

FISHERY COUNTRY PROFILE	Food and Agriculture Organization of the United Nations	FID/CP/STK
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SAINT KITTS AND NEVIS

3. Fishery Sector Structure

Fisheries management in St. Kitts and Nevis is done jointly by the Fisheries Departments in each Island. The marine capture fisheries are mainly artisanal. Capture fisheries are all marine – there are no inland Fisheries.

There are four major fisheries being monitored regularly, namely: Demersal or reef/bank; coastal pelagic; ocean pelagic; and conch.

Demersal fishery

This is the largest fishery in terms of vessels, persons and gear used. Over 80% of the registered vessels are involved in the reef fishery, which includes over 75% of the registered fishers. The fishery employs various gear, including fish traps, handlines and spear guns. Handline is often used in combination with fish traps. The length of fishing trips varies from 6 to 36 hours, with crews of 1 to 4 men. Handlines are normally set with a number of hooks (4–12) of various sizes, and baited with a variety of baits, including fry, ballyhoo sprat and squid. The fishing depth ranges from 5 to 100 fathoms.

Fish traps are made from 1.5 inch chicken wire, although some fishers have used 1 inch square mesh coated wire. Again, these traps are baited with a variety of bait including, conch, sprat, fry and cattle hide. Traps are normally set at depths of 5 to 100 fathoms and are allowed to stay in the water for 1 to 5 days before hauling. Due to the multi-species nature of the fishery there is no real single-species target in the case of demersals, but for lobsters the traps are baited with cattle hide. The crew is normally 2, including the captain. Each vessel has 25–40 traps. Usually, all traps are hauled on each trip. Lobsters are taken in the same traps as other reef species.

Coastal pelagic

This fishery employs just over 10% of the registered fishers and less than 3% of the registered vessels. However, this fishery accounts for over 40% of the total landings on an annual basis.

The fishery operates within five nautical miles from shore, although some vessels travel 15–20 n.mi. from their home ports. The major gear used is the beach seine, varies from 100 to 300 fathoms in length and 3 to 6 fathoms in depth. Seines are constructed of nylon twine and have a mesh size of 1 inch stretched. The trip usually begins before dawn and ends just before midday. The vessels are between 23 and 30 feet in length and are powered by one or two outboard engines (40 to 65 hp). The crew is normally 5 persons, including the captain, who is normally the owner. However, the crew can be 4 or as many as 8 at times for normal fishing trips. In many cases, up to 50 people can be involved in the process of hauling the net ashore. Additionally, gillnets are sometimes used in close proximity to beaches, rocks and reefs. Gillnets are constructed of monofilament with two-and-a-half to four inch stretch mesh. These nets range in length from 100 to 300 feet and are 10 to 15 foot deep.

The species targeted are the small pelagics, including gars, bolleyhoo, jacks and small tunas. However, a number of other “reef species” are also taken as the operations normally take place in shallow waters, near reefs and on grass beds and nursery areas.

Ocean pelagic

Unlike the coastal pelagic fishery, this fishery operates up to 35 n.mi. from shore and is highly seasonal in its operation. The crew is normally 2, including the captain, who is normally the owner of the vessel. The same vessels are used as for the reef fishery (16–40 foot LOA, powered by outboards ranging from 40 to 250 hp). Most of the vessels have twin engines. The major gear used is trolling lines baited with either small pelagics or artificial lures. Fish Aggregating Devices are used in this fishery. The trip usually begins just after dawn and could extend late into the afternoon, depending on distance travelled, weather condition and catch.

The species targeted include dolphin fish, tunas and mackerel.

Conch

The conch fishery has been the most consistent with respect to landings. This fishery involves vessels of 16 to 20 foot and powered by 40 to 65 hp engines. The conch is fished by divers using scuba gear in the deep areas (between 60 and 120 foot) while free divers fish the shallower waters. The crew normally consists of two divers and a “bagman”, whose major responsibility is to control the vessel while divers are in the water and retrieve the bags loaded with conch. Usually, only one diver is in the water at a time.

4. Catch Profile

Demersal species caught by trap and line include Doctor fish (Acanthuridae), Trigger fish (Balistidae), Grunts (*Pomadasyida* spp.), Squirrel fish (Holocentridae), Snappers (Lutjanidae), Goat fish (Mullidae), Parrot fish (Scaridae), Groupers (Serranidae) and Lobsters (*Panularius argus*).

Coastal pelagic species caught by seine include Gars (Belonidae), Bollyhoo (Exocoetidae) and Jacks (*Selar crumenophthalmus*).

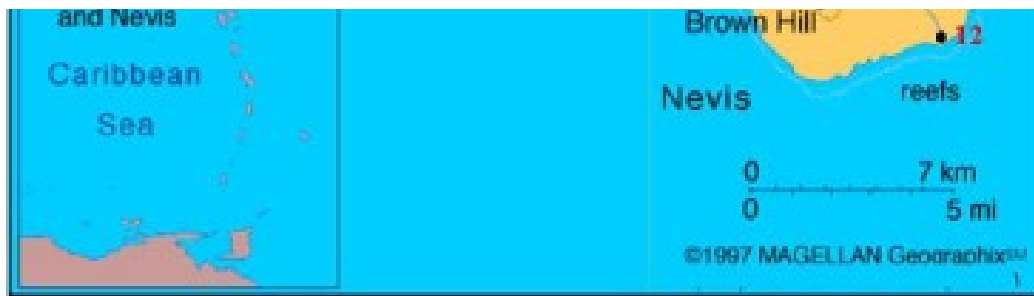
Ocean pelagic species caught by trolling include Dolphin (*Coryphaena hippurus*) tuna (*Thunnus* spp.) and Mackerel (Scombridae).

Species caught by scuba diving is principally Queen Conch (*Strombus gigas*).

APPENDIX one

Map showing Fish landing sites





Legend

- 1... Basseterre East
- 2... Basseterre West
- 3... Old Road
- 4... Sandy point

- 5... Dieppe Bay
- 6... Charlestown
- 7... Jessups
- 8... Cotton Ground
- 9... Jones Bay
- 10... New Castle

- 11... Long Haul
- 12... Indian Castle

5. Landing Sites on St. Kitts

There are five major landing sites in St. Kitts: East Basseterre, West Basseterre, Old Road, Sandy Point (Pump Bay) and Dieppe Bay.

East Basseterre

This is the main (90%) conch fishery centre for St. Kitts. Some 2% is landed at Old Road. Nevis fishers land 8%. There is no significant conch fishing from any of the other landing sites. Some of the fishers from this area use traps, with an average of 15 traps per boat. There is no commercial trolling from this site, but a number of sport fishing vessels operate from here.

West Basseterre

This landing site is the most active of all the landing sites within St. Kitts, not because of the number of vessels registered there but mainly because many vessels use this site as it is close to the Basseterre public market. Some fishing boats from Nevis also land and market their catch here.

Old Road

This area is becoming a very active fish landing area. Seine net fishing vessel catching coastal pelagics operate from this site, landing almost 40% of the small pelagics landed on St. Kitts. It also lands close to 50% of the ocean pelagics caught mainly by trolling.

Sandy Point

This area consists of a relatively small number of registered vessels, mainly using traps and hand lines.

Dieppe Bay

Dieppe Bay is the most northerly of all the landing sites. It is unique in that it is the only landing site that is protected by a reef. This single site handles largest annual landings of lobsters on St. Kitts.

6. Fish Landing Sites on Nevis

Charlestown

This is the major landing site in Nevis, with landings comprising about 80% demersals, 10% ocean pelagics and 10% coastal pelagics. This site has the greatest amount of boats (40) in Nevis.

Jessups

This is the main site for landings of conch, as 90% of the conch landed in Nevis is landed here. Some trap fishermen who target demersals also operate from this site. Many of the fishers who are registered from this area market their catch on St. Kitts.

Cotton Ground

Cotton Ground is used mainly by trap fishers, though there has been one conch boat operating from here.

Jones Bay

The bulk (95%) of the catch landed here is ocean pelagics. This is also the home port for majority of sport fishing vessels.

Newcastle

Newcastle as a landing site sees more varied catches than elsewhere in Nevis. Vessels based here use *inter alia* handlines for demersals and net fishing for coastal pelagics.

Long Haul and Indian Castle

These sites are used for landings from trap fishing and handlining.

7. Main Resources

Demersal species caught by trap and line include Doctor fish (Acanthuridae), Trigger fish (Balistidae), Grunts (*Pomadasyida* spp.), Squirrel fish (Holocentridae), Snappers (Lutjanidae), Goat fish (Mullidae), Parrot fish (Scaridae), Groupers (Serranidae) and Lobsters (*Panularius argus*).

Coastal pelagic species caught by seine include Gars (Belonidae), Bollyhoo (Exocoetidae) and Jacks (*Selar crumenophthalmus*).

Ocean pelagic species caught by trolling include Dolphin (*Coryphaena hippurus*) tuna (*Thunnus* spp.) and Mackerel (Scombridae).

Species caught by scuba diving is principally Queen Conch (*Strombus gigas*).

8. Management Applied to Main Fisheries

Queen Conch (*Strombus gigas*)

Management objectives are to rebuild the conch stocks and identify target and limit reference points for the fishery in order to stabilize the net incomes of the operators and to ensure sustainable harvests. This involves a process of promoting co-management.

Current regulations impose size restrictions; minimum shell length and meat weight; harvesting only of flared lip conchs permitted; and provision for a close season.

This fishery is carried out by scuba and free divers, usually over sea grass beds and coral rubble. The majority of the fishing is undertaken from small wooden open fishing boats with an average length of 5 m, with motors ranging from 25 to 40 hp. Each boat usually fishes with a crew of three.

Most of the catch is exported or sold locally to restaurants and hotels.

Spiny Lobster (*Panularis argus*)

The management objectives are to rebuild the lobster stocks and identify target and limit reference points for the fishery in order to stabilize the net incomes of the operators in the fishery; to ensure that harvesting does not exceed its MSY; and to promote co-management.

Current regulations impose minimum-size limits, restrict fishing gear; and prohibit the

taking of berried females or moulting individuals.

The lobster fishery is part of the reef fishery, but has been separated by management due to its importance to the economy and very long life cycle. Lobsters are taken in the same traps that catch reef fish, and to a lesser by divers. Lobsters are usually caught in small numbers and stored in holding cages until sold. Some of the catch is exported, but sales to local restaurants and hotels account for the majority of consumption.

Demersal species

Management objectives are to rebuild the reef, bank and deep slope fish stocks and to identify target and limit reference points for the fishery, in order to stabilize the net incomes of the operators; maintain biological diversity; and ensure that the MSY is not exceeded in any of the species of this multi-species fishery. This involves the promotion of co-management.

Current regulations set size restrictions on meshed gears (traps must be made from wire not less than 2 inch mesh size).

This fishery employs the largest number of fishers and vessels, with over 75% of registered fishers and 80% of the vessels. It has accounted for approximately 41% of estimated annual landings. The species are taken with traps, handlines, gillnets and spear guns, and fishing occurs at various depths throughout the extensive shelf area. The quality of the catch ranges from miscellaneous reef fish (more commonly taken in shallow areas), to snappers and groupers (more commonly taken in deeper areas). At most locations, demersals are fished from small open boats, but, in Nevis, one larger launch-type boat specializes in deep-water line fishing for snapper and groupers. In the past, traps were only baited to catch lobster, but traps are now being baited to catch a variety of fish.

In Nevis, Antillean Z-traps of various sizes are most common, compared with are rectangular and arrowhead traps in St. Kitts. Fishermen haul their traps 2–3 times a week, and may haul 25–45 traps each trip. Often traps (pots) are set without buoys to reduce theft.

Ocean pelagics

Management objectives are to promote the sustainable development of the commercial longline and sport fisheries for large pelagic species; to develop capacity for optimizing the catches of large pelagics inhabiting or migrating through the EEZ; to establish management linkages with international regulatory bodies, such as ICCAT, in order to access vital information to properly manage these fishes.

Currently there are no regulations controlling the harvest of large pelagics for commercial fishing within national waters, but attention is normally paid to the management recommendations from ICCAT.

Catches of pelagics are seasonal. Larger pelagics are harvested by commercial and sport fishermen, mainly by trolling, during the months of January to June. The commercial fishery is conducted with trolling hooks and lines. Most vessels have a crew of 2 or 3, including the captain. Trolling lines are normally 80 – 100 lb test, with a single hook. Artificial lures are sometimes used, especially for tuna and mackerel. Fishers prefer to use ballyhoo or flying fish to catch dolphin fish. Some fishers have been using Fish Aggregation Devices (FADs) in conjunction with longlines to catch Yellowfin tunas.

This fishery contributes about 10% of the total estimated annual landings.

An unknown quantity of large pelagics is caught illegally by foreign vessels in the waters of St. Kitts and Nevis.

Coastal pelagics

This fishery takes mainly Jacks (Carangidae), Gars (Belonidae) and Ballyhoo (*Hemiramphus* spp.).

The management objectives are to identify target and limit reference points for the fishery in order to maintain and improve the net incomes of the fishers and operators in the fishery, and to preserve the traditional nature of community involvement in this fishery while ensuring that all capture is done in a sustainable manner.

Current regulations govern only net mesh size.

Fish are mostly caught by seines used from the beach or offshore in a purse fashion. Seining is discouraged in Nevis because of the damage to the bottom and coral reefs. Gillnets (fixed or drifting) are used primarily for catching jacks. Cast nets are also used along the beach. Fish are sold fresh at the landing site by fishermen or by vendors. Market demand may limit catches at certain times. Coastal pelagics are also used as bait in longline, trolling and trap fisheries.

9. Inland Subsector

There is no inland fishery.

10. Recreational Subsector

Recreational fishing exists but data on this are not captured.

11. Aquaculture Subsector

Currently there is only one aquaculture project. This project is privately owned and the owner is experimenting with the growing of tilapia in ponds near the ocean, using seawater.

12. Post-Harvest Use

Fish utilization

Except for some exports of queen conch, all harvested fishery products are marketed and consumed locally.

Fish markets

Fish is usually sold at landing sites, direct from boats, except for the main fisheries centres in Basseterre and in Charlestown.

Trade

Conch is the only fishery product that has significant exports. All other species caught are consumed locally.

Food security

Fish and fishery products are of significant importance in local food security.

Employment

Total registered fishers are approximately 600. This includes fishers, vendors and anyone else employed in a related occupation.

Rural development

Fisheries in rural areas are important in the socio-economic development of local communities in both St. Kitts and Nevis.

13. Fishery Sector Development

Constraints include inadequate monitoring, surveillance and law enforcement; poor coastal surveillance; lack of the ability to assess stocks; and overall, limited financial resources.

14. Development Prospects and Strategies

The aim of the Fisheries Department is to ensure that fishers are provided with the necessary support, such as training, technical advice and so forth, so that the country can be provided with adequate supplies of good quality fish and fishery products. While doing so, the department will endeavour to ensure that all fishing activity is done in a manner that will promote sustainability of the species.

15. Research

The Department of Fisheries depends on regional and international organizations for scientific research support, such as for stock assessments.

16. Education

Education and public awareness is done mainly through the various local print and electronic media (newspapers, radio, etc.).

17. Foreign Aid

Foreign Aid has been received from various countries for many different types of fisheries development, in the form of training, capacity building and infrastructure development.

18. General Legal Frameworks

Primary legislation

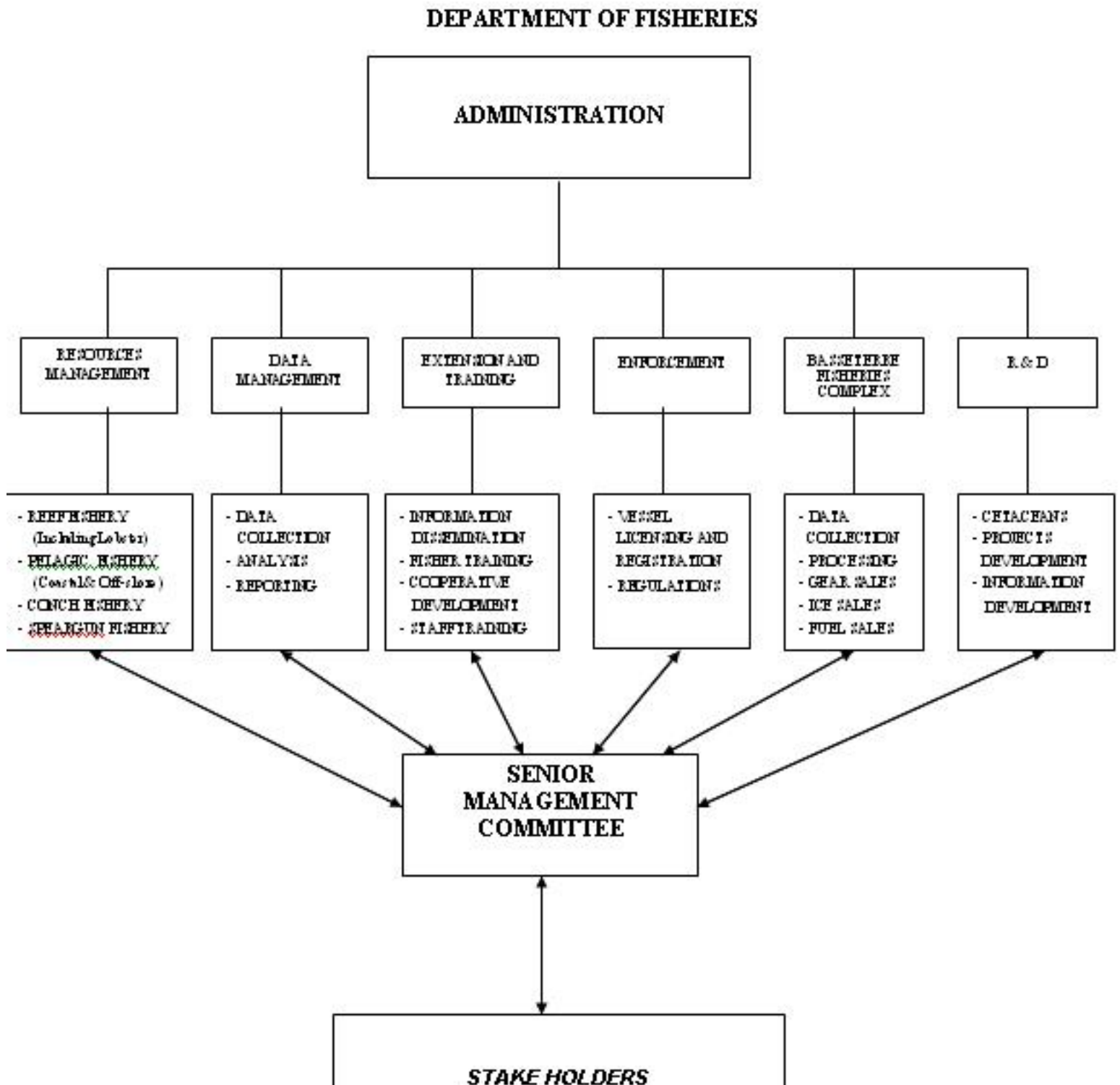
The Fisheries Act (1984) was amended in 1992 to incorporate provisions of the OECS harmonized legislation. Fisheries regulations were gazetted in 1995. The Act covers the establishment of a fisheries advisory committee, fisheries access agreements, local and foreign fishing licensing, fish processing establishments, fisheries research, fisheries enforcement and the registration of fishing vessels. Also, the Act specifies conservation measures, such as prohibiting the use of any explosive, poison or other noxious substance for the purpose of killing, stunning, disabling, or catching fish; closed seasons; gear restrictions; and creation of marine reserves. The Minister responsible for fisheries is given the authority to create new regulations for the management of fisheries as and when necessary.

Other fisheries-related legislation

- National Conservation and Environmental Protection Act (1987), addressing coastal zone management.

- Maritime Areas Act (1984), for resources management within EEZ waters.
- Zoning Ordinance (1991), establishing marine parks in Nevis.

19. Fishery Sector Institutions



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