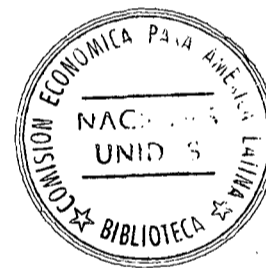


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 CARIBBEAN DEVELOPMENT AND CO-OPERATION COMMITTEE
 Sixth Session
 St. George's, Grenada
 4 to 10 November 1981



SECRETARIAT NOTE
 ON
 PROPOSAL FOR A MULTI-NATIONAL
 ENTERPRISE IN FISHING
 FOR THE
 CDCC COUNTRIES



UNITED NATIONS
 ECONOMIC COMMISSION FOR LATIN AMERICA Office for the Caribbean

PROPOSAL FOR A MULTI-NATIONAL
ENTERPRISE IN FISHING FOR THE
CDCC COUNTRIES

At the Fifth Session of the Caribbean Development and Co-operation Committee of ECLA, held in Kingston, Jamaica, from 4 to 10 June 1980, one country pointed out the necessity of undertaking a project of multi-national nature relating to the development of the Fishing Industry.

It was stated that the Member States of the Caribbean Development and Co-operation Committee, acting jointly and in a co-ordinated manner, could mobilize their technical resources and available material such as:

- technical and scientific personnel;
- measures for the training and technological research as regards naval construction, adequate for the seas of the region;
- technology for the development of fishing experts aimed at increasing the productivity of fishermen;
- technology for producing sea products;
- control of quality and trading of sea products, both for local consumption and for export.

Among the priorities of the sub-regional project the following may figure: the exploitation of natural resources, the distribution of products in their natural state, the training of local fishing personnel through the conversion of national and sub-regional centres, the undertaking of programmes for fishery and trade research. The duplication of activities would be avoided.

It was proposed that the Secretariat should convene a meeting of experts of interested countries for the purpose of preparing a request to FAO, UNDP and other interested international organizations and it was mentioned that these organizations could collaborate in order to hold this meeting.

Acting on the Committee's general acceptance and the response of the FAO Representative at the Session, the Secretariat circulated the text of the proposal to the Governments of all CDCC participating countries, with request for a summary of the existing country situation. The text of the proposal is attached at Annex 1.

It was pointed out in the request that the basic information is necessary to enable the Secretariat to formulate the project along the lines mandated, so that appropriate requests can be addressed to FAO and other international organizations that may be able to assist. The replies so far received are attached at Annex II.

The Secretariat has also been informed that the proposal was supported by the XVI Regional Conference of FAO for Latin America, Havana, 26 August-6 September 1980. Projects of this nature were also recognised as of great importance and significance at the Third Meeting of the Western Central Atlantic Fisheries Commission (WECAFC); Havana 18-24 November 1980.

More complete information from the CDCC region is necessary, to enable the Secretariat to proceed. In addition, financial provisions will need to be made by the CDCC for convening the meeting that was proposed.

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of CDCC, Kingston

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78. One delegation commented that the Consultant's report and FAO's activities indicated, among other things, that a multi-national enterprise in fishing for the CDCC countries be established; and that agreements be reached with FAO for joint projects in the Caribbean and that help be sought from FAO and UNDP on this subject. It was also suggested that CDCC countries should approach FAO directly in order to underline the Caribbean position and seek assistance.

79. The FAO delegate referred to the economic and nutritional importance of fishing in the CDCC sub-region and to the projects being developed by the FAO. The representative informed that the subjects of development of fishing, the oceanic regime and the exclusive economic zone will be specifically discussed at the next FAO Regional Conference. It was also mentioned that Cuba had offered to co-operate in the establishment of a training centre on fishing, and reference was made to the different tasks carried out by SELA's Sea Food and Fresh Water Products Action Committee with FAO's co-operation.

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III. Fishing Industry

In various forums and meetings, Cuba has emphasized the need for Projects relating to the development of the fishing industry to be given priority in the countries of the Caribbean which import seafood products, as these Projects could develop fishing industries in the economic zones or adjacent seas. In this respect, it is of particular importance to implement the development of a Project of a multi-national nature in which the experience of the countries of the area could be pooled.

The member countries of the CDCC, functioning jointly and in a co-ordinated manner, could mobilize their technical resources and available materials, such as:

Technical and scientific personnel;

Facilities for technological training and research in naval construction, suitable for the seas of the region;

- Technology in the development of fishing skills aimed at increasing the productivity of fishermen
- Technology in processing marine products:
- Quality control and marketing of marine products, both for local consumption and export.

This sub-regional Project could be re-arranged and organized in accordance with priorities, which would include the tapping of existing resources; the distribution of produce in its natural state, applying only such techniques as are necessary for conservation; the training of local fishing personnel through the conversion of national and sub-regional centres; carrying out fishing research programmes by renting boats fitted with the necessary scientific equipment, owned by the countries of the region; and marketing.

The Project would start out with the existing situation in each country, avoiding duplication of efforts. International Organizations should finance the acquisition of equipment and technical assistance in specialized areas unavailable in the participating countries. Each country may participate either in those aspects which it is most interested in developing, or in the total Project.

In order to carry out this Project, this Secretariat of the CDDC could convene a meeting of experts from the interested countries, in order to prepare on behalf of their Governments, the petition to the FAO, UNDP and other interested regional, and/or international organizations. These bodies could collaborate in making this meeting possible".

REPLIES RECEIVED

BARBADOS

" The following information about the existing situation may be useful

- (a) Annual catch is 3,500 to 4,000 tons.
- (b) Annual consumption is about 8,000 tons of which some 50% is imported.
- (c) The majority of the catch is produced between December and June, most of this comes from the pelagic fishery. Between July and November the reef is fished.
- (d) The main gear in the pelagic fishery is the gill-net and trolled hooks (usually two per vessel).
- (e) The main gear in the reef fishery is: the fish pot, the long line spear gun and (illegal) dynamite.
- (f) The fleet consists of about 470 launches most of which are under 35 feet in length; there are five boats over 40 feet which stay on for several days at a time. Large launches are powered by diesel engines up to 180 H.P. - small vessels have outboard engines. One new 45 foot vessel is a motor-sailor.
- (g) Most fish is sold "fresh".
- (h) Most boats do not carry ice.
- (i) Extensive re-development of the fisheries infrastructure is taking place. A new fish landing is being developed at Oistins. A new harbour is proposed for Bridgetown. A new fish landing is proposed for Speightstown.
- (j) Between March and May, 1980 a very extensive survey of the industry was completed by CIDA - based on this report, many developments are likely in the near future.
- (k) The present industry has been estimated to represent at least 0.6% G.N.P.

DOMINICAN REPUBLIC

Brief Report on Fishing in the
Dominican Republic

A. Fishing in the Dominican Republic is an activity of craftsmen. There are some 4,406 registered fishermen. The most used nets and tackle are: small drag-nets, bag-nets and long lines, all manually operated on board small crafts (yawls and small fishing-boats) with the few exceptions of persons or firms which have a small number of large and medium-size vessels.

The Dominican Republic fishermen enjoy a very low socio-economic status as well as a low level of schooling, with a large number of illiterates.

B. Commercial fishing in the Dominican Republic is based on fish traders (middlemen) who buy the catch cheaply on the beach and then sell to the consumer at a profit. In other words, the fishermen are not in charge of marketing their catch. Generally, fish traders (middlemen) provide fishermen with vessels (almost always yawls with out-board motors), as well as tackle, nets and other equipment (batteries etc.) but on condition that these fishermen sell their fish to these middlemen at a price fixed by them. The fishermen are therefore totally dependent on the middlemen.

Fish is made available to the consumer through a few fish shops which sell frozen fish. Almost all the owners of fish shops are middlemen.

C. Subsistence fishing is typical of the fisherman in the Dominican Republic, since he obtains low returns which barely suffices for his subsistence, an outstanding feature of the trade in which he develops.

D. Vessels: the chief one is the yawl, of some 1241 in number; next the small fishing-boat, some 462 in number; row-boats, some 165; canoes - 16, and 50 rafts. This data corresponds to 1980 for the entire country and was obtained from the Fishery Resources Department.

E. Nets, tackle and other articles. For 1980, there were in the country 8,850 bag-nets; 152 long-lines; 825 small drag-nets (both hanging and hauling); 566 casting nets; 5,705 simple hand lines (for one person)

F. National Production

1978	6,107,733	Kilos
1979	9,283,505	"
1980	12,701,688	"

G. Exports and Imports:

<u>Year</u>	* <u>Exports in DR \$</u>	<u>Imports in US \$</u>
1978	166,435.00	32,061,561.00
1979	913,638.00	19,733,901.00

* Exports of fish products are basically crab meat and lobster tails.

H. Organization of Associations:

Since Hurricane David ravaged the Dominican Republic, the Secretariat for Agriculture, through its Fish Resources Department, has been providing economic assistance as well as equipment and vessels to the core of fishery associations and this has been effective since national fish production has been increasing.

MONTSERRAT

FISHERIES OF MONTSERRAT - SUMMARY OF EXISTING SITUATION

1. BACKGROUND

1.1 The Island of Montserrat in the Leeward Islands is situated between Nevis and Guadeloupe. Montserrat consists of two volcanic masses linked by a high green saddle of fertile land in the centre. Once the market garden of the Caribbean, it is today busily shifting the emphasis of the economy towards careful residential land, resort development and light industry. The estimated population is 12,160.

1.2 The latest estimate of gross domestic product refers to \$24.4 million in 1978. Total value of imports exceeded the total value of exports by 23.2 million EC \$.

1.3 Domestic Production of Fish

Data of fish landings are available only up to 1976. After this no statistics have been collected. The average landings in a year is estimated at about 150,000 lbs of fish. To satisfy the requirements of fish, large quantities of fish are imported. During 1978, 200,000 lbs of fish costing EC \$ 336,000 was imported. During the previous years the quantities imported were much higher. The 1978 per capita import of fish products was 16.4 pounds. The main imported fish is dried/salted fish. Consumption of fish is quite high. The total requirement of fish is 750,000 lbs. It is clear that this requirement can be met by intensive fishing efforts which can also replace the imports. The unsatisfied demand of fish and fish product does not allow for any exportation of fish.

1.4 The Primary Industry

The fishing grounds accessible to the small crafts are limited. There are, however, within a range of 60 miles a number of productive offshore banks which would be accessible to larger vessels, but out of reach for the traditional inshore craft. The pelagic and oceanic resources which presently are not exploited to an appreciable extent include important food fishes such as tunas, flying fish, wahoo, king fish, dolphin, cavalli and jacks. These are resources which die and are lost if these are not exploited. The fishable banks and their deep slopes occupy an area of 11,000 km² include the Antigua-Barbuda, the Anguilla, the Saba, the Sombrea and the St. Kitts-Redonda-Montserrat banks. Survey data from these banks give an average catch of 2700 kg/km² and an estimated standing stock of 29,700 tonnes. It is known that the Japanese and other foreign fishing vessels do fish in these waters and carry away plenty of fish that could be taken by the fishermen of the Leeward Islands.

The fishing industry in Montserrat has not developed up to a stage where it is possible to utilize its offshore resources. With the possible exception of lobster fishing, the methods, the gears and the grounds fished, are, today the same as in the previous generations. The only major renovation, the introduction of outboard engines has probably meant an increase in production by extending the number of sea hours spent by actual fishing; but the boosting effect on production is believed to have levelled off and further substantial increase cannot be expected from this traditional fishery.

1.5 For a viable offshore fishing industry to develop, bigger boats and engines, new gear and advanced methods all demanding heavier financing have to be introduced and fishermen have to develop a know-how in the proper use and handling of these equipment. Improved shore facilities for serving the bigger boats as well/the introduction of marketing and holding facilities are required. The financial and technological implications of such a process are apparent.

1.6 Boats and Fishermen

Montserrat has 80 fishing boats. The typical boat used is the carvel built sailing dinghy having an overall length of some 20 feet.

Of the boats operating almost 90% are provided with outboard motors. Some carry out combined pot and line fishing, some are purely involved in hand lining and some are engaged in seine fishing. Beach seining and skin diving are also practiced.

1.7 Seasons

The general pattern in the seine fishery is that catches drop off during late spring to reach a low in summer. Occasional abundant schools of pelagic fish may appear and cause heavy catches. The pot fishery does not fluctuate much although the summer months tend to be less productive. Good months for the seine fishing are October to March.

1.8 The Seine Fishery is concentrated on the Leeward side of the Island where species like gartfish and ballahoo are caught by somewhat bigger boats. The boat seine made up of the bunt (4-5 fathoms long) the top tunnel (25-40 fathoms long) and the bottom tunnel (25-30 fathoms long) is operated by 4-6 crew members in the bigger boats. In 1966, a catch rate assessment varied from 50-500 lbs in main fishing season lasting from October to January. Most nets used today are made out of nylon twine and with proper handling should last for more than 3 years. It is known that 31 seines are operated in the Island by 21 owners.

1.9 According to the existing rules, the stretched mesh size in these nets may not be less than 1 1/2 inches. The standard operation of the net boat is about 2 hours time out to the grounds usually 3 miles offshore, spending approximately 6 hours fishing and returning at midday or late in the afternoon. Usually the owner of the boat also owns the net but does not necessarily participate in the fishing.

1.10 The Pot Fishery

Pot fishing is carried out with mostly the Z type pot 6ft x 3ft x 1.5ft made out of 1-1 1/2 inch mesh size of wire framed by wooden sticks. Synthetic ropes and plastic buoys are extensively used. Pots are set in scattered areas with depth usually around 25-30 fathoms. Each boat operates 5-10 pots at a time. Pots are hauled usually twice a week, the approximate catch per pot per haul being estimated at 10-15 lbs. The limited capacity of the craft makes it difficult to carry on board more than two or three pots when it becomes necessary to retrieve because of storms or change of fishing grounds. The fish pot properly constructed and set is not a cheap fishing gear. Total cost per pot with synthetic rope and float is today estimated at a minimum of \$100.

Fishermen generally say that they would want to operate a large number of pots, thereby hoping to increase their catches and net earnings. However the economics of increasing the pot fishery within the operational range of the small inshore crafts are highly doubtful. Indications are that yields of demersal species from the traditionally exploited limited inshore grounds have by now reached the stage of diminishing returns. Simultaneously the cost of materials is steadily increasing. The only solution is the exploitation of the inshore

and offshore pelagic resources with modern fishing gear.

1.11 Hand Lining is done in the smaller boats with a crew of 3 to 5 men. Fishing grounds are near the edge of the Leeward shelf of the Islands.

1.12 Landing and Berthing Facilities

There are at present 80 boats scattered over some 10 beaches along the south and west coasts of the Island. The more active beaches are Kinsale, Plymouth, Carrs Bay and Isles Bay. Years back, at Isles Bay and Carrs Bay, the Fisheries division erected small wooden sheds for sheltering and storing of gear equipment. These shelters had proved to be of great use for the drying of synthetic fibre nets that otherwise would have to be exposed to sun resulting in deterioration of fibre and consequently shortening the lifetime. The cubicles given to individual fishermen also meant the effects and equipment could be kept safe right on the beach instead of being carried in considerable distance to the villages up on the mountainous hillside. Presently Plymouth and Carrs Bay only have sheds. Isles Bay centre has a damaged shed.

1.13 Marketing of Fish Catches

The present level of fish production and its location in relation to the distribution of population in the Island does not cause much problem now in the marketing and distribution of fish. Fish is retailed by fishermen themselves either on the beach or up in the village on the hillside. There is no need for a middleman. But with the bulk landings expected with new developments of fish from an offshore or distant water fishery and with the improvement of the artisanal fishery, fish marketing problems will arise and a marketing society can easily handle this problem.

Art. equal.

1.14 In Plymouth, there is sufficient cold storage capacity at present but augmentation will be necessary as the industry develops. In the other major fish landing centres no storage facility is available. Small walk-in coolers will be helpful to store surplus fish and fish landed at late hours.

1.15 In a recent FAO report based on the work of Mr. M. Gaudicelle, a fishing gear technologist, it has been suggested that as a first step to develop the fisheries of Montserrat, efforts should be concentrated on a more complete and productive exploitation of the presently fished and unfished stocks around the Island. It is considered that opportunities are still offered by the demersal and big pelagic species along the drop off of the continental shelf as well as on the windward shelf itself which at present is not at all exploited. For achieving this, the following suggestions have been made:

1.16 Boats

The present wooden dory boats in Montserrat are well adapted to the local harbour and sea conditions, which uses local material

and local manpower. Two improvements for increasing sea-worthiness and thus facilitating the exploitation of the windward shelf, as well as the unprotected waters around the shelf are (1) use of jib and main sails. Sails not only save fuel but also makes the boat more sea-worthy but above all ensure the return to shore in case of engine breakdown. (2) Encouraging the building of dories of the biggest size in use and in increasing this size to 7.0-7.5 meters. If the size of the dories is further increased to 8-9 meters and the construction is made heavier and bulkier permitting the installation of relatively heavy 15-25 HP diesel engines on board it would increase the reliability of the craft and decrease the fuel cost.

1.17 Equipment

The exploitation of the demersal species along the drop off of the continental shelf in the 70-220m region (40-120 fathoms approximately) offers good development opportunity. All around the Caribbean Sea this region is occupied by highly valuable species such as snappers, groupers and big jacks. Locally built hand reels can be installed on any size of boat for operating lines from the boats at these depths. It can also be made in trolling operations by installing a snap between the pennant and the trolling line.

1.18 A simple hand winch of the same conception as the hand reels could also be used for potting operations in the deep waters along the drop off.

1.19 Gear and Methods

Demersal fish stocks seem to be relatively little fished deeper than 30 fathoms and more particularly along the drop off. This drop off has a total length of 34 miles all around the Island. This is not negligible. Lines and hooks worked with hand reels will bring in good results. Use of vertical long lines has also vast potentiality. A dory could work 2 or 3 sets of fish concentrations, hauling them every 30 to 90 minutes. Small tunas observed offer good opportunity for trolling as also for dolphins, marlins, and wahoo which are relatively common in the region. Excellent results can be expected by working along the drop off at day break and at dusk. Drift gill netting is another possible method for the exploitation of pelagic species particularly during operation at nights. Shark fishing also has vast potentialities.

2. CONCLUSION

2.1 From the background information furnished in the previous paragraphs it can be seen that Montserrat has the potential for considerable expansion of its fishery fleet in order to exploit its fishery resources in the offshore and deep sea waters. These vessels have necessarily to be much larger in size than the existing inshore crafts. Such a fleet may consist of 12 vessels in the next five years.

2.2 A start is to be made immediately with the operation of a medium sized vessel fully equipped for fishing specially in the drop off area of the continental shelf (40 to 120 fathoms).

ST. KITTS-NEVIS

FISHERIES OF ST. KITTS-NEVIS - A SUMMARY
OF THE EXISTING SITUATION

1. Background

- 1.1 The Island of St. Christopher in the Leeward Islands was discovered and so named by Christopher Columbus in 1493. With the adjacent Island of Nevis it constitutes the "State in Association with the United Kingdom" of St. Kitts-Nevis. The estimated population of St. Kitts in 1980 was 35104 and Nevis, 9300, the fisherman population being 900 both full time and part-time.
- 1.2 St. Kitts relies heavily on the production of a single crop; sugar. Sugar production in 1979 and 1980 was 38,854 and 33927 long tons respectively. It is estimated that close to 50% of the male labour force is employed in the agricultural sector (including fishing). Fishermen are, by tradition, part of the agricultural force and their employment and performance in the fishing industry is intimately affected by the conditions and changes in condition within the agricultural sector.
- 1.3 The latest estimate of GDP refers to 1978 when the total GDP at factor costs amounted to EC\$95.5 million resulting in a per capita rate of roughly EC\$2146. In 1979 total values of imports exceeded the total value of exports by EC\$41.2 million.
- 1.4 Domestic production of fish. There is no system of recording domestic landings of fish and only rough estimates are available. The average landings in a year is estimated at about 1670 metric tonnes. To satisfy the requirements of fish, large quantities of fish are imported. During 1978; 468,124 pounds of fish was imported for a total value of EC\$758,794. During the previous years the quantities imported were much higher. The 1976 per capita import of fish products was 13.96 pounds. The main imported fish commodity is fried/salted fish. Consumption of fish is quite high. The total requirement of fish is about 5000 tonnes. It is clear that this requirement of fish can be met by intensive fishing efforts which can also replace the imports. The unsatisfied demand of fish and fish products does not allow for any exportation of fish; lobsters in live condition and conch meat in chilled condition being the exception.

2. The Primary Industry

- 2.1. The fishing grounds accessible to the small craft, are limited. There are, however, within a range of 60 miles a number of productive offshore banks which would be accessible to larger vessels, but out of reach for the traditional inshore craft. The pelagic and oceanic resources which presently are not exploited to an appreciable extent include important food fish such as the tunas, flying fish, wahoo, king fish, dolphin, cavalli and jacks. These are resources which die and are lost if these are not exploited. The fishable banks and their deep slopes occupy an area of 11,000 km² include the Antigua/Barbuda, the Anguilla, the Saba, the Bombay and the St. Kitts-Rodonda-Montserrat banks. An average haul from these banks give an average catch of 2,700 kg/km² and an estimated standing stock of about 30,000 tonnes. It is known that the Japanese and other foreign national fishing vessels do fish in these waters and carry away plenty of fish that could be taken by the fishermen of St. Kitts-Nevis.
- 2.2. The Fishing industry in St. Kitts and Nevis has not developed up to a stage where it is possible to utilize their offshore resources. With the possible exception of lobster fishing, the methods, the gear and the grounds fished are today the same as in numerous previous generations. The only major innovation, the introduction of outboard engines, has probably meant an increase in production by extending the number of sea hours spent by actual fishing but the boosting effect on production is believed to have levelled off and further substantial increases cannot be expected from this traditional fishery.
- 2.3. For a viable offshore fishing industry to develop, bigger boats and engines, new gear and advanced methods all demanding heavier financing have to be introduced and fishermen have to develop a know-how in the proper use and handling of this equipment. Improved shore facilities servicing the bigger boats as well as the introduction of marketing and holding facilities are required. The financial and other social implications of such a process are apparent.
- 2.4. Boats and Equipment - St. Kitts has 350 fishing boats while Nevis has 300 boats. The type of boat used is the carvel built sailing dinghy having an overall length of some 20 feet. A few inshore boats are overpowered and are powered by outboard engines of various brands, ranging in power from up to 40 H.P. There are 4 boats with inboard diesel engines.
- 2.5. Fishing Operations - Of the 650 odd boats believed to be operating in the Leeward Islands, about 90% are powered with outboard motors. They carry out combined pot and line fishing. Some are purely involved in land fishing and some are engaged in fishing

with seines. Beach seining and skin diving are also practised. There is no clear pattern of seasonal variations in total catches to the relative abundance of fish. In spring time when an increased population of the agricultural labour force is employed on a full time basis in the harvesting of sugar cane, the number of seagoing boats decline.

- 2.5.1. The Seine fishery is concentrated on the Leeward side of the Islands where species like garfish and ballanoo are caught by somewhat bigger boats, averaging 4 to 5 men per craft. The rectangular boat-seines are all of nylon and range between 80 to 200 fathoms in length and 5 to 75 fathoms deep. According to the existing rules, the stretched mesh size in these nets may not be less than 1 1/2 inches. The standard operation of the net boat is about 2 hours time out to the grounds, usually 3 miles offshore, spending approximately 6 hours fishing and returning at midday or late in the afternoon. Usually the owner of the boat also owns the boat but does not necessarily participate in the fishing.
- 2.5.2. Pot-Fishery is the traditional method of capture and is carried out all around the Island. The crew consists of 2 to 3 men per boat, each individually fishing their own pots. The average number of pots set at one time per man ranges around 5 to 6. On the Leeward side of the Island, pots are set in shallow waters but usually pots set in water of 5 to 30 fathoms deep are hauled every day or two. The main types of fish caught are grunts, crevalles, snappers, lobsters and other demersal fish.
- 2.5.3. Fand Lining is done by the inshore craft near the edge of the shelf on the Leeward side of the Island. Depths fished are usually 80 to 100 fathoms. The larger boats with inboard engines troll to distant offshore banks mainly the Saba Bank, staying out overnight using ice boxes on deck and catching demersal species of much bigger individual sizes, grouper, hind, snapper, grunt, breams, etc.
- 2.5.4. Lobster fishing by tradition is done extensively in Nevis. In St. Kitts the lobster fishing with pots is done in certain areas. Catching of female lobsters with eggs or lobsters of less than one pound in weight or measuring less than 9 inches in total body length is prohibited by law.
- 2.6. Landing areas and facilities. Some 10 to 15 landing areas are at present in use by St. Kitts-Nevis fishermen. Beach facilities are non-existent. There are nowhere storage facilities available to fishermen to accommodate gear or engines. Nets are dried in the sun on the beaches which, in the case of nylon, is disastrous to the fabric. Fuel installations in Basseterre and Charlestown are readily available. Road access is generally good to all major landing areas.

2.7. Marketing and distribution. The marketing of fish is in most cases, a simple straight forward cash transaction between the fisherman or members of his family and local consumers. Commission sales do not exist. Fishermen, with the exception of some in Basseterre, own their boats and equipment and are therefore not controlled financially by middlemen, a feature significant in the windward Islands. In Basseterre, the retail section for fish in the public market, located next to the beach is hardly used at all. The small catches landed and the unsatisfied demand makes the use of these premises unnecessary. Block ice is available through the Government ice plant which produces 5 tons of block ice in 24 hours. There is a storage per 10 tons of block ice which at present is out of commission. Chill rooms and cold storage are also found within the premises of the Central Marketing Corporation located about a mile from the public market.

Assistance for improving the fishing industry by providing shore facilities, mechanical repair facilities, berthing and servicing facilities, storage sheds for gear, engines and personal equipment and processing facilities are all very necessary.

In the programme of the State, a programme for fishery development during 1980/83 at a total cost of US\$2,660,000 has been envisaged.