

## FISHCODE/MANAGEMENT

### REPORT OF A NATIONAL WORKSHOP ON SHRIMP AND GROUND FISH FISHERIES OF THE BRAZIL-GUIANAS SHELF



Couva, Trinidad  
2 - 3 May 2000



**FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS**

**Rome, September 2000**

## **FISHCODE/MANAGEMENT**

FAO/NORWAY PROGRAMME OF ASSISTANCE TO DEVELOPING COUNTRIES  
FOR THE IMPLEMENTATION OF THE CODE OF CONDUCT FOR RESPONSIBLE  
FISHERIES

SUB-PROGRAMME F: ASSISTANCE TO DEVELOPING COUNTRIES FOR  
IMPROVING THE PROVISION OF SCIENTIFIC ADVICE FOR FISHERIES MANAGEMENT

### **REPORT OF NATIONAL WORKSHOP ON SHRIMP AND GROUND FISH FISHERIES OF THE BRAZIL-GUIANAS SHELF**

**Couva, Trinidad**

**2 - 3 May, 2000**

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The designations “developed” and “developing” economies are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country, country territory or area in the development process.

The views expressed herein are those of the authors and do not necessarily represent those of the Food and Agriculture Organization of the United Nations nor of their affiliated organization(s).

# **Report of National Workshop on Shrimp and Groundfish Fisheries of the Brazil-Guianas Shelf Couva, Trinidad, 2-3 May, 2000<sup>1</sup>**

## **Introduction**

The Workshop was organized within the framework of the FAO/WECAFC *ad hoc* Working Group on Shrimp and Groundfish resources of the Brazil-Guianas Shelf that was established in 1984 at the recommendation of the WECAF Commission, given the nature and characteristics of the fisheries resources in this region. The Group has been meeting yearly since 1996 to undertake stock assessments of the main commercial species of shrimp and groundfish. One of the main objectives was to use the results of these assessments to investigate alternative options for managing these fisheries and to provide scientific advice for management. These stock assessment workshops were facilitated by FAO, through its Regular Programme and inter-regional Projects GCP/INT/575/DEN – “Training in Tropical Fish Stock Assessment” and GCP/INT/648/NOR- “Assistance to Developing Countries for the Implementation of the Code of Conduct for Responsible Fisheries” and CFRAMP (CARICOM Fisheries Resources Assessment and Management Programme).

The fisheries directors of the countries of the Brazil-Guianas shelf (Brazil, French Guiana, Guyana, Suriname, Trinidad and Tobago and Venezuela) met in June 1999 in Belem, Brazil and discussed the work of the *ad hoc* Working Group with emphasis on their national jurisdictions. The fisheries directors in accepting the preliminary results of the stock assessments, recommended the dissemination of these results to the stakeholders in each participating country through national workshops.

The main objectives of the workshop were to:

- disseminate the results of the stock assessment work of the Fisheries Division undertaken through the FAO/WECAFC *ad hoc* Working Group on shrimp and groundfish resources on the Brazil-Guianas Shelf and discuss its implications for management;
- stimulate and encourage the participation of stakeholders, especially in the industry, in management of the shrimp and groundfish fisheries of the Brazil-Guianas region, through the work of the Fisheries Division and the *ad hoc* FAO/WECAFC Brazil-Guianas Working Group (Article 6.16 of the Code of Conduct for Responsible Fisheries pertaining to the involvement of resource users in the conservation and management of fishery resources, refers); and
- initiate discussions on partnership arrangements between the Fisheries Division and the industry stakeholders.

---

<sup>1</sup> Prepared by Bisessar Chakalall, Regional Fisheries Officer and Juan Carlos Seijo, FAO Consultant.

## Opening Session

The Workshop was held at the Rudranuath Capildeo Learning Resource Centre in Couva, Trinidad and Tobago, 2-3 May 2000.

Sixty-eight participants from the fisheries sector and government agencies attended the workshop. Participants included fishers, owners of fishing vessels, and representatives of fishermen co-operatives, the artisanal, semi-industrial and industrial trawl fishery, the monofilament and multifilament gill net fishery, palange operators and trawler owners associations. The list of participants is attached as Appendix 1.

Mr. Carlisle Jordan, Director of Fisheries, Ministry of Agriculture, Land and Marine Resources presided over the opening session. In welcoming the participants, he emphasised that the Government of Trinidad and Tobago was committed to sustainable fisheries through management and conservation.

Mr. Bruno Maharaj, President of the Trawler Owners' Association, representing the Fishing Industry of Trinidad y Tobago stated that fishing is a vital and relevant industry to the economy of Trinidad and Tobago, and a major source food, income, employment and foreign exchange. Mr. Maharaj also described the evolution of the shrimp fisheries sector in which most current industrial trawler owners started as artisanal inshore shrimp harvesters. He also indicated that responsible fisheries management called for compliance with the use of Turtle Excluding Devices (TED's). This will allow for conservation of marine biodiversity and protection of threatened species, and at the same time, obtain the certification required for exporting.

In his address, Dr. Don Robinson, the FAO Representative for Trinidad and Tobago, greeted the participants on behalf of the Director-General of FAO, and provided a summary of the decisions of the Ninth Session of the Western Central Atlantic Fisheries Commission (WECAFC). These included the agreement that the Commission should have a simple structure consisting of a Secretariat, a Scientific Advisory Body which will act as an advisory body to the Commission and *ad hoc* working groups with clearly defined terms of reference. He noted that one of these *ad hoc* groups was the WECAFC *ad hoc* Working Group on Shrimp and Groundfish Resources on the Brazil-Guianas Shelf, which was working over the past four years on the assessment of the status of the main commercial species of shrimp and fish species in the region. The results of the stock assessment would be presented to the stakeholders during the workshop and based on these results, the government and stakeholders could collaborate in determining a national strategy for sustainable utilisation of the fisheries resources of Trinidad and Tobago. He wished the participants a successful meeting.

The Honourable Minister of Agriculture, Land and Marine Resources, Mr. Trevor Sudama, in his address thanked the fishers for attending and the FAO for the assistance it has provided to Trinidad and Tobago over the years. The Minister mentioned the importance of fisheries as a source of food and his concerns for declining fish stocks world wide, which he saw as a crisis looming on the horizon, if urgent efforts were not taken at the national, regional and international levels to halt this decline. He spoke of the importance of managing the fisheries resources for sustainable production and commended the work of the WECAFC *ad hoc* Working Group on Shrimp and Groundfish Resources on the Brazil-Guianas Shelf, which was but the starting point for achieving the desirable goal of sustainable fisheries in the

Brazil-Guianas region. The Minister gave a brief description of the shrimp fishery of Trinidad and Tobago, and highlighted both the decline in landings and exports over the years. He emphasised Government's commitment to stakeholder participation in the management of marine resources and felt that this workshop, with similar objectives, was timely. The Minister expressed the hope that participants will actively participate in both days of the workshop and said that he looked forward to receiving their report, which would certainly influence decisions on the management of fisheries in Trinidad and Tobago.

## **Workshop Programme**

The Workshop Programme is attached as Appendix 2.

## **The Trawl Fishery of Trinidad and Tobago**

Ms. Suzette Soomai and Ms. Lara Ferreira presented an overview of the trawl fishery that included a description of the fleets, the landing sites, fishing areas, landings, employment, revenues and exports. There were two inshore artisanal fleets, one offshore semi-industrial fleet and one industrial fleet. Trawling grounds represent 6% of the EEZ. All types of trawlers operate in the Gulf of Paria while the industrial fleet also operates in the Columbus Channel, which was also exploited by Venezuelan vessels.

Five species of shrimp were exploited for total annual landings which ranged from 1000 to 2000 *t* approximately, valued at TT\$ 15 to TT\$33 million, for the period 1992 to 1995. More than half the landings were by the industrial fleet that generated 62% of the revenue. The artisanal fleet generated 30% and the semi-industrial fleet 8% of the revenues respectively. For the period 1992 to 1995, shrimp exports increased from 288 *t* valued at TT\$ 6.3 million to 500 *t* valued at TT\$ 17.6 million. After 1995, exports declined and 163 *t* valued at TT\$ 10 million was exported in 1998. For the period 1992-1995, approximately 1,400 – 2000 *t* of by-catch was landed, 80% of which was landed by the industrial trawlers. In the artisanal fleet, for every kg of shrimp landed, there was 12.2 kg of by-catch, 1.2 kg of which was discarded. In the semi-industrial fleet, there was 9.1 kg of by-catch per kg of shrimp caught, 2.6 kg of which was discarded. For every kg of shrimp landed by the industrial fleet, there was 0.6 kg of by-catch, 0.4 kg (60%) of which was discarded. Discards were mainly juveniles of commercially important species.

## **Status of stocks including bio-economic analysis**

### **Groundfish**

Ms. Suzette Soomai presented the results of the stock assessments conducted for the Whitemouth croaker (*Micropogonias furnieri*) and the salmon (*Cynoscion jamaicensis*) using catch and effort data obtained from the artisanal and semi-industrial trawlers, gillnets, palangue, banking and a-la-vive gear operating in the Gulf of Paria from 1989 to 1997. The results showed that the current levels of effort exceeded the levels at which maximum sustainable yield can be maintained for both species.

The results of joint assessments between Trinidad and Tobago and Venezuela for Croaker, using catch and effort data, for the six Trinidad and Tobago fleets and the Venezuelan industrial and artisanal fleets, as well as biological data from the Venezuelan industrial fleet, were also presented. The results indicated that the maximum sustainability for

croaker was 1500 *t*, which was generally exceeded for the period 1987-1993 and in 1998. It was recommended that fishing effort should not increase beyond current levels. The results of bio-economic analyses on these two species supported a management strategy moving towards limiting entry with an optimum effort of 110,776 fishing days.

## Shrimp

Ms. Lara Ferreira presented the results of the assessment of brown shrimp (*Penaeus subtilis*) in the Orinoco – Gulf of Paria region using landings and trip information for the period 1973 to 1996 for the artisanal, semi-industrial and industrial trawl fleets of Trinidad and Tobago and the industrial trawl fleet of Venezuela. The results indicated that the maximum sustainable yield was 1,300 *t* which can be obtained with a maximum fishing effort of 13,000 days at sea for the combined fleets. The results showed that the shrimp resources were over-exploited for the period 1990-1993 and recommended that the fishing effort should be maintained at 11,000 days (4,500 for Trinidad and Tobago and 6,500 for Venezuela). Landings and catch rates would have to be continuously monitored in order to adjust fishing effort to allow for the rebuilding of the stocks.

The results of the costs and earnings study conducted for the trawl fishery of Trinidad and Tobago in 1997 indicated that the small trawlers were more efficient than the large trawlers. For every dollar spent in operating the shrimp vessel, a dollar was earned for the industrial trawler, TT\$ 1.40 was earned by the semi-industrial and TT\$1.60 by the artisanal trawlers, respectively. The annual rate of return on investment was estimated at about 33% for the artisanal trawler, 6% for a semi-industrial trawler and -13% for an industrial trawler.

The results of the bio-economic analyses utilising economic and biological data from both the Trinidad and Tobago and Venezuela trawl fleets indicated that the maximum effort for attaining the maximum yield of US\$ 46.1 (US\$ 28.5 million for Venezuela and US\$ 17.6 million by Trinidad and Tobago) was 12,697 fishing days (5000 days for Trinidad and Tobago and 7,697 for Venezuela). The study recommended that the fishing effort for both the Trinidad and Tobago and Venezuela fleets should not be increased beyond the current level. In addition, 61% of the current effort of Trinidad and Tobago and 82% of the current effort of Venezuela would yield maximum benefits for this shared fishery.

The following points were raised during the discussions that followed:

- the need for a better fisheries extension service and to improve the communication between scientists (researchers) and fishers in the dissemination of research results and information;
- future research efforts should take into account natural environmental factors, for example, the changes in nutrient availability from the Orinoco river that affect the recruitment of new individuals to the fish population;
- the costs and revenues of the industrial shrimp trawler should be reviewed and the sample size be increased to achieve better estimates of the annual rate of return on investment;

- in addition to by-catch studies, the artisanal fishers suggested that research should also be done to determine the impact of trawling on the benthic habitat; and
- attention should also be placed on the multiple objectives (employment, foreign exchange, food, profits, etc) for managing fisheries in the region and that alternative management strategies should be based on optimum effort that takes into account trade-offs.

## **Perspectives of stakeholders**

### **Semi-industrial Trawl Fishery**

Mr. Ragendra Bachan presented the views of the semi-industrial trawler owners who operated out of Orange Valley. He stressed the need to improve selectivity of trawl gear to reduce by-catch and protect juvenile fish. The idea of using discards for fish meal production utilising solar energy for drying, and natural gas, as an energy source for processing, was being explored with the University of the West Indies.

### **Industrial Trawl Fishery**

Mr. Dexter Khan presented the views of the industrial trawler owners based at the National Petroleum Compound, Sea Lots. He gave details on the operation of this fleet and a description of the catch, including the by-catch and discards and identified the need for additional research on the reduction of by-catch. He also supported the use of TEDs.

Mr. Khan observed that catches have been declining over the years and recommended that no new vessels should be allowed to enter this fishery at this point in time. He mentioned the possible influences of the outflow of the Orinoco river and the Orinoco Delta on the shrimp and groundfish stocks in the Gulf of Paria and supported joint research and sharing of data between Venezuela and Trinidad and Tobago. One significant observation, according to him, was the absence of the “Hopper” shrimp (*Penaeus brasiliensis*) in the Gulf of Paria during the last six years. He noted that this species would normally be caught once a year for about one month.

### **Artisanal Gillnet Fishery**

The representative of the artisanal gillnet fishermen based at Moruga, Mr. Peter Gloudon, gave a brief history of the use of gillnets in the eastern and southern coasts of Trinidad. He made a comparison of local gillnets and international industrial drifting gillnets and highlighted the negative impacts. He described the construction and deployment of monofilament and multifilament gillnets and noted that monofilament gillnets were more economical to use and were safer for fishermen, since they could be deployed during the day and so avoid piracy at sea. He called for a review of the Government’s decision to ban the monofilament gillnet since the species caught was a function of the spatial location of the nets (floating or bottom-set) and length, depth and mesh size of the nets. The catch of juveniles can be drastically reduced by using the appropriate mesh size.



During the discussions, the following issues affecting the fisheries sector were identified:

- Some participants expressed strong reservations regarding the use of discards for fish meal production in that it may lead to the targetting of juveniles as a source of raw materials for the proposed fish meal plant.
- Need for improved communication between scientists and stakeholders especially in the dissemination of research results;
- Lack of appropriate management strategies for artisanal fisheries;
- Need for better data from the industrial fleet on by-catch, discards, revenues and costs;
- More effective enforcement to protect the resources with the EEZ of Trinidad and Tobago; and
- Need to investigate the ecological impacts of the industrial and artisanal fisheries in the Gulf of Paria and establish zones to protect nurseries and juveniles.

### **Current Management Measures: Policy and Legislation**

Senior Fisheries Officer, Ms. Anne Marie Jobity, described the process by which fisheries policy was developed. She outlined the biological, environmental, socio-economic, technological and political inputs into policy formulation and provided examples of relevant fisheries legislation to illustrate the process.

### **Issues identified for Working Groups**

The following issues were identified by the participants for discussions in working groups:

#### **Group 1**

##### Fishing Gear

- Trawl
- Monofilament and multifilament gill nets
- Palangue (long line)

#### **Group 2**

##### By-catch & Discards

- By-catch Reductions Devices (TEDs)
- By-catch reduction and utilisation

### **Group 3**

#### Trinidad and Tobago/Venezuela Co-operation

- Trinidad and Tobago/Venezuela fishing agreement
- Research/Sharing of data and information

### **Group 4**

#### Unregulated and Unreported fishing

- Monitoring, Control and Surveillance

### **Group 5**

#### Control of Fishing Effort

- Licensing
- Fishing seasons
- Fishing areas
- Fishing gear

Participants were requested to join a working group of their choice and to select a chairperson and rapporteur who would present the report of the group at the plenary session. The composition of these groups is given in Appendix 3.

## **Report of Working Groups**

### **Group 1**

#### **Fishing Gear**

The Group highlighted the following in its report:

- A licensing regime for commercial and recreational vessels should be implemented on a phased basis;
- A limit should also be placed on the existing numbers of vessels in all fishing fleets;
- Regulations should be made and enforced for all fisheries;
- The number of trawlers should be limited and zoning regulations should be enforced; and
- The use of turtle excluder devices (TEDs) and by-catch reduction devices (BRDs) should be compulsory.

It was emphasized that there should be no banning of the monofilament gillnet. Regulations regarding mesh sizes should be the same for monofilament and multifilament gillnets. The mesh size should be regulated at 3–3 ½ inches for the mullet fishery. There should be an increase in the minimum mesh size for gillnets deployed on the South Coast to 4 inches and to 3¾ inches for gillnets set in the Gulf of Paria.

Participation in decision-making with all fishing interests being represented was recommended, as well as the increase in the number of fisheries extension officers to improve communication between the Fisheries Division and the fishing industry.

## **Group 2**

### **By-catch & Discards**

The Group provided the following estimates of by-catch for the various fleet:

- Catches of artisanal trawlers was comprised of 40% by-catch of which 10% was landed, 10% of by-catch was alive and goes back into the sea, and 20% of by-catch was discarded;
- For semi-industrial trawlers 50% of total catch was by-catch, of which 20% was discarded and 30% was sold;
- For the industrial trawlers, 60% of total catch was by-catch of which 40% was discarded and 20% was sold;
- Palangue had a 1% discard rate; and
- For monofilament and multifilament gillnets, 50% of catch was dead or damaged and this varies according to the amount of net used and the length of time spent fishing. This gear catches considerably less by-catch than the trawl net.

It was recognised that by-catch was composed of large quantities of juveniles of commercially important fish species as well as spawners. Several suggestions were made to reduce by-catch which included:

- Trawlers should drag their nets for shorter periods of time;
- The semi-industrial and industrial trawl fleet should agree to test and use fish excluder devices (FEDs);
- Industrial vessels can retain the “mixfish category” instead of discarding it at sea;
- Palangue hooks should be larger to avoid catching juveniles;
- Spawning or nursery areas for fish and shrimp need to be identified and zoned;
- Increase the mesh size of monofilament and multifilament gillnets; and
- Shorter length of monofilament and multifilament gillnets should be used and duration of fishing sets should be reduced.

Research into the use of by-catch reduction devices and utilization of by-catch should be conducted together with the stakeholders. A feasibility study should be done on establishing a fish meal plant to convert discards to fishmeal. The results of this study should be shared with all stakeholders. Enforcement of relevant regulations, such as zoning and mesh size, was necessary.

### **Group 3**

#### **Trinidad & Tobago/Venezuela Co-operation**

It was the general view that the present Trinidad and Tobago/Venezuela Fishing Agreement was not in the best interest of local fishermen. The main concern raised was the use of the "Common Fishing Area" in the Columbus Channel.

The Group suggested the following:

- Re-negotiating the Trinidad and Tobago/Venezuela Fishing Agreement;
- Extending the Common Fishing Area in the Columbus Channel;
- Determining the true geographic position of the Trinidad and Tobago/Venezuela Delimitation Line in the Gulf of Paria with regards to Soldado Rock. There seems to be uncertainty as to whether it was in Trinidad and Tobago waters or Venezuelan waters;
- Training for captains in navigation;
- Implementing a licensing regime based on the payment of a fee to fish in Venezuelan waters;
- Establishing a research fund to facilitate ongoing fish stock assessment work, especially between Trinidad and Venezuela; and
- Improving the Extension Services of the Fisheries Division in order to disseminate results of stock assessments to the fishing industry.

The problems experienced by fishermen involved in the mullet fishery at Claxton Bay were highlighted. These fishermen export their fish to Venezuela. Due to persistent problems with the Customs and Excise Division it was suggested that San Fernando be made a port with a Customs post to facilitate trade.

### **Group 4**

#### **Unreported and Unregulated Fishing**

This group suggested the implementation of a licensing regime for all vessels at designated landing sites, so that the Fisheries Division can efficiently monitor all fisheries. Recreational and sports-fishing boats also need to be licensed and monitored.

There is a need for more research by the Fisheries Division and it was suggested that the 5% road tax, paid on fuel by fishermen, should be used to establish a fisheries fund for research and management.

The monitoring of the fishery for swordfish and other large pelagics needs to be improved.

## **Group 5**

### **Management of Fishing Effort**

This group gave suggestions on addressing the issues of the implementation of a licensing regime for fishing vessels, open and closed seasons and restrictions on fishing gear. It recommended the conduct of a fisheries census (the last census was in January 1998) and based on the results undertake the following:

- Freeze the number of trawlers (all fleets) at current levels;
- Develop a policy that will differentiate between the bona fide commercial fishermen from the pleasure boat sector. Establish criteria for annual licensing and review the eligibility for certain benefits; and
- Enhance the current registration and licensing system and develop a well-defined system for transfer of licenses and replacement of vessels.

With respect to closed seasons and areas, the Group suggested the following:

- Review current policy with a view towards extending the season on the north coast;
- For Type IV Trawlers it was suggested to move the closed season from two months to four months (15 October – 15 February);
- Extend the fishing area past Galeota point on the South Coast;
- Enforce existing fishery regulations and laws. Review the penalties for not using TEDs which currently hold the owners of vessels liable to fines or imprisonment and not the captains.

With respect to monofilament gillnets, the Group made the following suggestions:

- Limit operations of monofilament “bottom-set” (submarine) gillnet fishermen on the South Coast to beyond 10 fathom isobath and increase minimum mesh size to 4 inches; and
- Increase mesh size from 3 3/4 inches to 4 inches for nets set in the Gulf of Paria.

The Group also recommended improved communications through close collaboration between fishermen, Fisheries Division and the Coast Guard (enforcement), and the need to strengthen extension services to inform fishermen of research results.

The Group recognised the need to provide accurate and reliable data for effective management and policy making and requested Government to adopt a more participatory approach in data acquisition and in undertaking research studies.

The Group suggested the formalisation of the consultation process being initiated as a regular forum that should meet two times per year.

## General Agreements

Based on the discussions emanating from the Working Group reports, the workshop reached consensus on the following:

- (i) It was agreed that a census of the fishery should be conducted. The information generated should be used as a baseline for limiting entry (especially trawlers) into the fisheries at the current level and to establish an improved licensing and registration system. The fisheries sector (commercial, artisanal and recreational) should be regulated through an improved licensing and registration system.
- (ii) The participants agreed that regular meetings with stakeholders (similar to this one) should be formalised as policy of the Fisheries Division. Two meetings per year were suggested.
- (iii) The workshop agreed to adopt the precautionary approach, following the Code of Conduct for Responsible Fisheries, to guide fisheries management and development.
- (iv) The participation of stakeholders in the management and development of the fisheries sector through:
  - Improved communication between scientists (researchers) of the Fisheries Division and stakeholders on all aspects of fisheries including the dissemination of research results and in the conduct of research.
  - Consultation with stakeholders, before decisions are taken on matters pertaining to the sector.
  - Promotion of co-management and auto-regulation.
- (v) The workshop agreed that the ban on “bottom-set” (submarine) monofilament gillnets should be reviewed. Discussions should be held with fishers’ groups that utilise this gear regarding its regulation. Fishers had concrete suggestions on regulations, which they felt would be more beneficial to them and the industry as a whole, as opposed to a ban.
- (vi) In acknowledging the need for accurate data and information for policy formulation and making management decisions, the participants agreed to collaborate with the Fisheries Division, who should adopt a more participatory approach in obtaining fisheries data and information, and in undertaking research studies.
- (vii) The workshop recognised the need for co-operation with Venezuela in managing the fisheries resources of the Gulf of Paria and recommended that it should be pursued with the assistance of international agencies such as FAO.

## **Follow-up**

The Workshop identified the following activities for immediate follow-up action, in which the Fisheries Division should take the lead role (not in order of priority):

- (i) Conduct a census of the fishery. The information generated should be used as a baseline for limiting entry into the fisheries at current levels and to establish a licensing and registration system.
- (ii) Communicate more effectively with fishers through regular consultations on all relevant matters pertaining to the sector, with the objective of encouraging co-management and auto-regulation.
- (iii) Re-open discussions with the stakeholders who have alternative proposals, with respect to the banning of “bottom-set” (submarine) monofilament gillnets, with the objective of more effectively regulating this fishery.
- (iv) Clarify and review the penalties (fines and imprisonment) for not using TEDs which was directed to the owners of vessels under the current law and not to the captains of vessels.
- (v) Review the role and membership of the Fisheries Monitoring and Advisory Committee (MAC) with the objective of improving communication between the Committee and the stakeholders (especially fishers) and increased participation of stakeholders in the work of the Committee.

## LIST OF PARTICIPANTS - DAY 1

**Fishermen/Vessel owners**Trawl fishery

Mr Imtiaz Hosein	-	Otaheite
Mr Marick Kassim	-	Otaheite
Mr Hardeo Ramsundar	-	Cacandee
Mr Sankar Dial	-	Cacandee
Mr Ivan Maharaj	-	Waterloo
Mr Basdeo Maharaj	-	Waterloo
Mr Shaffie Mohammed	-	Orange Valley
Mr Rajendra Bachan	-	Orange Valley
Mr Dexter Khan	-	N.P. Fishing Complex, Sea Lots
Mr Bruno Maharaj	-	N.P. Fishing Complex, Sea Lots
Mr Henry Meyers	-	N.P. Fishing Complex, Sea Lots
Mrs Ingrid Meyers	-	N.P. Fishing Complex, Sea Lots
Mr Heeralal Bachan	-	N.P. Fishing Complex, Sea Lots
Mr Rabindranath Mankee	-	N.P. Fishing Complex, Sea Lots

Artisanal gillnet fishery

Mr Padun Jaggernaut	-	Cedros
Mr Azim Ali	-	Cedros
Mr Prechan Harrichan	-	Cedros
Mr Salim Gool	-	San Fernando
Mr Ramnath Birbal	-	Brickfield
Mr Peter Glodon	-	Moruga
Mr Anthony Bugros	-	Moruga
Mr Howard Kilpatrick	-	Penal
Mr Stephen Kasim	-	Penal
Mr Kenneth Mungal	-	Penal
Mr Kishore Boodram	-	Claxton Bay
Mr Azard Mohammed	-	Claxton Bay

**Fishermen Organisations**

Mr Jocelyn Lequay	-	Secretary, National Organisation of Fishing and Allied Co-operatives Society Limited (NOFACS)
Mr Cyril Rogers	-	Cedros Fishing Co-operative

National Agriculture Marketing and Development Co-operation (NAMDEVCO)

Mr Prakash Narinesingh	-	Orange Valley Fish Market
Mr David Gangaram	-	Orange Valley Fish Market
Mr Mahadeo Budhoo	-	Orange Valley Fish Market



## **Ministry of Agriculture, Land and Marine Resources**

Mr Trevor Sudama - Minister of Agriculture  
Mr Swallay Mohammed - Permanent Secretary, Ministry of Agriculture

### Administration

Ms Lena Davis - Administrative Officer, Ministry of Agriculture

### Planning Division

Mr Alvin Seeraram - Director  
Mr Toolaram Ramlal - Planning Officer  
Ms Yvonne Davidson - Planning Officer  
Ms Sherise Ibrahim - Planning Officer

### Legal Division

Ms Wendy Ramkerrysingh - Legal Officer, Ministry of Agriculture

### Fisheries Division

Mr Carlisle Jordan - Director of Fisheries  
Ms Ann Marie Jobity - Senior Fisheries Officer, Fisheries Division  
Mr Shikool Imamshah - Clerk IV  
Ms Sita Kuruvilla - Fisheries Officer  
Ms Lara Ferreira - Fisheries Officer  
Ms Suzuette Soomai - Fisheries Officer  
Mr Harnarine Lalla - Fisheries Officer  
Ms Michelle Picou Gill - Fisheries Officer  
Ms Nerissa Nagarsar - Fisheries Division  
Mr Eustace Squires - Biological Data Collector, Fisheries Division  
Mr Colin Asgarali - Biological Data Collector, Fisheries Division  
Mr Carl Baptiste - Scientific Assistant, Fisheries Division  
Mr Waylon Chris Edoos - Data Collector, San Fernando  
Mr Eugene Benjamin - Data Collector, Erin  
Mr Kenrick Moodie - Data Collector, Fullerton  
Mr Stephen Alfred - Data Collector, Icacos  
Mr Kenneth Nehore - Data Collector, Bonasse  
Mr Randolph John - Data Collector, Moruga  
Mr Allen Edwards - Extension Officer, South regional Office

### Caribbean Fisheries Training and Development Institute (CFTDI)

Mr R. Chan A Shing - Gear Technologist  
Mr Joseph James - Shipmate (MV PROVIDER II)

### **Marine Affairs Section, Tobago House of Assembly**

Mr Alexander Thomas - Data Collector

### **Environmental Management Authority**

Ms Vanessa Ramrattan - Research Officer

### **Institute of Marine Affairs (IMA)**

Dr Amoy Lum Kong - Senior Research Officer

### **Ministry of National Security**

Lt. Comdr. Walcott - Coast Guard Representative

### **FAO**

Dr Don Robinson - FAO Representative for Trinidad and Tobago

Mr Bisessar Chakalall - Regional Fisheries Officer

Dr Juan Carlos Seijo - Consultant

### **CFRAMP**

Mr Terrence Phillips - Shrimp and Groundfish RAU Leader

## **LIST OF PARTICIPANTS - DAY 2**

### **Fishermen/Vessel owners**

#### Trawl fishery

Mr Christopher Poon - San Fernando  
Mr Ivan Maharaj - Waterloo  
Mr Basdeo Maharaj - Waterloo  
Mr Shaffie Mohammed - Orange Valley  
Mr Rajendra Bachan - Orange Valley  
Mr Bruno Maharaj - N.P. Fishing Complex, Sea Lots  
Mr Henry Meyers - N.P. Fishing Complex, Sea Lots  
Mr Heeralal Bachan - N.P. Fishing Complex, Sea Lots  
Mr Rabindranath Mankee - N.P. Fishing Complex, Sea Lots

#### Artisanal gillnet fishery

Mr Kiran Ramnath - Carli Bay  
Mr Azim Mohammed - Carli Bay  
Mr Salim Gool - San Fernando  
Mr Selwyn Blondell - San Fernando  
Mr Ramnath Birbal - Brickfield  
Mr Peter Glodon - Moruga  
Mr Anthony Bugros - Moruga  
Mr Kishore Boodram - Claxton Bay  
Mr Azard Mohammed - Claxton Bay

### **Fishermen Organisations**

- Mr Jocelyn Lequay - Secretary, National Organisation of Fishing and Allied Co-operatives Society Limited (NOFACS)  
Mr Cyril Rogers - Cedros Fishing Cooperative

### National Agriculture Marketing and Development Co-operation (NAMDEVCO)

- Mr David Gangaram - Orange Valley Fish Market  
Mr Mahadeo Budhoo - Orange Valley Fish Market

### **Ministry of Agriculture, Land and Marine Resources**

#### Planning Division

- Mr Toolaram Ramlal - Planning Officer  
Ms Yvonne Davidson - Planning Officer

#### Fisheries Division

- Mr Carlisle Jordan - Director of Fisheries  
Ms Ann Marie Jobity - Senior Fisheries Officer, Fisheries Division  
Ms Sita Kuruvilla - Fisheries Officer  
Ms Lara Ferreira - Fisheries Officer  
Ms Suzuette Soomai - Fisheries Officer  
Mr Harnarine Lalla - Fisheries Officer  
Ms Michelle Picou Gill - Fisheries Officer  
Mr Eustace Squires - Biological Data Collector, Fisheries Division  
Mr Colin Asgarali - Biological Data Collector, Fisheries Division  
Mr Carl Baptiste - Scientific Assistant, Fisheries Division  
Mr Kenrick Moodie - Data Collector, Fullerton  
Mr Stephen Alfred - Data Collector, Iacos  
Mr Kenneth Nehore - Data Collector, Bonasse  
Mr Allen Edwards - Extension Officer, South regional Office

### Caribbean Fisheries Training and Development Institute (CFTDI)

- Mr R. Chan A Shing - Gear Technologist  
Mr Joseph James - Shipmate (MV PROVIDER II)

### **Marine Affairs Section, Tobago House of Assembly**

- Mr Alexander Thomas - Data Collector

### **FAO**

- Mr Bisessar Chakallal - Regional Fisheries Officer  
Dr Juan Carlos Seijo - Consultant

### **CFRAMP**

- Mr Terrence Phillip - Shrimp and Groundfish RAU Leader

## WORKSHOP AGENDA

### OPENING CEREMONY

National Anthem

#### Welcome Remarks by the Chairman

*Mr Carlisle Jordan*, Director of Fisheries

#### Statement by Representative of the Fishing Industry of Trinidad and Tobago

*Mr Bruno Maharaj*, President, Trawler Owners Association

#### Overview of the Working Group on the Shrimp and Groundfish Fisheries of the Brazil-Guiana Shelf, Food and Agriculture Organization (FAO), Western Central Atlantic Fisheries Commission (WECAFC)

*Dr Don Robinson*, FAO Representative for Trinidad and Tobago

#### Remarks by the Honourable Minister of Agriculture, Land and Marine Resources

*Mr Trevor Sudama*

#### Closing Remarks

*Chairman*

### DAY 1

8:30-9:00 am Registration

9:00-9:40 am Opening Ceremony

9:40-10:00 am Break

**Chairperson:** Mr. Carlilse Jordon, Director of Fisheries

10:00-10:05 am Opening Remarks, Chairman

10:05-10:10 am Introductory statement on FAO/WECAFC Working Group on Shrimp and Groundfish Fisheries of the Brazil-Guianas Shelf  
Mr. Bisessar Chakallal, Regional Fisheries Officer

10:10-10:40 am Brief description of the Trinidad and Tobago trawl fishery: fleets, landing sites, fishing areas, landings, employment, revenues and exports. Ms. Lara Ferreira and Ms. Suzuette Soomai, Fisheries Officers

10:40-11:10 am	Status of stocks and implications for management including results of bio-economic analysis. Ms. Lara Ferreira and Ms. Suzette Soomai, Fisheries Officers
	<ul style="list-style-type: none"> <li>• Shrimp</li> <li>• Groundfish</li> </ul> Ms. Lara Ferreira and Ms. Suzette Soomai, Fisheries Officers
11:10-11:30 am	Bio-economic assessments in the regional context Dr. Juan Carlos Seijo, FAO Consultant
11:30a.m-12:00 pm	Discussion and questions
12:00:1:30 pm	Lunch
<b>Chairpersons:</b>	Mr. Laquay Joslyn and Cyril Rogers
1:30-2:30 p.m	Perspectives of the Stakeholders <ul style="list-style-type: none"> <li>• Artisanal Trawl Fishery - Mr. Selwyn Sooklal, Waterloo</li> <li>• Semi-industrial Trawl Fishery - Mr. Ragindra Bachan, Orange Valley</li> <li>• Industrial Trawl Fishery - Mr. Dexter Khan, Sea Lots</li> <li>• Artisanal Gillnet Fishery - Mr. Peter Gloudon, Moruga</li> </ul>
2:30-3:00 pm	Discussion
<b>Chairperson:</b>	Mr. Cyril Rogers
3:00-3:15 pm	Current Management measures for Shrimp and Groundfish Fisheries: policy and legislation. Ms. Ann Marie Jobity, Senior Fisheries Officer
3:15-3:30 pm	Management options and their implications. Ms. Sita Kuruvilla, Fisheries Officer
3:30-4:00 pm	Discussion

## **DAY 2**

8:30-9:00 am	Registration
<b>Facilitator:</b>	Bisessar Chakalall, FAO Regional Fisheries Officer
9:00-11:00 am	Group Discussions with Fishing Industry  Group 1- Management options for the Trinidad and Tobago Trawl Fisheries (Closed Areas, Closed Seasons and Limited Entry to trawl fishery)  Group 2- Logbook and Observer Programmes  Group 3- Alternatives to trawling  (NB: Topics for discussion will be selected at the end of Day 1)
11:00-12:30 am	Presentation of Group Reports and Discussion
12:30-2:00 pm	Lunch
2:00-3:00 pm	Plenary <ul style="list-style-type: none"><li>• Identify and prioritise areas for research and management</li><li>• Areas of co-operation with stakeholders</li><li>• Partnership arrangements</li></ul>
3:00-3:30 pm	Regional Approach/Co-operation in Research and Management: benefits/costs. Dr. Juan Carlos Seijo, FAO Consultant
3:30-3:45 pm	Future role of WECAFC <i>ad hoc</i> Working Group. Mr. Bisessar Chakallal, FAO Regional Fisheries Officer
3:45-4:00 pm	Closing remarks. Mr. Carlisle Jordan, Director of Fisheries



**WORKING GROUPS****GROUP 1**

Mr Salim Gool	-	San Fernando (artisanal gillnet)
Mr Azard Mohammed	-	Claxton Bay (artisanal gillnet)
Mr Peter Glodon	-	Moruga (artisanal gillnet)
Mr Bruno Maharaj	-	Trinidad and Tobago Trawlers Owner Association
Mr Kiron Ramnath	-	Carli Bay (artisanal gillnet)
Mr Selwyn Blondell	-	San Fernando
Mr Azim Mohammed	-	Carli Bay (artisanal gillnet)

**GROUP 2**

Mr Shaffie Mohammed	-	Orange Valley (artisanal and semi-industrial trawler)
Mr Rajendra Bachan	-	Orange Valley (artisanal and semi-industrial trawler)
Mr Basdeo Maharaj	-	Waterloo (artisanal trawler)
Mr Ramnath Birbal	-	Carli Bay (palangue)
Mr Allan Edwards	-	Extension Officer, South Regional Office
Mr David Gangaram	-	Orange Valley Wholesale Market
Mr Mahabir R. Budhoo	-	Orange Valley Wholesale Market

**GROUP 3**

Mr Cyril A Rogers	-	Cedros Fishing Cooperative
Mr. Joslyn Lequay	-	National Organisation of Fishing and Allied Co-operatives
Mr Kishore Boodram	-	Claxton Bay (artisanal gillnet)
Mr Alexander Thomas	-	Marine Affairs Section, Tobago House of Assembly
Mr Ivan Maharaj	-	Waterloo (artisanal and semi-industrial trawler)

**GROUP 4**

Mr Henry Meyer	-	Sea lots
Mr Stephen Alfred	-	Data Collector, Icacos
Mr Kenneth Nehore	-	Data Collector, Bonasse
Mr Kenrick Moodie	-	Data Collector, Fullerton
Mr Joseph James	-	CFTDI



**GROUP 5**

- Ms Yvonne R Davidson - Planning Division
- Mr Anthony G Burgros - Moruga
- Mr Rabindranath Mankee - T & T Trawlers Association
- Mr Heeralal Bachan - NP Fishing Complex, Sea Lots (Industrial trawler)
- Mr Christopher Poon - San Fernando