preventing Collisions at Sea, 1972.

5 Watchkeeping

5.1 Demonstrate thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, including those Annexes concerned with safe navigation.

5.2 Demonstrate knowledge of the content of the Recommended Basic Principles to be Observed in Keeping a Navigational Watch on board Fishing Vessels.*

6 Electronic systems of position fixing and navigation

6.1 Ability to determine the ship's position by the use of electronic navigational aids to the satisfaction of the Administration.

7 Radio direction-finders and echo-sounders

7.1 Ability to operate the equipment and apply the information correctly.

8 Meteorology

8.1 Knowledge of shipborne meteorological instruments and their application.

8.2 Knowledge of the characteristics of the various weather systems.

9 Magnetic and gyro-compasses

9.1 Care and use of compasses and associated equipment.

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* Assembly resolution A.484(XII).

10 Radiotelephony and visual signalling

.1 Ability to transmit and receive messages by Morse light.

.2 Ability to use the International Code of Signals.

.3 Knowledge of procedures used in radiotelephone communications and ability to use radiotelephone equipment, in particular with respect to distress, urgency, safety and navigational messages.

.4 Knowledge of the adverse effect of misuse of radiotelephone equipment.

11 Fire prevention and fire-fighting appliances

.1 Knowledge of classes and chemistry of fire.

.2 Knowledge of fire-fighting systems and procedures.

.3 Attendance at an approved fire-fighting course.

12. Life-saving

Ability to direct abandon ship drills and knowledge of the operations of life-saving appliances and their equipment, including portable radio apparatus. Survival at sea techniques including attendance at an approved survival at sea course.

13 Emergency procedures and safe working practices for fishermen

Knowledge of the items listed in the appropriate sections of the FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels, part A, and in chapter VIII of the Annex to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977.

14 Fishing vessels manoeuvring and handling

Basic knowledge of manoeuvring and handling a fishing vessel, including the following:

.1 berthing, unberthing, anchoring and manoeuvring alongside other vessels at sea;

.2 manoeuvring during fishing operations with special regard to factors which could adversely affect the vessel's safety during such operations;

.3 effects of wind and tide/current on ship handling;

.4 manoeuvring in shallow water;

.5 management of fishing vessels in heavy weather;

.6 rescuing persons and assisting a ship or aircraft in distress;

.7 towing and being towed;

.8 man overboard procedure;

.9 where applicable, practical measures to be taken when navigating in ice or in conditions of ice accretion on board the vessel.

15 Fishing vessels construction

General knowledge of the principal structural members of a vessel.

16 Vessel stability

Knowledge of factors affecting stability and the use of stability information.

17 Catch handling and stowage

Knowledge of safe handling and stowage of catch and the effect of these factors on the safety of the vessel.

18 English language

Adequate knowledge of the English language enabling the officer to use charts and other nautical publications, to understand meteorological information and messages concerning ship's safety and operation. Ability to understand and use the IMO Standard Marine Navigational Vocabulary.

19 Medical aid

Knowledge of first aid procedures. Practical application of medical guides and advice by radio.

20 Search and rescue

Adequate knowledge of search and rescue procedures based on the IMO Merchant Ship Search and Rescue Manual (MERSAR).

21 Prevention of pollution of the marine environment

Knowledge of the precautions to be observed to prevent pollution of the marine environment.

ANNEX 4

RECOMMENDATION ON MINIMUM REQUIREMENTS FOR CERTIFICATION OF SKIPPERS ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN LIMITED WATERS

1 Every skipper on a fishing vessel of 24 metres in length and over operating in limited waters should, unless he holds a certificate issued in compliance with Annex 2, hold an appropriate certificate issued in compliance with at least the provisions of this Annex.

2 Every candidate for certification should:

.1 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;

.2 meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters and have approved seagoing service as an officer in charge of a navigational watch on fishing vessels of not less than 12 metres in length. However, an Administration may allow the substitution of a period of approved seagoing service as officer in charge of a navigational watch on merchant ships;

.3 have passed an appropriate examination or examinations to the satisfaction of the Administration. Such examination or examinations should include the material set out in the appendix to this Recommendation.

The Administration, bearing in mind the effect on the safety of all ships and structures which may be operating in the same limited waters, should consider the limited waters it has defined in accordance with Annex 1 to this resolution and determine any additional material that should be included in the examination or examinations.

A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate.

Appendix

MINIMUM KNOWLEDGE REQUIRED FOR CERTIFICATION OF SKIPPERS ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN LIMITED WATERS

1 The syllabus given below is compiled for examination of candidates for certification as skippers on fishing vessels of 24 metres in length and over operating in limited waters. Bearing in mind that the skipper has ultimate responsibility for the safety of the vessel and its crew at all times including during fishing operations, examination should be designed to test the candidate's ability to assimilate all available information that affects the safety of the vessel and its crew in accordance with the syllabus.

2 Navigation and position determination

2.1 Voyage planning and navigation for all conditions:

.1 by acceptable methods of determining tracks;

.2 within restricted waters;

.3 where applicable, in ice;

.4 in restricted visibility;

.5 where applicable, in traffic separation schemes;

.6 in areas affected by tides or currents.

2.2 Position determination:

.1 by terrestrial observations, including the ability to use bearings from landmarks and aids to navigation such as lighthouses, beacons and buoys in conjunction with appropriate charts, notices to mariners and other publications and assessment of the accuracy of the resulting position fix;

.2 using, to the satisfaction of the Administration, modern ship electronic navigational aids as provided in the fishing vessels concerned.

3 Watchkeeping

3.1 Demonstrate thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972 including those Annexes concerned with safe navigation.

3.2 Demonstrate knowledge of Recommended Basic Principles to be Observed in Keeping a Navigational Watch on Board Fishing Vessels .*

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* Assembly resolution A.484(XII).

4 Radar equipment

4.1 The Administration should decide whether or not to incorporate the radar syllabus below in the general requirements for certification of skippers. If the Administration decides not to include the syllabus in the general requirements, it should ensure that the syllabus is taken into account for purposes of certification of skippers serving on vessels fitted with radar equipment and plying within limited waters.

4.2 Knowledge of the fundamentals of radar and ability in the operation and use of radar, and in the interpretation and analysis of information obtained from the equipment, including:

.1 factors affecting performance and accuracy;

.2 setting up and maintaining displays;

.3 detection of misrepresentation of information, false echoes, sea return, etc.;

.4 range and bearing;

.5 identification of critical echoes;

.6 course and speed of other ships;

.7 time and distance of closest approach of crossing, meeting or overtaking ships;

.8 detecting course and speed changes of other ships;

.9 effect of changes in own vessel's course or speed or both;

.10 application of the International Regulations for Preventing Collisions at Sea, 1972.

5 Compasses

5.1 Ability to determine and apply compass errors.

6 Meteorology and oceanography

6.1 Knowledge of meteorological instruments and their application.

6.2 Ability to apply meteorological information available.

6.3 Knowledge of characteristics of various weather systems affecting the limited waters concerned, at the discretion of the Administration.

6.4 Knowledge of weather conditions affecting the limited waters concerned liable to endanger the vessel, at the discretion of the Administration.

6.5 Where applicable, ability to use appropriate navigational publications on tides and currents.

7 Fishing vessel manoeuvring and handling

7.1 Manoeuvring and handling of a fishing vessel in all conditions including the following:

.1 berthing, unberthing and anchor work under various conditions of wind and tide;

.2 manoeuvring in shallow water;

.3 management and handling of fishing vessels in heavy weather, including appropriate speed, particularly in following and quartering seas, assisting a ship or aircraft in distress, means of keeping an unmanageable vessel out of a sea trough, lessening drift and use of oil;

.4 manoeuvring the vessel during fishing operations with special regard to factors which could adversely affect the vessel's safety during such operations;

.5 precautions in manoeuvring for launching boats or liferafts in bad weather;

.6 methods of taking on board survivors from lifeboats or liferafts;

.7 where applicable, practical measures to be taken when navigating in ice or conditions of ice accretion on board the vessel;

.8 where applicable, the use of, and manoeuvring in, traffic separation schemes;

.9 the importance of navigating at reduced speed to avoid damage caused by own vessel's bow or stern wave;

.10 transferring fish at sea to factory ships or other vessels.

8 Fishing vessel construction and stability

8.1 General knowledge of the principal structural members of a vessel and the proper names of the various parts.

8.2 Knowledge of the theories and factors affecting trim and stability and measures necessary to preserve safe trim and stability.

8.3 Demonstrate use of stability information as supplied to fishing vessels.

8.4 Where applicable, knowledge of effects of free surfaces and ice accretion.

8.5 Knowledge of effects of water on deck.

8.6 Knowledge of the significance of weathertight and watertight integrity.

9 Catch handling and stowage

9.1 The stowage and securing of catch on board vessels, including fishing gear.

9.2 Loading and discharging operations, with special regard to heeling moments from gear and catch.

10 Fishing vessel power plants

10.1 Operating principles of marine power plants in fishing vessels.

10.2 Vessel's auxiliary machinery.

10.3 General knowledge of marine engineering terms.

11 Fire prevention and fire-fighting appliances

11.1 Organization of fire drills.

11.2 Classes and chemistry of fire.

11.3 Fire-fighting systems.

11.4 Attendance at an approved fire-fighting course.

11.5 Knowledge of provisions concerning fire-fighting equipment.

12 Emergency procedures

12.1 Precautions when beaching a vessel.

12.2 Action to be taken prior to, and after, grounding.

12.3 Action to be taken when the gear becomes fast to the ground or other obstruction.

12.4 Floating a grounded vessel, with and without assistance.

12.5 Action to be taken following a collision.

12.6 Temporary plugging of leaks.

12.7 Measures for the protection and safety of crew in emergencies.

12.8 Limiting damage and salving the vessel following a fire or explosion.

12.9 Abandoning ship.

12.10 Emergency steering, rigging and use of jury steering and the means of rigging a jury rudder, where practicable.

12.11 Rescuing persons from a ship in distress or from a wreck.

12.12 Man-overboard procedures.

12.13 Towing and being towed.

13 Medical care

13.1 Knowledge of first aid.

13.2 Practical application of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board the vessel.

14 Maritime law

14.1 Taking into account the limited waters as defined by the Administration, a knowledge of international maritime law as embodied in the international agreements and conventions as they affect the specific obligations and responsibilities of the skipper in the waters concerned, particularly those related to safety and the protection of the marine environment.

14.2 The extent of knowledge of national maritime legislation is left to the discretion of the Administration but should include national arrangements for implementing applicable international agreements and conventions.

15 Communications

15.1 Knowledge of radiotelephony and visual signalling to the extent required by the Administration.

15.2 Knowledge of the adverse effect of misuse of the radiotelephone equipment.

16 Life-saving

16.1 Knowledge of life-saving appliances provided on fishing vessels. Organization of abandon ship drills and the use of the equipment.

17 Search and rescue

17.1 Knowledge of search and rescue procedures.

18 The FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels, Part A

18.1 Knowledge of such sections as may be required by the Administration.

19 Methods for demonstration of proficiency

19.1 The Administration should prescribe appropriate methods for demonstration of proficiency in relevant requirements of this appendix.

ANNEX 5

RECOMMENDATION ON MINIMUM REQUIREMENTS FOR CERTIFICATION OF OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN LIMITED WATERS

1 Every officer in charge of a navigational watch on a fishing vessel of 24 metres in length and over operating in limited waters should, unless he holds a certificate issued in compliance with Annex 3, hold an appropriate certificate issued in compliance with at least the provisions of this Annex.

2 Every candidate for certification should:

.1 be not less than 18 years of age;

.2 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;

.3 have approved seagoing service in the deck department on fishing vessels of not less than 24 months; however, the Administration may allow the substitution of:

.3.1 a short period of special training which is at least equivalent in value to the period of the required seagoing service it replaces;

.3.2 a period of approved seagoing service on merchant ships;

.4 have passed an appropriate examination or examinations to the satisfaction of the Administration. Such examination or examinations should include the material set out in the appendix to this Recommendation. A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate.

Appendix

MINIMUM KNOWLEDGE REQUIRED FOR CERTIFICATION OF OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH ON FISHING VESSELS OF 24 METRES IN LENGTH AND OVER OPERATING IN LIMITED WATERS

1 The syllabus given below is compiled for examination of candidates for certification as officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters.

2 Terrestrial and coastal navigation

2.1 Ability to determine the vessel's position by the use of:

.1 landmarks;

.2 aids to navigation, including lighthouses, beacons and buoys;

.3 dead reckoning, taking into account winds, tides, currents and speed by propeller revolutions per minute and by log.

2.2 Thorough knowledge of and ability to use navigational charts and publications such as sailing directions, tide tables, notices to mariners and radionavigational warnings.

3 Radar navigation

3.1 The Administration should decide whether or not to incorporate the radar syllabus below in the general requirements for certification of officers in charge of a navigational watch. If the Administration decides not to include the syllabus in the general requirements, it should ensure that the syllabus is taken into account for purposes of certification of officers in charge of a navigational watch serving on vessels fitted with radar equipment and plying within limited waters.

3.2 Knowledge of the fundamentals of radar and ability in the operation and use of radar and ability to interpret and analyse information obtained by use of radar, including the following:

.1 factors affecting performance and accuracy;

.2 setting up and maintaining displays;

.3 detection of misrepresentation of information, false echoes, sea returns, etc.;

.4 range and bearing;

.5 identification of critical echoes;

.6 course and speed of other ships;

.7 time and distance of closest approach of crossing, meeting or overtaking ships;

.8 detecting course and speed changes of other ships;

.9 effect of changes in own vessel's course or speed or both;

.10 application of the International Regulations for Preventing Collisions at Sea, 1972.

4 Watchkeeping

4.1 Demonstrate thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972 including those Annexes concerned with safe navigation.

4.2 Demonstrate knowledge of the content of Recommended Basic Principles to be Observed in Keeping a Navigational Watch on Board Fishing Vessels.*

5 Electronic systems of position fixing and navigation

5.1 Ability to determine the ship's position by the use of electronic navigational aids, where applicable, to the satisfaction of the Administration.

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* Assembly resolution A.484(XII)

6 Meteorology

6.1 Knowledge of shipborne meteorological instruments and their application.

6.2 Knowledge of the characteristics of the various weather systems affecting the limited waters concerned.

7 Compasses

7.1 Ability to determine and apply compass errors.

8 Communications

8.1 Knowledge of radiotelephony and visual signalling to the extent required by the Administration.

8.2 Knowledge of the adverse effect of misuse of radiotelephone equipment.

9 Fire-fighting

9.1 Knowledge of fire prevention and use of fire-fighting appliances.

9.2 Attendence at an approved fire-fighting course.

10 Life-saving

10.1 Knowledge of life-saving appliances provided on fishing vessels. Organization of abandon ship drills and the use of the equipment.

10.2 Attendance at an approved survival at sea course.

11 Emergency procedures and safe working practices for fishermen

11.1 Knowledge of the items listed in the appropriate sections of the FAO/ILO/IMO Code of Safety for Fishermen and Fishing Vessels, part A, and in chapter VIII of the Annex to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977.

12 Fishing vessels manoeuvring and handling

12.1 Basic knowledge of manoeuvring and handling a fishing vessel, including the following:

.1 berthing, unberthing, anchoring and manoeuvring alongside other vessels at sea;

.2 manoeuvring during fishing operations with special regard to factors which could adversely affect the vessel's safety during such operations;

.3 effects of wind and tide/current on ship handling;

.4 manoeuvring in shallow water;

.5 management of fishing vessels in heavy weather;

.6 rescuing persons and assisting a ship or aircraft in distress;

.7 towing and being towed;

.8 man overboard procedure;

.9 where applicable, practical measures to be taken when navigating in ice or in conditions of ice accretion on board the vessel.

13 Vessel stability

13.1 Knowledge of factors affecting stability and the use of stability information.

14 Catch handling

14.1 Knowledge of safe handling and stowage of catch and the effect of these factors on the safety of the vessel.

15 Fishing vessels construction

15.1 General knowledge of the principal structural members of a vessel.

16 Medical aid

16.1 Knowledge of first aid procedures. Practical application of medical guides and advice by radio.

17 Search and rescue

17.1 Knowledge of search and rescue procedures.

18 Prevention of pollution of the marine environment

18.1 Knowledge of the precautions to be observed to prevent pollution of the marine environment.

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BASIC PRINCIPLES TO BE OBSERVED IN KEEPING A NAVIGATIONAL WATCH ON BOARD FISHING VESSELS

THE ASSEMBLY,

RECALLING Article 16(i) of the Convention on the Inter-Governmental Maritime Consultative Organization,

BEARING IN MIND that Article III of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, excludes application to fishing vessels of the basic principles relating to watchkeeping given in that Convention,

TAKING INTO ACCOUNT recommendation 39 of the International Conference on Safety of Life at Sea, 1960,

DESIRING to promote safety of life at sea and protection of the marine environment,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its forty-fourth session,

1. ADOPTS the recommendation on basic principles to be observed in keeping a navigational watch on board fishing vessels given in the Annex to the present resolution;

2. URGES Member Governments to implement the measures contained in the recommendation as soon as possible.

ANNEX

RECOMMENDED BASIC PRINCIPLES TO BE OBSERVED IN KEEPING A NAVIGATIONAL WATCH ON BOARD FISHING VESSELS

1 The competent authority should ensure that owners and operators of fishing vessels, skippers and watchkeeping personnel observe the following principles to ensure that a safe navigational watch is maintained at all times.

2 The skipper of every fishing vessel is bound to ensure that watchkeeping arrangements are adequate for maintaining a safe navigational watch. Under the skipper's general direction, the officers of the watch are responsible for navigating the vessel safely during their periods of duty when they will be particularly concerned with avoiding collision and stranding.

3 The basic principles, including but not limited to the following, should be taken into account on all fishing vessels. However, an Administration may exclude very small fishing vessels from fully observing the basic principles.

4 En route to or from fishing grounds

4.1 Arrangements of the navigational watch

4.1.1 The composition of the watch should at all times be adequate and appropriate to the prevailing circumstances and conditions and should take into account the need for maintaining a proper look-out.

4.1.2 When deciding the composition of the watch the following factors, inter alia, should be taken into account:

.1 at no time should the wheelhouse be left unattended;

.2 weather conditions, visibility and whether there is daylight or darkness;

.3 proximity of navigational hazards which may make it necessary for the officer in charge of the watch to carry out additional navigational duties;

.4 use and operational condition of navigational aids such as radar or electronic position-indicating devices and any other equipment affecting the safe navigation of the vessel;

.5 whether the vessel is fitted with automatic steering;

.6 any unusual demands on the navigational watch that may arise as a result of special operational circumstances.

4.2 Fitness for duty

4.2.1 The watch system should be such that the efficiency of watchkeeping personnel is not impaired by fatigue. Duties should be so organized that the first watch at the commencement of a voyage and the subsequent relieving watches are sufficiently rested and otherwise fit for duty.

4.3 Navigation

4.3.1 The intended voyage should, as far as practicable, be planned in advance taking into consideration all pertinent information and any course laid down should be checked before the voyage commences.

4.3.2 During the watch the course steered, position and speed should be checked at sufficiently frequent intervals, using any available navigational aids necessary, to ensure that the vessel follows the planned course.

4.3.3 The officer in charge of the watch should have full knowledge of the location and operation of all safety and navigational equipment on board the vessel and should be aware and take account of the operating limitations of such equipment.

4.3.4 The officer in charge of a navigational watch should not be assigned or undertake any duties which would interfere with the safe navigation of the vessel.

4.4 Navigational equipment

4.4.1 The officer in charge of the watch should make the most effective use of all navigational equipment at his disposal.

4.4.2 When using radar the officer in charge of the watch should bear in mind the necessity to comply at all times with the provisions on the use of radar contained in the applicable regulations for preventing collisions at sea.

4.4.3 In cases of need the officer of the watch should not hesitate to use the helm, engines and sound signalling apparatus.

4.5 Navigational duties and responsibilities

4.5.1 The officer in charge of the watch should:

.1 keep his watch in the wheelhouse which he should in no circumstances leave until properly relieved;

.2 continue to be responsible for the safe navigation of the vessel despite the presence of the skipper in the wheelhouse until the skipper informs him specifically that he has assumed that responsibility and this is mutually understood;

.3 notify the skipper when in any doubt as to what action to take in the interest of safety;

.4 not hand over the watch to a relieving officer if he has reason to believe that the latter is obviously not capable of carrying out his duties effectively, in which case he should notify the skipper accordingly.

4.5.2 On taking over the watch the relieving officer should satisfy himself as to the vessel's estimated or true position and confirm its intended track, course and speed and should note any dangers to navigation expected to be encountered during his watch.

4.5.3 Whenever practicable a proper record should be kept of the movements and activities during the watch relating to the navigation of the vessel.

4.6 Look-out

4.6.1 In addition to maintaining a proper look-out for the purpose of fully appraising the situation and the risk of collision, stranding and other dangers to navigation, the duties of the look-out should include the detection of ships or aircraft in distress, shipwrecked persons, wrecks and debris. In maintaining a look-out the following should be observed:

.1 The look-out must be able to give full attention to the keeping of a proper look-out and no other duties shall be undertaken or assigned which could interfere with that task.

.2 The duties of the look-out and helmsman are separate and the helmsman should not be considered to be the look-out while steering except where an unobstructed all-round view is provided at the steering position and there is no impairment of night vision or other impediment to the keeping of a proper look-out. The officer in charge of the watch may be the sole look-out in daylight provided that on each such occasion:

.2.1 the situation has been carefully assessed and it has been established without doubt that it is safe to do so;

.2.2 full account has been taken of all relevant factors including, but not limited to:

- state of weather
- visibility
- traffic density
- proximity of danger to navigation
- the attention necessary when navigating in or near traffic separation schemes;

.2.3 assistance is immediately available to be summoned to the wheelhouse when any change in the situation so requires.

4.7 Protection of the marine environment

4.7.1 The skipper and the officer in charge of the watch should be aware of the serious effects of operational or accidental pollution of the marine environment and should take all possible precautions to prevent such pollution particularly within the framework of relevant international and port regulations.

4.8 Weather conditions

4.8.1 The officer in charge of the watch should take relevant measures and notify the skipper when adverse changes in weather could affect the safety of the vessel, including conditions leading to ice accretion.

5 Navigation with pilot embarked

5.1 Despite the duties and obligations of a pilot, his presence on board does not relieve the skipper or officer in charge of the watch from their duties and obligations for the safety of the vessel. The skipper and the pilot should exchange information regarding navigation procedures, local conditions and the vessel's characteristics. The skipper and the officer of the watch should co-operate closely with the pilot and maintain an accurate check of the vessel's position and movement.

6 Vessels engaged in fishing or searching for fish

6.1 In addition to the principles enumerated in section 4, the following factors should be considered and properly acted upon by the officer in charge of the watch:

.1 other vessels engaged in fishing and their gear;

.2 safety of the crew on deck;

.3 adverse effects on the safety of the vessel and its crew through reduction of stability and freeboard caused by exceptional forces resulting from fishing operations, catch handling and stowage, and unusual sea and weather conditions.

.4 the proximity of offshore structures, with special regard to the safety zones;

.5 wrecks.

6.2 When stowing the catch, attention should be given to the essential requirements for adequate freeboard and adequate stability at all times during the voyage to the landing port taking into consideration consumption of fuel and stores, risk of adverse weather conditions and, especially in winter, risk of ice accretion on or above exposed decks in areas where ice accretion is likely to occur.

INTERPRETAION OF THE NATIONAL MANDATORY REQUIREMENTS FOR QUALIFYING FOR THE EXAMINATION AND CERTIFICATION OF COXSWAIN, MATE (FISHING) AND MOTORMAN GRADE II

Coxswain:

1. A candidate for examination of coxswain must not be less than 18 years of age and must have had at least two years experience as a deckhand at sea in sea-going fishing boats. However, under the regulation of 1963 for examination for certificate of competency (Deck) chapter 4 section 44 allows 50% of time spent on training ships to count as sea-service, but the training ship must be approved by the ship inspectorate division of the Federal Ministry of Transport (GIS). Section 45 provides that a boy of over 16 years of age who has attended (with a proof) at least one academic year course in an approved residential college may have maximum of one year sea-service remission. If non residential only six months remission.

2. He must pass the ministry sight test before he can receive a certificate of competency. The test is in accordance with Appendix 2 of the certificate of competency (Deck) Regulation 1963.

3. He must produce to the examiner a certificate signed by his employer at sea, to the effect that he can steer a boat efficiently and that he is of good character.

4. The certificate of competency will permit him to command a boat of maximum length of 60 feet for a continuous period of not more than 12 hours. If the period on such larger boat is in excess of 12 hours their must be at least 2 coxswains.

5. He may also be qualified for examination if he has certificate of able-seaman and served on fishing vessel, or as Rivermaster or Quartermaster who has served 12 months on fishing vessels (sea-going).

6. Subjects to be taught:

The Merchant Shipping (Examination for certificate of competency) fishing Regulations 1964, first schedule provides that the following subjects must be taught and will be tested in the Oral Examination for the issuance of certificate of competency coxswain.

1. Use of Admiralty Chart or plan. The knowledge to be derived from it.
2. The marking and use of the lead-line.
3. How to improvize and use sea-anchor.
4. Fire-fighting on board ship.
5. Life-saving appliances and fire appliances required to be carried in fishing boats of up to 70 feet in length; care and maintenance of life-boats and their equipment, bouyancy apparatus, lifebouys and life-jackets.
6. Man-overboard and necessary action.
7. Management of lifeboat in heavy weather and in surf.
8. A good knowledge of the collision regulations.
9. Signals of distress.
10. The uniform system of bouyage.
11. The signal flag meanings of the international code of signals.
12. Any other questions relating to the duties of a coxswain of a fishing boat which the examinee may think necessary.

7. Mate Fishing

1. A candidate for examination of mate fishing must not be less than 20 years of age and shall have had at least two years service as coxswain in sea-going fishing boats. However, the two years sea-service is subject to remission as described under coxswain de-pending, in this case, the length of time spent in school after the aquisition of the coxswain certificate of competency.

2. The eye sight certificate lapses after 3 months, therefore candidates must have to under go an eye-test as prescribed under coxswain.

8. Subjects to be taught:

Subjects to be taught must be in accordance to the Merchant Shipping (Examination for Certificates of Competency) (fishing) Regulation of 1964, first schedule part 3. These subjects are split into 3 broad headings, chartwork, practical navigation and orals.* This certificate permits holder to command a boat not exceeding 100 feet.

Motorman Grade II

1. A candidate for examination of certificate of competency must be more than 18 years of age.
2. He must have served at sea in a sea-going fishing boat in a junior engine room capacity for at least one year.
3. His certificate will be endorsed for the type of engine he has been trained on, except he applies to be tested on all types of engine prior to the examination. In anycase the size of engine will be limited and endorsed on the certificate.
4. This certificate will only permit holder to be incharge of engine room of a sea-going fishing boat not exceeding 60 feet in length.

9. Knowledge Requirements

1. A thorough knowledge of the working of an internal combustion engine of petrol, diesel and semi-diesel - types.
2. Be conversant with starting, stopping, reversing and other operations connected therewith.

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* Reference to Annex 1, for details of subjects to be taught.

3. Maintenance of engine knowledge of common faults and their remedies.
4. Precaution against fire and explosion due to gas or oil, spontaneous combustion etc.
5. Fire extinguishers and method of dealing with fire.
6. Auxiliaries and switchboard.

FEDERAL SCHOOL OF FISHERIES SYLLABUS FOR ENGINEERS AND NAVIGATORS.

5. REFRIGERATION

5.1. Principles of Refrigeration (Refrigeration cycles)

5.2. Refrigerants

5.3. Lubrication oils

5.4. Compressers

5.5. Condensers

5.6. Evaporators

5.7. Expansion valves

5.8. Plant safety devices

5.9. Types of ice - making plants and their maintenance

5.10. Types of freezing equipment

5.11. Design and installation of cold stores

6. FISH PROCESSING AND PRESERVATION

6.1. Methods of analysis of fish and fish products

6.1.1. physical components of fish and fish products: water lipid, salt, ash nitrogen etc.

6.1.2. quality assessement of fish and fish products:-

organoleptic and chemical methods

6.2. Fish spoilage

6.3. Handling and preservation of fish

6.4. Principle of chilling wet fish

6.5. Principles of freezing fish

6.6, Principle of cold storage

6.7. Principles of fish drying, salting and smoking

6.8. Bacteriology

6.9. International standards for fish quality

6.10. Fish processing machinery

6.11. Fish canning (General)

6.12. Hygiene

6.13. Fish packaging and storage.

6.14. Technology of fish distribution and marketing

6.15. Fish meal and fish protein concentrate

6.16. Other fish products and by-products

7. FISHING GEAR AND METHODS

7.1. Properties and costs of natural and synthetic fibres

7.2. Properties of twines, their nomenclature and numbering systems

7.3. Reading specifications

7.4. Classification of fishing gears

7.5. The design, construction, repair and operation of traps, pots, hook and lines, cast nets, beach seines, ring nets, purse seines and trawl nets.

7.6. General consideration in the choice of gears

7.7. Maintenance of gear

8. FISHING BOAT DESIGN CONSTRUCTION AND MAINTENANCE

8.1. Construction materials

8.2. Terminology of parts of a boat

8.3. Boat building tools and methods

8.4. Types of boats and hull forms

8.5. Care and maintenance of boats

8.6. Simple plan reading

8.7. General considerations in designing a boat

8.8. General considerations in boatyard design.

9. ENGINEERING

9.1. Main engineering requirements of a fishing vessel

9.2. Internal combustion engines:-

the 2 - stroke cycle (Outboard)

the 4 - stroke cycle (Diesel and petrol)

9.3. Diesel engine basic principles, component parts and construction

9.4 Fuel supply and circuitry (iboard and outboard)

9.5 Fuel injection pumps and their maintenance (Diesel)

9.6 Engine lubrication and supply systems and their maintenance (inboard and outboard)

9.7 Engine lubricants (inboard and outboard)

9.8 Engine cooling systems (inboard and outboard)

9.9 Gear boxes, reduction gears, stern tubes and "Z" drives

9.10 Basic engine installation (inboard and outboard)

9.11 Relationship between boat capacity, speed and engine power (inboard and outboard)

9.12 Service and technical facilities (inboard and outboard)

9.13 Spare parts distribution (inboard and outboard).

9.14 Land vehicles maintenance.

FISHING AND NAVIGATIONAL AIDS

Operation, interpretation of echoes, adjustment care and maintenance of:

10.1. Echo sounder

10.2. Sonar

10.3. Radar, Direction finder, loran, consol

10.4. Radio telephony.

ELEMENTARY NAVIGATION AND SEAMANSHIP

11.1. Introduction to physical geography maps and charts,

11.2 Magnetism, the compass and deviations

11.3 Chart work - coordinates and position fixing

11.4. Weather studies

11.5 Use of distress signals

11.6. Operation and maintenance of life-saving and fire-fighting equipment

11.7. First aid

11.8. Swimming

11.9. Crew organisation in boars

11.10. Rules of the "road"

11.11. Operation of outboard engines.

FEDERAL SCHOOL OF FISHERIES COURSES OF STUDY AND ENTRY REQUIREMENTS.

1. Fisheries Proficiency Certificates

a) Admission Requirement:	Basic elementary School Leaving Certificate
b) Yearly in-take	About 20 Students but varied from time to time
c) Duration:	2 months
d) Subject Taught:	Fishing Gear, Elementary Seamanship, Mathematics, English and Fish Processing
e) Certificate Awarded:	Fisheries Proficiency Certificate

2) Coxwain Course

a) Admission Requirements:	West African School Cert. or S.75
b) Yearly In-take:	About 15 Students but based on manpower requirements by the Fisheries establishments.
c) Duration:	6 months
d) Subject Taught:	Navigation, Fishing Gear, Rule of the Road, Mathematics, and Seamanship
e) Certificate Awarded	Certificate of Competency

3) Motormen Grade II Course

a) Admission Requirements:	West African School Cert. or S.75
b) Yearly In-take	About 10 Students based on manpower needs

c) **Duration:**	Two years
d) **Subject Taught:**	Physics, Chemistry, Workshop Technology, Diesel, Refrigeration, Electricity, Gear Tech, Marine Auxilliary, Technical Drawing and Workshop Practice. The first year is spent in the School while the second year is spent on board Fishing Vessels
e) **Certificate Awarded:**	Certificate of Competency

4) Mate (Fishing)

a) **Admission Requirements:**	Coxswain Certificate of Competency
b) **Yearly In-take:**	About 15 Students based on Manpower needs
c) **Duration**	Two years
d) **Subject Taught:**	Navigation, Gear Technology, Rules of the Road, Seamanship, English and Mathematics. The first year is spent in the School while the second year is mainly spent on board fishing vessel as part of the Institutional Training. Candidates will be attached to fishing coys at the end of the seond year for them to meet the Ministry of Transport Competency Certificate requirements.
e) **Certificate Awarded:**	Certificate of Competency

INTERPRETATION OF FISHING BOAT MANNING PROVISIONS OF THE NIGERIAN SHIPPING LAWS

The Merchant Shipping (Fishing Boat) Regulations, 1963 provides amongst other things in part III - certificate of competency the manning requirements for sea-going fishing boats. For clarity and easy understanding, these provisions have been tabulated as shown in Table 11. But paragraph 11 (2) provide that every fishing boat operating in inland waters only shall carry onboard for service Rivermaster, Quartermasters, Riverman, Engineers, Engineering Assistances or Motormen in accordance with the provision of the Merchant Shipping Manning Regulations 1963, relating to inland waters vessels of similar size and horsepower. Although the provisions of this latter regulation specifically exempt fishing boat, this paragraph 11 (2) overides the exemption because there is no other provision for the determination of the manning requirements of inland fishing vessels. In view of this paragraph I have imposed these provisions on the Table 11 to provide a comprehensive full range manning scale as provided by the existing regulations in the fishing industry of Nigeria.

The Anomalies of these provisions:

1. For vessels longer than 100 feet operating in distant waters (sea-going) a third engineer is required to complement Motorman Grade I (fishing). This should not be the case, in my professional experience the knowledge requirements and experience of Motorman Grade I (fishing) should be good enough to man any size of sea-going vessels. Afterall a sea-going fishing boat may have in excess of say 3,000 KW propulsion power which will attract Chief Engineer home trade or Second Engineer foreign going similarly Motorman Grade I (fishing) is expected to have equivalent knowledge these calibre of Engineers. My proposal covers this anomaly.

2. Inland water provision is inadequate. Let us take a look at the Department of Fisheries rules and regulations. It states that if a fishing boat is to operate in Nigerian Territorial Waters it should not be longer than 83 feet (25.3 metres) length overall and gross tonnage not more than 150. If such a vessel is to operate for shrimping it should not be above 76 feet with a gross tonnage not exceeding 100. This provision therefore allows vessels as long as 83 feet (and there are many of them see Tables 6,7,8) to be licenced. Considering that territorial waters of Nigeria is 30 nautical miles of the coast measured from low water mark or the seaward limit of inland waters, a better trained person than a

rivermaster must be required for vessels of 83 feet operating in tidal waters within the area described. In fact the provision states that 100 GRT and above without any top limit. It is assumed in this project that the Department of Fisheries will not change the 83 feet limit and raise it to say 200 feet and above which may still leave the provision of a Rivermaster in command.

A proposal is made to alleviate these anomalies in chapter 7. Where, if fishery training is going to be properly organised a composite national plan be approved and all interested parties be made aware. My proposal maybe subject to criticism which will be welcomed.

Name and address of Shipowner or Company:_____

I certify that the following is a full and true statement of the sea-service performed by: (name and address of officer or Trainee)_____ under my supervision (name of Captain(Skipper)or Chief Engineer(MMF)and certificate number and where obtained)_____.

Name and official N° of vessels	Period of Joining vessel		Rank of Personnel and actual Seniority on duties	Type of ship/main prepulsion engines		Nature of duties performed
	From	To	Insert a,b and/or c	GRT/length	KW(Power)	Insert d,e,f and/or c

Notes: a, Assistant to Officer Incharge
b, Officer Incharge
c, Forming part of the Watch
d, Within Main Engine and Auxiliary Spaces
e, Outside Main Engine and Auxiliary Spaces
f, On Refrigeration plants
g, On other ship equipment outside the Main Engine Spaces

Report as to Ability:_____

Report as to Conduct:_____

Report as to absence from duty due to ill-health:_____

Signature of Chief Engineer or Master(Skipper):_____

Date:_____

Remarks:_____

Signature of Owner or Employers Representative:_____

BIBLIOGRAPHY

BIBLIOGRAPHY

Duze, M. "Primary Atlas For Lagos State", pg.11.

Davidson, B. "A History of West Africa", 1965, Logmans.

Ssentongo, G.W. and Ajayi, T.O. "Project Report On A Resource Appraisal Of The Artisanal And Inshore Fisheries Of Nigeria". FAO Field Document 2 Nov. 1983.

"Fisheries Statistics Of Nigeria." Federal Department of Fisheries. 1st Ed. 1980.

Ohaniawo, A. A. "Problems of Manpower Training In The Fisheries Sector of Nigeria's Agriculture". Research Officer Department of Fisheries, Lagos.

"Report of the National Fisheries Development Committee (NFDC) Sub-Committee on Manpower Development And Training", Draft 1977, Department of Fisheries, Lagos.

"National Development Plan - Project Particulars". Federal Fisheries School. Department of Fisheries.

Food And Agriculture Organization FAO Report, No 255 - "Fishery Committee For The Eastern Central Atlantic (CECAF)", 1981, pg. 29-30, 89-95.

"Definition and Classification of Fishing Gear Categories" FAO Fisheries Technical, Paper No 222, 1982.

Grofit, E. "The Fishing Technology Unit" FAO Fisheries Technical Paper No. 199, 1980.

"Proceedings of the Second Annual Conference of the Fisheries Society of Nigeria (FISON)" Calabar (Nigeria 25th-27th Jan. 1982, Printed by Kainji Research Institute, New Bussa (Nigeria) pg. 14-91, 151-207.

"British (Department of Trade) Certificate of Competency In The Merchant Navy Marine Engineer Officer Requirements", 1985.

Jens, J.L.E. Paper No. 4. Robinson, D.M. Paper No. 1. Paymans, P.J. Paper No. 12. "Proceedings of the Second West European Conference on Marine Technology." Safety at Sea. May 1977.

"The Education And Training of Merchant Marine Engineer Officers." Education Consultants of IMO. Draft 1985.

Jean, D. W. - "Artificial Structures and Traditional Uses Of The Sea: the field of conflict." Journal of Marine Policy, Volume 7, 1983.

International Labour Organisation Convention Nol 147, 1976.

Okpanefe, Moses O. "Agriculture and Natural Resources Fisheries Statistics Survey of Nigeria" Department of Fisheries.

"Lagos Plans To Merge Schools" Vanguard Newspaper Nigeria. June 1985 pg. 16.

Nyang, Ime, M. "Developing Nigeria's Fishing Industry" Daily Times Newspaper of Nigeria June 14, 1985.

"Integrated Fishing Projects From Denmark" The Danish Council of Consulting Architects and Engineers.

"Prospectus and Syllabus" Bergen Maritime High School, Norway.

"Training and Course Plan for Engineers and Skippers in Fisheries Schools", Bergen (Norway).

"AGRI News" Federal Department of Agricultural Planning, March-April 1983 Volume 4 No. 6.

"Federal Fisheries School" Handbook. Department of Fisheries. Institute of Marine Research and Oceanography Lagos Nigeria.

Agbakoba, E. Captain, "Nigerian Maritime Policy" 1984, Federal Ministry of Transport and Aviation, Lagos, Nigeria.

Adesanya, Z. A. "Extension Needs of Fishermen in Rural Community and Practical Steps to Meet Them" Report of National Seminar on the Integrated Development of Artisanal and Inshore Fisheries 15th - 16th April 1980.

"Philosophy and Objectives" Federal Fisheries School. Sept 1983.

"Fish and Fish Resources of Nigeria" Federal Ministry of Education, Science and Technology briefing 20/22 Feb. 1985.

Oyayide, S. O. Olatunbosun, Dupe; Idusogie, E.O., Abiagon, J.D. "A quantitative Analysis of Food Requirements, Supplies and Demands in Nigeria" Federal Ministry of Agriculture 1985.

Burk, W.T., "Fisheries Regulations Under Extended Jurisdiction and International Law" FAO Fisheries Technical Paper No. 223.

"The Fish Resources of the Eastern Central Atlantic Part I Gulf of Guinea". FAO Fisheries Technical Paper Nol 186.1 Boely, T. and Freon, P. "Coastal Pelagic Resources" pg. 32,33,51,57. Garcia, S. and Lhomme, F. "Pink Shrimp Resources" Pg. 125, 137.

"National Policy On Education." Federal Government Press Lagos, Nigeria 1981,

"International Convention On Standards Of Training, Certification and Watchkeeping for Seafarers, 1978". International Maritime Organization London.

"Torrmolinos International Convention For The Safety of Fishing Vessels, 1977" International Maritime Organization, London.

"Norwegian Ship Control Legislation Vol III" 1982 Ed. The Norwegian Maritime Directorate. pg. 18.32-18.34.