September 2008
Volume 1, Issue II

FishIN

Newsletter of the Seafood Industry of Trinidad and Tobago



A Publication of the Seafood Industry Development Company Limited

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MESSAGE FROM THE EDITORS

The SIDC takes great pleasure in presenting the second issue of our quarterly newsletter FISH-IN. This publication provides information on current developments in the sector. We hope you find the contents valuable and we urge you to provide feedback so that we can better serve your needs.

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SIDC
Seafood Industry Development Company

Mission Statement

"To support the sustainable growth of the seafood sector in partnership with all stakeholders through effective use of project management, research, publishing, training, mentoring, consulting and network brokerage services"



Why eat Fish?

Fish is an important part of a balanced diet. Research has shown that fish is good source of protein, long-chain omega-3 fatty acids, vitamin D, Vitamin B12, selenium and iodine. It has also been shown that Omega 3 fatty acids improves the elasticity of blood vessels, prevents blood clots, reduces blood pressure, stabilizes heart rhythm and thus reduces the risk of a heart attack. Fish is especially important for children, young people, pregnant women, lactating mothers and other vulnerable groups.

Salt fish! It sweeta than meat! All Salt fish Sweet!!!-

The Mighty Sparrow, 1975

Salting as a method of preserving fish has been used for centuries in many places around the world including Asia, Europe, and Latin America. It has been reported that from as early as 2800 BC, the Egyptians were exporting salted fish in exchange for cedar, glass and dyes.

In the usual process of salting, whole fish are eviscerated, cleaned, washed, split or filleted and salted. They are then left to cure under cool conditions for at least 5 days. The curing period depends on several factors including the desired characteristics, the fish species, the amount of salt used and the curing temperature.

The simplicity of the salting process, the low cost of production and the ease with which it combines with other preservation methods such as drying or smoking, has led to its popularity and extensive use. Today, salted fish is a very popular food ingredient worldwide, particularly in Latin American and Caribbean cooking.

Recipe– Accra



INGREDIENTS	METHOD
454 g (1 lb) Salt fish 2 cups flour 1 egg 2 small tomatoes 10 g (2 tsp) salt 1.25 g (¼ tsp) powdered clove 10 g (2 tsp) baking powder 500 ml (2 cups) oil Seasoning (onion, garlic, hot pepper)	Boil, de-bone and finely strip salt fish. Wash vegetables. Add salt fish. Cut up other vegetables and seasoning. Combine flour and other ingredients. Beat with a wooden spoon. Shallow fry using a spoon to dip. *Garnish with celery and flavouring pepper.* *This Recipe Courtesy Sonia Osmond, Tobago*

FISHERFOLK COMPLETE SALT CURING COURSE



Recognizing that there is a specialized "niche" market for salted mullet in Venezuela, the Claxton Bay Fishing Association has requested the assistance of the SIDC in providing training for their membership in the curing (salting & smoking) of fish and fishery products. Four members of this association together with five persons from other communities around Trinidad completed a three week training course at the Caribbean Fisheries Training and Development Institute from August 18th – September 5th, 2008.

The course provided training in the proper handling, salting and smoking of fish. The Claxton Bay Fishing Association has indicated that they would like to set up and operate a cottage type business operation to salt mullet. They believe that this will provide their members with a ready market for their fresh mullet, generate employment and serve as a means of earning additional income since salted product fetches a higher price than fresh product at market. They have expressed an interest in meeting with the SIDC and the Fisheries Division of the Ministry of Agriculture, Land and Marine Resources to further discuss their Business Plan.



TTUF Meets Minister

Members of the executive of the Trinidad and Tobago United Fisherfolk (TTUF) met with the Hon. Arnold Piggot, Minister of Agriculture, Land and Marine Resources on Friday 22nd August, 2008 at the Minister's Office in St Clair.

The President of TTUF, Mr. Emile Louis presented the Hon. Minister with TTUF's Work Plan which highlighted TTUF's activities in the upcoming year. Some of the issues discussed with the Hon. Minister included the existing conflict with the energy sector, the proposed water taxi service, management of landing sites and financial support for Primary Fisherfolk Organizations and TTUF.

The Hon. Minister indicated that he would review TTUF's Work plan and provide some feedback shortly.

Fisherfolk Get Tech Savvy!



The Seafood Industry Development company (SIDC) provided computer literacy training to Fisherfolk in Marabella. Training was held at the San Fernando Fishing Depot, Kings Wharf, San Fernando during the period August 4th – 12th, 2008.

The executive members of the Marabella Fishing Association indicated that this type of training was important to improve the skills base of their members thereby allowing them access to a wider range of employment opportunities.

As part of its programme to "Empower Coastal Communities", the SIDC will continue to assist rural fishing communities to access training, improve their livelihood and strengthen fisherfolk organizations.

Co-management: Involving Stakeholders in Decision Making



What is co-management?

Co-management is the sharing of decision making and management functions between government and other stakeholders in the fishing industry. It is not a single solution to fisheries management but rather should be seen as a process which will change over time in response to levels of of trust, credibility of the various stakeholders and success of the partnerships developed. In this process the partners actively work together sharing the cost and benefits as well as successes and failures.

Co-management initiatives in Trinidad and Tobago are not well advanced mainly because the existing fisheries legislation does not make provisions for stakeholder participation in the management of local fisheries resources.

To address this concern, the Fisheries Division of the Ministry of Agriculture, Land and Marine Resources has drafted a new fisheries policy and associated legislation which now allows for the establishment of co-management initiatives.

The most direct local co-management initiative has been the establishment of the Monitoring and Advisory Committee (MAC) on the fisheries of Trinidad and Tobago. This Committee was established in 1996 and draws its membership from Government agencies, private sector stakeholders, NGOs and other affiliated agencies such as the Institute of Marine Affairs (IMA) and the University of the West Indies (UWI).

The MAC provided a forum for stakeholders to discuss issues of immediate concern to the industry and provide feedback to fishing communities on action taken to address their concerns. Unfortunately since May 2008, the term of office of the MAC has ended with no immediate plans for its re-establishment.

The IMA has also assisted in developing a co-management framework for fishing communities from Ortoire to Guayaguayare. They conducted training and promoted in the formation of the Women in Fishing Association (WIFA), an organization made up of the wives of fisherfolk. WIFA's focus is to engage in business and other social welfare projects that would benefit the lives of their members and the wider community.



Co-management Workshop in Mayaro

What does co-management mean to Trinidad and Tobago Fishers?

- Increased transparency and accountability in the management process
- Localised solutions to local problems
- Increased use of indigenous (local) knowledge to complement scientific knowledge in developing management plans
- Improved stewardship of the resource base
- Involvement in the formulation and implementation of regulatory measures resulting in a higher degree of acceptance and compliance and
- Increased communication and understanding among partners to minimise conflict

Partnering with Tobago

The Chief Executive Officer, Industry Specialist and Quality Assurance Officer of the SIDC met with Dr. Anslem London, Secretary of the Division of Finance and Enterprise Development of the Tobago House of Assembly on Friday 8th August, 2008 in Tobago. The purpose of the meeting was to exchange information on the work currently being undertaken by both organizations and to explore opportunities for future collaboration.

Dr London was very excited about the work that the SIDC had already done in Trinidad. He indicated that he had visited a number of fish landing sites abroad and would like to see properly designed and well managed local facilities with all the modern amenities. He stressed that as a tourist destination, Tobago needed to position itself as a leader for change and pledged his support for the development of the fishing industry of Tobago.



Above: L-R (Dr Anslem London, Cloyd Blackman, Carlise Jordan, Charles Nurse)
Below: L-R (Dr. Doon Ramsaroop, Charles Nurse, G. Ottley, Ethlyn John)



Staff of the SIDC also met with Ms. Ethlyn John, Administrator of the Division of Agriculture, Marine Affairs, Marketing and the Environment on Friday August 8th, 2008 to agree on an implementation schedule for collaborative projects between the THA and the SIDC. The SIDC will begin a series of institutional strengthening training programs for Primary Fisherfolk Organizations in Tobago in October 2008 and will facilitate Health and Safety, HACCP and Quality Assurance training programs in collaboration with stakeholders of Tobago.



Can foreign investors establish fishing companies in T&T ?

Foreign investors can establish locally based companies in Trinidad and Tobago. All investors are required to register their businesses in accordance with the laws of Trinidad and Tobago. The requisite forms and procedure for registration can be obtained from the Ministry of Legal Affairs or through the Government of Trinidad and Tobago Information Portal at http://www.gov.tt



Safety starts before you go fishing. Check all equipment

Wear a personal flotation device at all times.





When fishing, carry a marine radio or some means of communication.

(Photos taken from www.iws.ie)

SAFETY FIRST

Fishing is a high risk job which historically has resulted in many fatalities and/or injuries that impact on the ability of fisherfolk to sustain their livelihoods. These fatalities and injuries can be avoided in many instances if simple controls and corrective measures are used to address the management of these risks.

Loss of life due to drowning and other work related hazards, critical injuries leading to partial or full disability and dismemberment (loss of limbs) occurring as a result of fishing activities can seriously affect the social and financial resilience of coastal communities. Families are affected. Businesses are affected. Livelihoods are lost and Profitability decreases. There can be no true development or modernization of the fishing industry if the health and safety of fisherfolk is not properly addressed.

The SIDC has recognized the importance of focusing on the health and safety needs of the fishing community as part of its overall commitment of transforming and modernizing the seafood industry. A series of health, safety and environmental programs are being developed by the SIDC that highlight key health, safety and environment issues affecting the industry. Specialized training programs will be developed in collaboration with the Fisheries Division, Maritime Services Division, Caribbean Fisheries Training and Development Institute and other key agencies. Public education material highlighting proper safety practices have been developed and will be introduced to fishing communities around Trinidad and Tobago.

Insurance for Fisherfolk



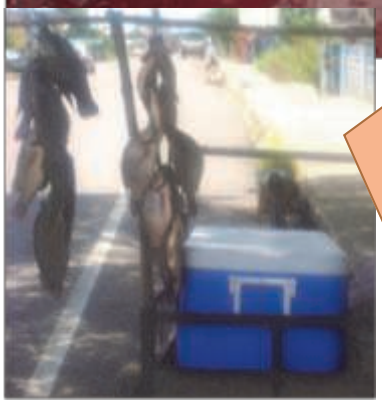
Fisherfolk from various communities around Trinidad and Tobago met with representatives of the National Insurance Board at the Offices of the SIDC. The objective of the exercise was to discuss the means by which fisherfolk and other self employed persons could be included under the National Insurance Scheme.

Fisherfolk indicated that they were very interested in coming under the umbrella of the NIB since they would be eligible for pension and the other benefits under the National Insurance Scheme. The National Insurance Board made a presentation to the fisherfolk and highlighted the current benefits offered under the scheme. They also obtained feedback from the fisherfolk on how the new system being developed for self employed persons could be improved.

Shopping for Seafood

When buying seafood it is important to pay close attention to the overall cleanliness of the surroundings and condition of the fish. Only buy fish that is properly iced. Fish should be displayed on a thick bed of fresh ice that is melting and preferably in a case or under some type of cover. Fish should be arranged with the bellies down so that the melting ice drains away from the fish, thus reducing the chances of spoilage.





Fish should not be sold or purchased under these conditions



Fish properly iced and displayed for sale



Notes on Selecting Fresh Fish

- Fish should smell fresh and mild, not fishy or sour.
- The pupils of the fish's eyes should be black and the cornea clear and convex.
- Whole fish should be firm and should spring back when pressed.
- The gills should be bright red and free of slime.

Freshness Counts

It is important to look for freshness when choosing seafood. In some species (e.g. Bonito), if the catch has been left out in the sun or is improperly iced, toxins known as scombrotoxin, or histamines, can develop. Eating spoiled fish that have high levels of these toxins can cause serious illness.

Selecting frozen fish

Frozen seafood can spoil if the fish thaws during transport and is left at warm temperatures for too long. To help ensure that the frozen fish you're buying is safe follow these guidelines:

- Don't buy frozen seafood if its package is open, torn, or crushed on the edges.
- Avoid packages that are positioned above the "frost line" or at the top of the freezer case in the store's freezer.
- If the package cover is transparent, look for signs of frost or ice crystals. These could mean the fish has been stored a long time or thawed and refrozen - in which case, choose another package.
- Fish fillets should have no discoloration and should not appear dry or mushy in any areas.

All About AQUACULTURE



Aquaculture is a general term used to describe the farming of freshwater and saltwater plants and animals under controlled conditions. Aquaculture has been reported to be in existence since 2500 BC when Chinese farmers corralled carp in artificial lakes formed from the flood waters of rivers that had overflowed their banks. Their broods were later fed using nymphs and silkworm faeces, while the fish themselves were eaten as a source of protein.

The practice of aquaculture gained prevalence in Europe during the middle ages, since fish were scarce and thus expensive. Today aquaculture systems are very popular. In 2003, the total world production from fisheries was 132.2 million tonnes of which aquaculture contributed 41.9 million tonnes or about 31% of the total. The growth of worldwide aquaculture has been very rapid (> 10% per year for most species) while the contribution from wild fisheries has been essentially flat for the last decade. In 2005, 70% of the world's aquaculture production came from China.

The Seafood Industry Development Company is partnering with the Institute of Marine Affairs (IMA) to develop an intensive re-circulating tank culture system for Tilapia. The system will be developed as a demonstration system and will allow potential investors the opportunity to access technical expertise and "hands on" knowledge in the implementation of such systems. The system will be monitored in the first year to collect data on the cost /benefit aspects of the project. The feasibility of technology transfer and the applicability of this system to other high value commercially important species will also be assessed.

Tank culture of tilapia is a good alternative to pond or cage culture if the economics are favorable and sufficient water or land is not available. Tilapia grow well at high densities in the confinement of tanks when good water quality is maintained. This is accomplished by aeration and frequent or continuous water exchange to renew dissolved oxygen (DO) supplies and remove wastes. Culture systems that discard water after use are called flow through systems while those that filter and recycle water are referred to as re-circulating systems.



Intensive tank culture offers several advantages over pond culture. High fish density in tanks disrupts breeding behavior and allows male and female tilapia to be grown together to marketable size. In ponds, mixed sex populations breed so much that parents and offspring compete for food and become stunted. Tanks allow the fish culturist to easily manage stocks and to exert a relatively high degree of environmental control over parameters (e.g., water temperature, DO, pH, waste) that can be adjusted for maximum yields.



With tanks, feeding and harvesting operations require much less time and labor compared to ponds. Small tank volumes make it practical and economical to treat diseases with therapeutic chemicals dissolved in the culture water. Intensive tank culture can produce very high yields on small parcels of land.

Tank culture also has some disadvantages. Since tilapia have limited access to natural foods in tanks, they must be fed a complete diet containing vitamins and minerals. The cost of feed, land, security and the pumping of water and aeration increases production costs. The filtration technology of re-circulating systems can be fairly complex and expensive and requires constant and close attention. Any tank culture system that relies on continuous aeration or water pumping is at risk of mechanical or electrical failure and major fish mortality. Backup systems are essential.

Information used in this article was taken from an article entitled "Tank Culture of Tilapia" by James E. Rakocy, Director and Research Professor of Aquaculture, University of the Virgin Islands, Agricultural Experiment Station, RR2, Box 10,000, St. Croix, U.S. Virgin Islands

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