Oceans Economy and Trade Strategies (OETS Project)

National Stakeholder Consultation - BARBADOS

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AQUACULTURE
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• **Aquaculture** is the farming of aquatic organisms, such as fish, molluscs, crustaceans and aquatic plants (Adapted from FAO, 1998).
Sector Analysis

- No mariculture
- Limited inland aquaculture production
Historical Overview

Attempts before 2000

• an inland government pilot tilapia farming project
• a small-scale freshwater culture carried out by private individuals
• rearing of dolphinfish, both imported and attempting to use captured local dolphins to spawn
• rearing of red drum using imported cultured eggs from the island of Martinique.
• Fisheries Division to culture seamoss (Gracilaria spp.), which was imported from St. Lucia.
Inland Aquaculture

• An Aquaculture Pilot Project: The Greenland experimental fish farm was set-up by the Fisheries Division with support from USAID in the early 80’s, to rear the Nile tilapia, *Oreochromis niloticus*.

• Since 2000, inland aquaculture has been slightly more successful with tilapia being reared from 2006 - 2015 at an inland location which has also unfortunately ceased due to the owner having to give back the land.
Coastal aquaculture & mariculture

• Experimental cultivation of seamoss was initially started by the Fisheries Division in 1989 with a local strain of the seamoss being cultured using floating rafts on the West Coast.

• Conset Bay on the East coast was identified as a feasible location for cultivation of sea moss.
Sector Trends

- FAO started producing statistics on Barbados inland freshwater aquaculture in 2006 with the production of two species, red tilapia (first introduced in the 1980’s) and red claw crayfish which supplied the local market.
- In the period 2006-2016, aquaculture production has increased at an annual average rate of 29%.
- (Reported) production increased from 2 tonnes in 2006 to 26 tonnes in 2016, with Red Tilapia accounting for the vast majority of it (25 tonnes) (Figure 1).
- In the same year, the sector generated revenues amounting to 256’000 USD.
Figure 1: Aquaculture Production in Barbados between 2006 – 2016
Employment

• The primary aquaculture producing farm operating in the island employs 2 people.
• However, there are many small commercial aquaponics set ups and backyard producers, approximately 15 small commercial aquaponics who sell to local market and 50 backyard producers.
Challenges to expansion of sector

• Limited availability of physical resources such as land & coastal space, freshwater and soil suitability

• Competition for limited space particularly from tourism related activities
Recommendations

• Development of a soft regulatory framework for aquaculture activities
• Updated and detailed study to determine feasibility for both inland aquaculture and mariculture of selected species
• A strengthened data collection framework and system
Recommendations

• Development and implementation of pilot projects
• Capacity building at various levels across a range of stakeholder groups
• Increasing investment in innovation
• Use of alternative energy sources such as wind, hydro and solar for operations;
• Further development of aquaponics systems which have seen a greater uptake especially in backyard systems as well as in schools.
Discussion