



# JICA COOPERATION IN BELIZE

**Mauro Gongora**

**Fisheries Officer**

**Belize Fisheries Department**

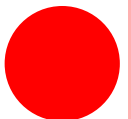
**Port of Spain, Trinidad and Tobago. December 4, 2014.**

# REPORT ON THE EVALUATION OF JICA FISHERIES PROJECTS IN BELIZE

Belize Fisheries Department held a workshop:  
“Evaluation of JICA Fisheries Projects in Belize  
and Future Collaboration Initiatives”

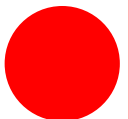
M. Gongora, Coordinator of the Capture Fisheries  
Unit presented a synopsis of the JICA funded  
projects and collaborations in Belize.

CRFM Training Room in Belize City. October 28,  
2014.



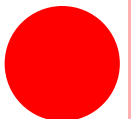
# PROJECTS

- Workshop on Capture Fishery Technology and Fishing Gear Development in 2006. This involved field testing of the deep water fishing gear showing possibilities of development of a Deep slope fishery and diamondback squid in Belize (24 participants)
- Study on formulation of Master Plan on Sustainable Use of Fisheries Resources for Coastal Community Development in the Caribbean. 2009
- JICA/CRFM Project initiated in August, 2010 being implemented by IC Net Ltd in collaboration with the CRFM and the Belize Fisheries Department.
- At least 6 Fisheries Officers have participated in the Integrated Inshore Fisheries Management, Coastal Fisheries Management Course and Aquaculture Training Course in Japan in 2012, 2013 and 2014.
- Pilot project developed – Belize was selected for the implementation of the ‘Low Cost Input Small-scale Aquaculture’ in 2010 and 2011.



## PROJECTS CONT.

- Important Tilapia hatchery facility under construction in Central Farm, Cayo District.
- At least 2 tilapia hatchery staff received training in Japan recently.
- Freshwater fish farming (Tilapia) now under the Ministry of Agriculture.

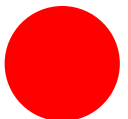




Project for the Promotion of Sustainable Marine Fisheries Resource Utilization with headquarters in Trinidad and Tobago.

Executed through the Regional Technical Cooperation Promotion Program - a Government of Trinidad and Tobago and the Japan International Cooperation Agency (JICA) to improve the sustainable marine fisheries resources utilization in the Caribbean Region

Capture Fishery Technology and Fishing Gear Development Workshop  
Belize City. Feb.14 - 17, 2006.





Construction of vertical long-line fishing gear



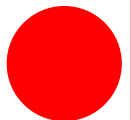
Successful deep slope fishing in Turneffe Islands Atoll, Belize.

Catch rate estimated at 65% and is considered highly adequate for use in Belizean waters. The most abundant (70%) fish specie: *Lutjanus purpureus* (2-4 lbs) . Other species captured included: *Lutjanus vivanus* and *Epinephelus striatus*

Squid fishing gear provided by JICA but species is not found in Belize.

## PROJECT - Study on formulation of Master Plan on Sustainable Use of Fisheries Resources for Coastal Community Development in the Caribbean

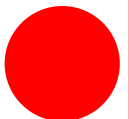
- Pilot projects developed – Belize was selected for the implementation of the ‘Low Cost Input Small-scale Aquaculture’
- JICA/CRFM Project initiated in August, 2010 and implemented by IC Net Ltd in collaboration with the CRFM and the Belize Fisheries Department.






# CONCLUSION

- Shrimp Feed is the most expensive feed and as expected has the best growth rates, and best FCR's.
- RB had the best survival rate and the 3<sup>rd</sup> best FCR in Phase II. FRB has the lowest total feed cost and 4<sup>th</sup> best FCR. However growth rates of RB and FRB are low. Growth for FRB in Phase II for Pond 7 is related to stocking size. Need to evaluate data and determine biomass gained index.
- 50:50 SF:FRB, showed the 2<sup>nd</sup> best growth rate, 2<sup>nd</sup> best FRC and a 50% survival rate in Phase II.
- Physical and chemical parameters in ponds and potential bird predation might have contributed in low survivals, especially during Phase I.





# **SARTENEJA FISHING COMMUNITY PROJECT**

- **Sarteneja Aquaculture Development Association is comprised of fishermen.**
  - **Project partially funded by the EU under the ‘Small and medium enterprises development in Northern Belize’.**
  - **Six grow-out circular HDPE tanks to be used for intermediate culture.**
  - **Fish stocked in June, 2011.**
  - **Fermented rice bran is being applied along with Tilapia Feed (50%:50%) in two tanks.**
  - **JICA assisted farmers with husbandry equipment.**
  - **Experiment is on-going.**
- 

Japanese International Corporation Agency, in collaboration with the  
Caribbean Regional Fisheries Mechanism and the Belize Fisheries Department of the  
Ministry of Agriculture & Fisheries.

**Pilot Project:**

Implementation of Alternative Feeds in Low Input Small Scale Aquaculture

**Site:**

Small Scale Tilapia Farm in Sarteneja, Corozal District, Belize

CRFM and JICA Fisheries Development study: Formulation of Master Plan on Sustainable Use  
of Fisheries Resources for Coastal Community Development  
in the Caribbean



Caribbean Regional Fisheries  
Mechanism







SMALL SCALE ENTERPRISE DEVELOPMENT IN AGRICULTURE AND  
TOURISM FOR THE GRANDE MALE AND COROZAL RURAL COMMUNITIES

Government of Maldives      European Union      La Souterraine & Soler Projects  
Seychelles Aquaculture Association for Development      Tilapia Production Project

The European Union and the Government of Maldives are not responsible for the use of the Tilapia stock in agriculture and tourism.



# Ministry of Agriculture, Fisheries and Cooperatives

## Tilapia Training Workshop

Belize Fisheries Department



# PROPOSAL FOR FUTURE COLLABORATION

- Assistance to further develop deep slope fishery development (potentially can develop into a US\$100 million fishery by 2015).
- Support upgrade of current fish processing facilities (fishermen cooperatives) for export market.
- Marine Aquaculture
  - Grouper and mullet (roe harvesting) farming
  - Mangrove Oyster farming
  - Mullet harvesting of roe - abundant along estuarine areas in Belize
- Study for potential markets for undeveloped fisheries
- Regional fishermen exchange program including provision of additional training and fishing gear, equipment and supplies.



## SOME RECOMMENDATIONS

- Project continuity is important
- Projects lifespan are too short and project proposal process is lengthy
- Need for better implementation of JICA projects
- JICA Projects could perhaps consider hiring local consultants to assist in project implementation





A photograph of a sunset over a body of water. The sun is a bright, glowing orb on the left side of the frame, casting a long, shimmering reflection across the water's surface. In the background, a series of vertical poles connected by a thin wire or fence line stretches across the horizon. A small, dark boat is visible on the water to the right of the center. The foreground is dark and silhouetted, showing some vegetation and a small structure on the left. The sky is a pale, hazy blue, and the overall mood is peaceful and contemplative.

**THANK YOU**