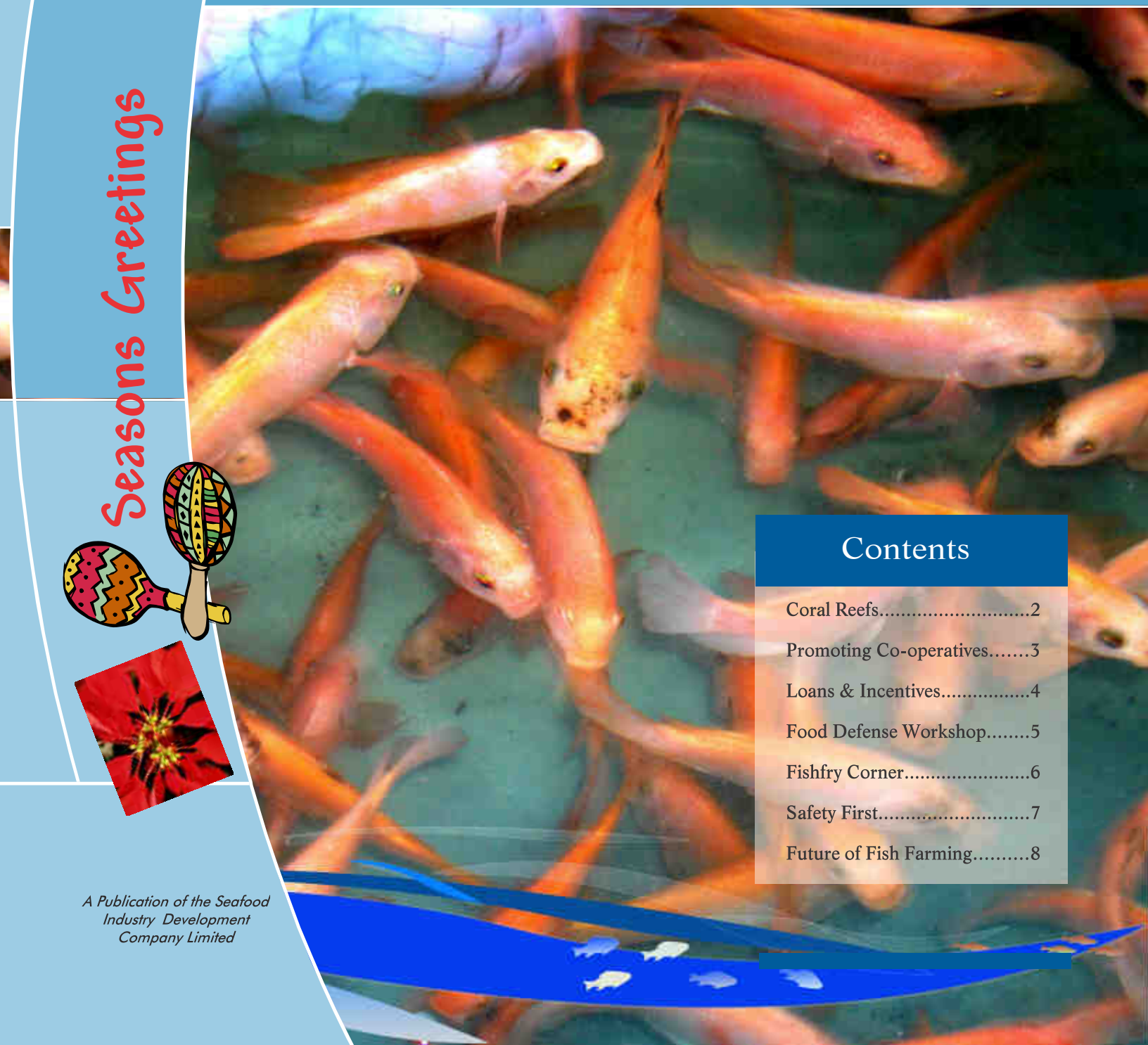
Volume 2, Issue 4
September 2009

# Fish IN

Newsletter of the Seafood Industry of Trinidad and Tobago



Seasons Greetings





## Contents

Coral Reefs.....2
Promoting Co-operatives.....3
Loans & Incentives.....4
Food Defense Workshop.....5
Fishfry Corner.....6
Safety First.....7
Future of Fish Farming.....8

*A Publication of the Seafood Industry Development Company Limited*

# CORAL REEFS! ...A WORLD OF BENEFITS!



A reef is a ridge or outcrop of rock in the sea that comes close to the surface. A coral reef is a reef that has been built largely or entirely by corals, tiny animals that live together in colonies that share a common external skeleton of calcium carbonate. Over hundreds or thousands of years the calcium carbonate skeletons build up, with new corals growing on the skeletons of the dead ones. This physical structure, with its living organisms, is a coral reef.

Coral reefs are often called the rainforests of the sea, both due to the vast amount of species they harbour, and to the high productivity they yield. Aside from having hundreds of species of corals, reefs support extraordinary biodiversity and are home to a multitude of different types of fish, invertebrates and other marine organisms. Covering less than one percent of the ocean floor, coral reefs support an estimated twenty five percent of all marine life, with over 4,000 species of fish alone. Reefs provide spawning, nursery, refuge and feeding areas for a large variety of organisms, including sponges, worms, shrimp, spiny lobsters, crabs, molluscs, starfishes, sea urchins, sea cucumbers, sea squirts, turtles and sea snakes.

The beauty of coral reefs makes them a powerful attraction for tourists. Well managed tourism provides a sustainable means of earning foreign currency and employment for people around the world, even in the remotest of areas.

Coral reefs are also an important source for food, especially for people living near them. In developing countries coral reefs contribute about one quarter of total fish landed.

Reef structures play an important role as natural breakwaters, which minimise wave impacts from storms such as cyclones, hurricanes or typhoons. The benefits from this protection are widespread, and range from maintenance of highly productive mangrove fisheries and wetlands, to supporting local economies built around ports and harbours where, as is often the case in the tropics, these are sheltered by nearby reefs.

Scientists realising the bio-medical potential of coral reef species are now turning to the oceans in the search for new cures for existing diseases and illnesses. Coral reef species offer particular promise because of the array of chemicals produced by many of those organisms for self protection. For instance, Curacin A is a commonly used drug used for treating several types of cancer including colon, lung and breast cancer. It was discovered through research done on coral reef species. According to one estimate half of all new cancer drug research now focuses on marine organisms.







## NEEDS ASSESSMENT OF THE FISHING INDUSTRY

On the 7th September, 2009 the Institute of Marine Affairs presented the results of the recently concluded "Assessment of the Needs of the Industry Stakeholders in the Fisheries Sector of Trinidad and Tobago" at the Rudranath Capildeo Learning Resource Centre. The report was officially presented to the SIDC, TTUF and Fisheries Division at this workshop.

This study was commissioned by the SIDC to identify developmental goals and establish programmes to address the needs of stakeholders in the fisheries sector. The study provided data on the social, economic and cultural issues that affect the stakeholders in the industry.

Major concerns identified by stakeholders included the need for physical infrastructure development at fish landing sites, inter-sectoral conflict especially with the oil and gas, tourism and transport (water taxi) sectors, inadequate representation and advocacy within the sector, poor governance, dwindling fish resources and a number of livelihood issues. Economic concerns and security of persons and property at sea and on landing sites were also major concerns expressed.

The Fisherfolk and Consultants provided a number of practical recommendations to address some of the concerns affecting the industry. The SIDC has agreed to seek partnership arrangements with the relevant regulatory and training agencies to address these concerns.

# Promoting Co-operative Business Models

The SIDC is partnering with the Business Development Unit of the Cooperative Development Division to host a series of workshops for fishing organizations in Trinidad and Tobago aimed at promoting the establishment of Co-operatives. The main objective of these workshops are to encourage fisherfolk to form cooperatives, so that persons involved in the fishing industry can take advantage of business opportunities that may not be available to them individually.

Discussions were held on the importance of planning, determining an organisation's goals, shaping the organisation's business model and developing marketing strategies. Training was provided to the fisherfolk organizations and groups from Balandra, Slaybia, Toco, Cumana, Mayaro, Guyaguyare, Moruga, Erin, Morne Diablo, Fullerton, Cedros, San Fernando, Marabella, Orange Valley, Claxton Bay, Cacandee, Brickfield, Cocorite, Almoorings, Maracas, Las Cuevas and Blanchisseuse. Feedback from the fishing communities have been very positive with groups from Mayaro, Orange Valley and the North East Coast making formal requests for assistance to the Commissioner for Co-operative Development in forming fishing co-operatives.



For more information on forming Fishing Cooperatives contact:

Ministry of Labour and Small and Micro Enterprise Development
Cooperative Development Division
Duncan Street Complex
Corner Duncan Street and Independence Square North, Port of Spain
Tel. Number: 623-5888
Fax Number: 624-6504



# Loans and Incentives

## *Direct Payments or Money Transfers by Government*

*Ministry of Agriculture, Land and Marine Resources - Agriculture Incentive Programme for Agriculture, Forestry and Fisheries (1999)*

This programme was intended broadly, to revise previous incentive programmes and to address constraints to agricultural production, marketing and distribution within the context of trade liberalization, the WTO/GATT Agreement and the Agricultural Sector Loan conditionalities with the Inter American Development Bank.

The objectives of the programme were to support the industry through increased access to technology, encourage increased production; provide incentives for those industries which seek to become internationally competitive; introduce a more equitable playing field for all stakeholders; and increase the development and transfer of technology to the farming community. (http://www.agriculture.gov.tt/applicationloader.asp?app=articles&id=1101)

### *Owners of Fishing Vessels*

These subsidies reduce the costs of fishing vessels, vehicles, fuel, construction of ponds for aquaculture and damage to vessels and gear caused by mainly oil companies. These subsidies are offered to all fishermen, fishing vessel owners or fishing proprietors who are nationals of Trinidad and Tobago, and registered with the Fisheries Division.

- Subsidy on a replacement fishing vessel (pirogue). Registered vessel owners are eligible for a subsidy of 25% of the purchase cost of pirogues to a maximum of $5,000 for a replacement vessel. The replaced vessel must be scrapped and removed from the industry and the Fisheries Division's register of fishing vessels.

- Subsidy on the purchase of new semi-industrial vessels. Registered fishermen and vessel owners are eligible for a subsidy of 10% of the purchase cost of new semi-industrial vessels to a maximum of $50,000. The subsidy is limited to one boat per owner and applies to both locally built vessels and imported used vessels.

- Subsidy on the purchase of a vehicle where the applicant is an owner of three to five pirogues or one or more trawlers.

- Subsidy on fuel for use in fishing vessels is available to boat owners whose fishing vessel and engine are registered with the Fisheries Division.

- Compensation for oil damage to gear or vessels are handled directly by the responsible party and the affected fisherman.

## *Aquaculture Enterprises*

*Incentives are available for aquaculturists who are registered with the Fisheries Division*

- Incentive for construction of ponds for aquaculture.

### *Government Intervention that does not involve a Direct Money Transfer but has an explicit impact on the revenues or costs of the industry*

This includes measures that reduce or waive duty and tax charges, promote export, and provide loans on special terms.

- Duty and Vat Concessions for new vessels, new engines, engine parts and spares, new fishing tackle, new marine accessories including electronic equipment, other capital

equipment, construction material for new boats and imported fishing vessels. (http://www.agriculture.gov.tt/applicationloader.asp?app=articles&id=1101)

•Duty free imports of fish and fish products for processing for importers who have a concession approved by the Ministry of Trade and Industry and the Ministry of Agriculture, Land and Marine Resources. The grant of this concession is based on a list of criteria that determine local value added to the product. The application form and the criteria for accessing this concession are available from the Ministry of Trade and Industry. (http://www.tradeind.gov.tt/MTI%20Downloads/Appl_form_Ind_project.pdf)

•Concessionary loans from the Agricultural Development Bank (ADB). The ADB provides concessionary loans under the ADB Act No. 3 of 1968. Loans are provided to encourage and foster the development of agriculture, commercial fishing and related industries. (http://www.agriculture.gov.tt/documentlibrary/downloads/98/ADB%20Role%20-%20revised%20as%20at%2009%2028%2005.doc)

•Support for small business development from NEDCO. The National Entrepreneurship Development Company Limited (NEDCO) provides training, marketing support, business advice and project funding for small businesses including agro-processing, catering, and wholesale and retail trading. (http://www.nedco.gov.tt/)

•Free-trade zones designated under the Free Zones Act (1988) promote export development and foreign investment. Seafood processing is listed among the targeted export-oriented industries (http://www.gov.tt/citizen/service.aspx?id=%7B3F890D10-4DD0-465B-8B1B-DE4622094503%7D#WhatenterprisesareeligibleforFreeZoneStatus1)

# *Food Defense Awareness Training Workshop for the Caribbean*

The United States Government in conjunction with the Government of Trinidad and Tobago conducted a regional training workshop on "Food Defence Awareness". The workshop was held on August 20 – 21, 2009 at the HYATT Regency Hotel Port of Spain, Trinidad.

The main objective of the workshop was to provide a general overview of the U.S food defence initiatives relating to FDA's regulated products and promote an exchange of information amongst the experts assembled from the Caribbean.

This workshop was geared toward senior and mid-level representatives in government, industry and academia who are engaged in food protection, outreach and education. The Quality Assurance Officer and the Project Assistant of the SIDC were participants in this workshop.



# Seafood HACCP Compliance Workshop



The Seafood Industry Development Company sponsored a workshop at the Caribbean Fisheries Training and Development Institute from September 14th – 18th 2009, on Seafood Hazard Analysis Critical Control Point (HACCP) Compliance.

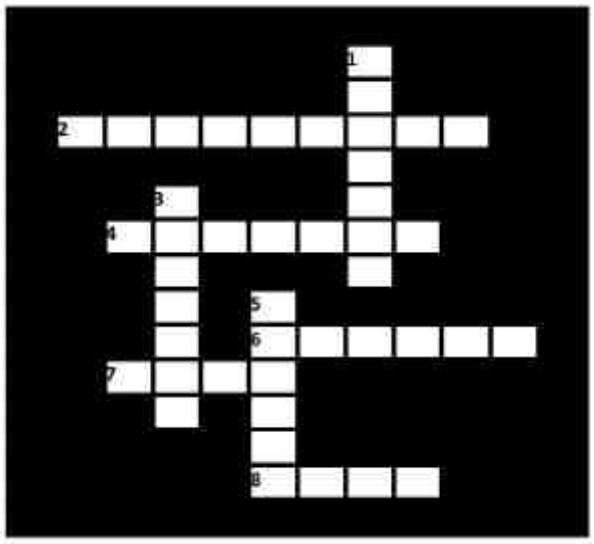
The course included a three-day US Department of Commerce Seafood HACCP Workshop, a one-day Sanitation workshop on the 8 key sanitation areas (US FDA Part 123) that correspond to the US FDA current Good Manufacturing Practices (Part 110), and a one-day on-site introduction to audit techniques.

Participants comprised representatives from the Fisheries Division, Ministry of Health – Public Health and Veterinary Public Health, NAMDEVCO, CARIRI, Seafood Processors and the staff of SIDC.

The workshop was facilitated by Ms. Abigail Villalba, Consumer Safety Officer & Training Instructor at Virginia Technical University and Mr. Michael DiLiberti, Training Instructor and Sensory Evaluation Expert, USDC Seafood Inspection Program.



## FISHfry CORNER



**Across**

2 Largest animal in the world

4 Traps fish behind gill flap

6 Tail fin

7 Good Sushi

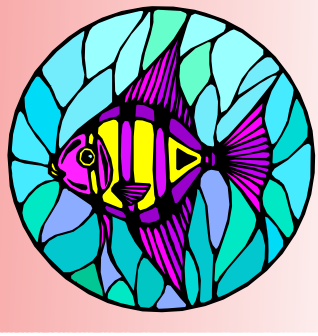
8 State company promoting development of the seafood industry

**Down**

1 Vessel targeting Shrimp

3 Small scale fishing vessel

6 External Protection for fish



ANSWERS: Across: 2. bluewhale, 4. gillnet, 6. caudal 7. tuna, 8. sidc
Down:1. trawler, 3. pirogue, 5. scales

# SAFETY FIRST!

## Boat safety



There is no better time than the present to check your safety equipment and identify what type of equipment you may need to purchase.



Here's a list of portable safety equipment you may wish to purchase and keep on your vessel:

1. Anchor's and anchor ropes
2. Batteries
3. Charts, other reference and/or navigational material
4. Fire extinguishers
5. First aid kit
6. Lines
7. Personal Floatation Devices (PFD)
8. Tool kit



*Remember to check the expiration dates and ensure that all equipment is working at optimum levels. Be Safe. Your life depends on it.*

# Regulations governing the Use of Gillnets



The Fisheries (Amendment) Regulation 2002

✓ Monofilament/ Fillet Nets
- Diagonal stretched mesh not to be less than four point two five (4.25) inches

✓ Monofilament/ Transparent Nets
- Diagonal stretched mesh not to be less than four point two five (4.25) inches except for use in the mullet and flying fish industry

✓ Monofilament nets for use in the mullet fishery
- Diagonal stretched mesh not to be less than 3.5 inches
- A person using monofilament mesh for catching mullet shall not bring t shore any species of fish other than mullet in excess of fifteen percent (15%) of the catch
- A person shall not carry on board a vessel at the same time monofilament mesh/nets for catching mullet and mesh or nets of another size

✓ Monofilament nets for use in the flying fish industry
- Diagonal Stretched mess not to be less than one point seven five (1.75) inches

# The Future of Fish Farming



The practice of fish farming is seen as a potential answer to the problem of food shortage caused by a growing world population. The world's oceans, previously thought to be a never ending source of food are being depleted of fish primarily through over exploitation. Current global production of aquatic species both wild caught and cultured amount to 144 million metric tones (mmt). Aquaculture currently accounts for 36% (52 mmt) of this global production. Based on the current annual consumption rate of 16.7 kg per capita, and an expected increase in the world's population of two billion by 2030, it is estimated that another 34 mmt of aquatic food would be needed by that time. Since world production of wild caught species is not likely to increase beyond the current 92 mmt, this increased production could only come from aquaculture. This presents a great opportunity for this country to expand business opportunities in this area and at the same time meet its growing demand for food.

However for aquaculture ventures to successfully take up this major challenge, there would be a need to continue improving on the efficiency of operations so that economic sustainability is assured. The big challenge facing the aquaculture industry today is how to increase output without increasing the cost of production. A potential solution to this problem may be in the utilization of production systems that maximize fish growth whilst minimizing the cost of feed and waste water treatment.

One such system that shows great promise in this regard is the biofluc (green water) system. Owing to the great promise of this production system, the SIDC took a decision to establish and field test two small scale tank based (green water) biofloc systems for Tilapia in order to collect data on the feasibility of these production systems. These systems will also provide an opportunity for hands-on training to interested individuals in the farming of Tilapia using these production methods. It is expected that this project would provide the stimulus required for the development of a vibrant and viable aquaculture industry locally.

Other forms of aquaculture that are considered sustainable include aquaponics. This involves the use of plants in conjunction with fish farming to reduce waste output and increase revenues from aquaculture ventures. The use of plants to reduce waste output from the production system also has the added value of lowering the environmental impact of the operation. Essentially, the waste water from the production tanks is used to provide nutrients for the plants. These plants can then be sold on the local market to bring in additional revenue. Once the plants have removed nutrients from the water, the water can then be re-used in the fish production system thus reducing cost of treating the water and reducing the need for additional water.

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