***Promoting Regional Trade and Agri-Business***

***Development in the Caribbean: Study Linking Fisheries to Tourism-Related Markets***

***Grenada Case Study***

***(Final Draft)***

Prepared by: James Finlay

Westerhall, St. David, Grenada

Email address: [Jamesfinlay1234@gmail.com](mailto:Jamesfinlay1234@gmail.com)

Phone: 473443 5220/ 473 404 9823

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# *Terms of Reference*

A case study examining linkages between fisheries and tourism-related markets in the context of promoting regional trade and agri-business development in the Caribbean while accommodating the regional context that would highlight: food supply, food security and fish production as contributor to both; a current and future contribution from the marine sector; the imperative of import substitution through opportunities provided in the tourism-fisheries related markets; scope for catalyzing enhanced sustainable development through strategic linkages between tourism and fisheries, and; opportunities to provide for impacting development in coastal communities through creation of economic opportunities, reduction of both the food import bill and foreign exchange outflows.

This study is aimed at filling a data gaps in information regarding in fish and fishery products for the tourism industry in the Caribbean ACP States by documenting success stories on business models linking fisheries and tourism-related markets and innovative partnerships.

The documentation of these successful Caribbean experiences will serve to enrich the exchange of knowledge amongst actors and contribute positively to economic growth and sustainable livelihoods through the promotion of trade between the agri-food and tourism sectors in the region.

*General Objective*

1. The general objective of the study is to document successful business relationships between fish producers and fish processing businesses on the one hand, and tourism industry enterprises in the Caribbean on the other hand, in support of economic diversification, value addition, sustainable regional trade and employment creation.

*Specific Objectives are to:*

1. Identifying cases of linking fishing and tourism industries and analyze key drivers of success and key limitations.
2. Identify good practices and the key innovations in building “win-win” market relationships amongst fishermen and fish-farmers, processors and entrepreneurs with the hotel/ restaurant/ foodservice sector at national and regional levels and which increase local sourcing and value addition.
3. Suggest key institutional and policy bottlenecks that need to be addressed in order to upscale benefits for agribusiness (fisheries and aquaculture) and tourism sectors.

*Tasks of the Consultants:*

1. Identify and develop study on successful case of trade linkage between fish producers and processors with buyers in the tourism-related markets which can be up-scaled or replicated, and document lessons learned and policy implications.
2. The case study should highlight market access and gains for the stakeholders, innovative product development, branding and marketing strategies, organization of the sector and PPPs.
3. Review existing financing mechanisms and identify relevant agencies (both regional and international) which provide financing support for fisheries trade linkages and provide recommendations on the financing models that are appropriate within the Caribbean context (for example, for small-scale providers, groups and associations and large-scale producers and fish processors).
4. A total of 4 case studies will be prepared, one by each of 4 consultants, documenting the situation in 4 different CARIFORUM States. The reports are to be prepared in keeping with the format and specifications provided by the CRFM Secretariat.

*The Approach Taken for This Study*

Firstly, a characterization of the fisheries with its current linkage to the tourism sector in terms of the utilization of fisheries ecosystems goods and services will be made. On the other hand a set of briefs regarding market-related engagements between fisheries and tourism for innovative trade relations will be recorded.

Secondly, an identification of opportunities that might catalyze enhanced sustainable development with respect to trade relations between the two sectors of the Grenada economy will be made.

# **Part A**

# *Characteristics of the Grenada Fisheries Sector*

*Introduction:*

Regional Trade and agribusiness development in the context of linkages between fishers and tourism in the Caribbean would have to treat fisheries goods and services as more than mere supply of fish products traded within the tourism industry. It must also treat fisheries as a supplier of marine ecosystems products and services such as coastal sightseeing, sports fishing and snorkel and SCUBA dive services. And furthermore, this study should recognize that even as Grenada has been an importer of a variety of fish products over the years it is now a significant net exporter of processed fresh fish, in terms of both quantity and value. Notably there is a vibrant extra-regional export trade in fresh tuna and tuna-like species. The following are the more important characteristics driving trade relations between fishers and tourism in Grenada.

*I. A highly multispecies fisheries*

1. This is a highly multispecies fisheriesis dominated by oceanic pelagic species. Production (fresh weight) given as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Year 2009** | | **Year 2010** | | **Year 2011** | |
|  | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** |
| Oceanic Pelagics | 1.5m | 19.7m | 1.7m | 22.5m | 1.7m | 23.8m |
| Coastal Pelagics | 0.6m | 3.6m | 0.2m | 2.1m | 0.2m | 2.1m |
| Demersals | 0.5m | 6.4m | 0.5m | 6.6m | 0.3m | 5.4m |
| Shell Fish | 0.03m | 0.6m | 0.02m | 0.5m | 0.04m | 0.6m |
| **Total** | **2.6m** | **30.5m** | **2.5m** | **31.7m** | **2.3m** | **31.9m** |

**Total Fish Production 2012-2014**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Year 2012** | | **Year 2013** | | **Year 2014** | |
|  | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** |
| Oceanic Pelagics | 1.7m | 27.1m | 2.1m | 30.4m | 2.2m | 29.8m |
| Coastal Pelagics | 0.2m | 1.7m | 0.1m | 1.4m | 0.2m | 1.8m |
| Demersals | 0.4m | 5.6m | 0.4m | 5.6m | 0.4m | 5.8m |
| Shell Fish | 0.06m | 1.4m | 0.06m | 1.2m | 0.06m | 1.3m |
| **Total** | **2.3m** | **35.6m** | **2.7m** | **38.6m** | **2.9m** | **38.7m** |

Source: Fisheries Division, Grenada; m: million

1. The two most preferred pelagic species are:

* Yellow-fin Tuna, predominantly oriented to supply an export fresh-fish market.
* Mahi – Mahi a first choice for supply to the local tourism market.
* Some demersal (rock fish) species such as Snapper and Grouper types that are attractive to the tourist market.
* Shellfish species such as Lobsters and Conch exclusively attracting the tourist market.

1. Lobsters and Conch production is predominantly provided to the tourism market and as main supply, not only for local tourism food services providers (hotels and restaurants) nevertheless a regional market. These two species notably brand the local tourism cuisine. The other species such as Snappers, Grouper types, Sword Fish, King Fish, Barracuda, Crabs, Imported Shrimps, Squid, Oysters, Imported Salmon, etc., play a part.

*II. A Distinct Species Preference Exist*

The rankings of species most in demand and supply for the tourism market as determined from the responses of various subsectors of suppliers and purchasers are given as:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Demand/ Supply Subsectors** | **SPECIES RANKING** | | | | | | | | | |  |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **Respondents engaged for information** |
| *Hotels* | M-Mahi  S-Fish | Lobsters | R-Snapper | Conch | Oysters | Squid | Crab | Imported Salmon | I  Shrimps | Grouper | 4 |
| *Restaurants* | M-Mahi | S-Fish | YF Tuna | Snapper | K-Fish | Barracuda  Salmon | Lobster | Conch |  |  | 4 |
| *Fish Vendors at Markets* | M-Mahi | Snapper | Grouper Types | YF Tuna | K-Fish |  |  |  |  |  | 15 |
| *Scuba Diver-Suppliers* | Conch | Lobster | Red Fish | Sea moss |  |  |  |  |  |  | 5 |
| *Commercial Fish Processors* | YF Tuna | M-Mahi  S-Fish | Marlin | Conch | Lobster | Snapper | K-Fish |  |  |  | 3 |
| *Fish Importers* | Herrings | Alewives | Saithe | Pollack | Haddock | Hake | Salmon | Cod | Trout |  | 2 |
| *Processed Fish Shippers* | M-Mahi | Conch | Lobsters | Snappers |  |  |  |  |  |  | 2 |

*III. Fish Imports Important to Market Supply*

1. Imported fish supplies are predominated by the species: Herrings, Alewives, Saithe, Pollock, Haddock and Hake, sourced from Canada, Norway and the USA. These imports provide security of supply to the tourist services food providers and also to the general public. Limited quantities of Salmon, Cod, Snappers, Lobsters, Shrimps and Oysters are also imported to substitute for a number of seasonal or other shortages in local-fish supply. The most notable *imports* their sources, quantities in dressed-weight and value (ECD) are given as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Main Source of Imports** | **Year 2009** | | **Year 2010** | | **Year 2011** | |
|  | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** |
| Canada | 1,498,143 | 157,930 | 1,501,548 | 171,007 | 1,216,662 | 89,748 |
| Norway | 2,800,018 | 205,211 | 2,862,922 | 159,122 | 2,684,754 | 160,618 |
| USA | 62,564 | 6,334 | 50,856 | 3,206 | 23,396 | 1,649 |
| *Te* from main sources (% of *te*.) | - | 369,475  (94%) | - | 333,325  (73%) | - | 252,015  (92%) |
| **Overall Total Imports** | **4,647,270** | **392,020**  **(100%)** | **5,176,355** | **456,302**  **(100%)** | **4,176,758** | **273,144**  **(100%)** |

**Fish Imports; Sources, Quantities and Value (Grenada)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Main Source of Imports** | **Year 2012** | | **Year 2013** | | **Year 2014** | |
|  | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** |
| Canada (1) | 1,888,736  1.9m | 186,209  0.2m | 2,274,405  2.3m | 235,898  0.2m | 4,389,803  4.4m | 36,504  0.4m |
| Norway (3) | 143,768  0.14m | 4,793  0.005m | 432,393  0.4m | 25,881  0.03m | 994,998  1.0m | 78,374  0.08m |
| USA (2) | 1,224,312  1.2m | 113,446  0.1m | 934,341  0.9m | 115,78  0.1m | 1,180,341  1.2m | 101,844  0.1m |
| *% Contribution by Main Sources* | 59% |  | 83% |  | 89% |  |
| **Overall Total Imports** | **5,558,569**  **5.6m** | **588,866**  **0.6m** | **4,384,481**  **4.4m** | **458,581**  **05.m** | **7,359,463**  **7.4m** | **635,787**  **0.6m** |

*IV. Temporary Shortages in Supply Compensated For*

1. Tourism oriented species face short-term shortages for several reasons, among them being:

* Choice species that are subject to close season and include: Lobsters, Sea Eggs.
* Choice species that are subject to natural seasonal abundance and include King Fishes.
* Choice species are “switched from” by fishers who find that fishing oceanic pelagics yield better value per days fishing effort when compared with fishing species such as Snappers and Grouper types that are weather and current constrained.

Because of the exposure of tourism (food supply) service-providers to short-term shortages, such services providers purchase secure supplies of imported fish preparations that are known to their tourist clients.

*V. Fresh Fish Export Market as Most Significant Earner of Net Foreign Exchange*

1. The export of domestic fresh, chilled, frozen and processed fish preparations is a significant part of the local fish industry and a key foreign exchange earner. Canada and USA are the main destinations for export; with other destinations such as Barbados, St. Martin and others. The notable destinations, quantities in fresh weight and value (ECD) are given as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Year 2009** | | **Year 2010** | | **Year 2011** | |
|  | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** |
| Canada | 5,568,847 | 286,518 | 6,686,930 | 321,056 | 5,644,457 | 233,962 |
| USA | 5,311,234 | 236,120 | 8,225,533 | 357,916 | 7,792,602 | 289,253 |
| Others |  |  |  |  |  |  |
| **Overall Total Exports** | **10,915,173** | **524,206** | **14,989,165** | **682,521** | **14,364,731** | **586,503** |

**Fish Exports: Destination, Quantities and Value (Grenada)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Exports to all destinations** | **Year 2012** | | **Year 2013** | | **Year 2014** | |
|  | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** | **EC$ Val.** | **Kg.** |
| Canada |  |  |  |  |  |  |
| USA |  |  |  |  |  |  |
| Others |  |  |  |  |  |  |
| **Total** | **17,039,583**  **(17.0m)** | **626,552**  **(0.6m)** | **23,430,454**  **(23.4m)** | **861,432**  **(0.7m)** | **25,191,852**  **(25.2m)** | **943,072**  **(0.9m)** |

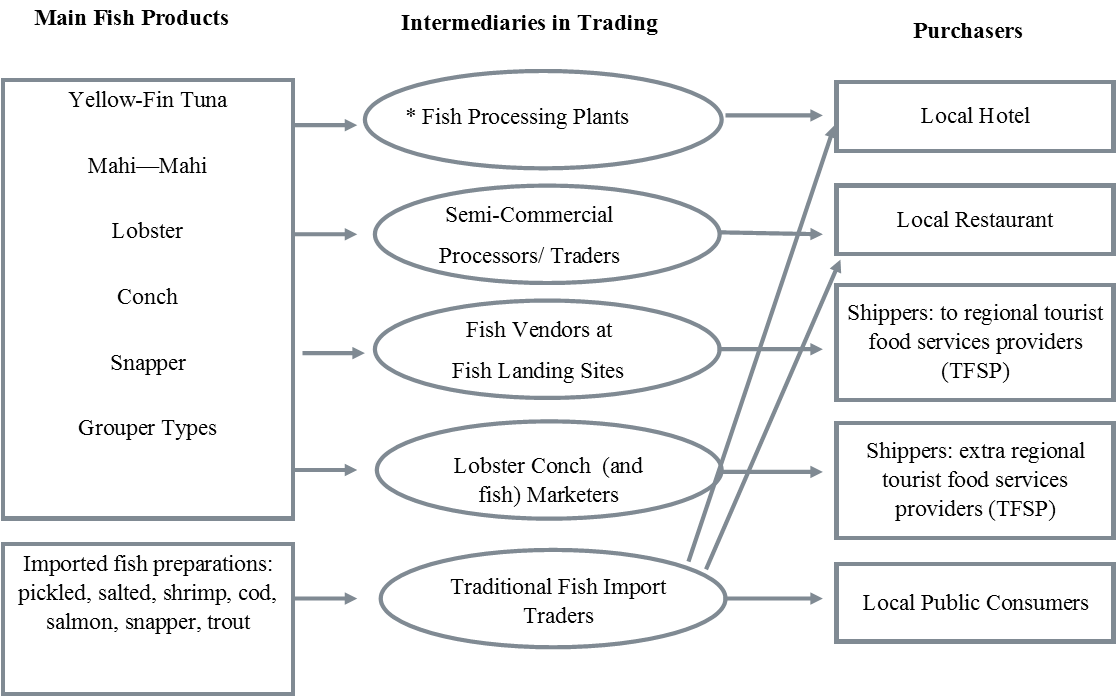
Export quantities are mainly Yellow Fin Tuna

See Figure ­1 for an overview of the local fish trade.

*VI. Tourism Services Providers as Important Factor in Tourism-Fisheries Trading*

The marine fisheries ecosystems assets provide goods and services being traded by tourism services providers.

*Figure 1. Grenada Fish Trading Overview*



Agents/buyers in the French Depts. Of Martinique and Guadeloupe

Demersal Fish production from the Grenadine shelf: Carriacou and Petite Martinique

Inter-island Trading vessels buying supply of fish from small fishing vessels.

**Key**: \* Main export traders in fish (as principal business)

ST – Significant Trading, MT – Minor Trading, VST – Very Significant Trading

# *Summary of Key Findings of the Study*

1. *Pelagic* species dominate fish catches in a wide-range *multispecies* fishery that provides options for a variety of *economic opportunities* within the fishery:

* *Upscale Fishing Vessels* purchase of weekly supplies of: fuel, ice, food, fishing equipment, fishermen services, vessel maintenance services etc.
* *Fish Processing Plant* weekly purchases of the fresh fish multi-day purchase price for fish landed, sales of processed fish to local restaurants, hotels and consumers; and with export sale as main activity.
* *Small Fishing Vessels* purchases of daily supplies of fuel, ice, food, fishing equipment, repair and maintenance services etc.
* *Fish Vendors* at fish centers providing opportunities for purchases of fresh fish from fishers (small scale and upscale).
* *Subsistence Fishers* providing opportunity for formal and informal trade in fish in exchange for other goods and services at the village level.
* *Small Scale Commercial* fishers and vendors trading fresh fish with small scale fish exporters, restaurants etc.
* *Fisheries-based Marine Services-Providers* trading their services with tourists.
* *Coastal (Sightseeing) Tour Operators:* coupling snorkeling with sightseeing.

1. Although fish importation is a very significant contributor to the security of food supply for both local consumers and for tourists, yet a vibrant *export market exceeds imports* in both quantity and value.
2. *Free trade* in fish products (imports and exports) is a key policy of Government: local fish prices have been completely deregulated for more than 20 years and Government is no longer a participant in fish trading.
3. The *private sector,* whether commercial business or small suppliers and purchasers is now the only participant determining supply and demand for products or services traded in fisheries-tourism.
4. Significant *informal* and *formal “contracts”* in the trading relationships are identifiable; smaller scale trading is associated more with informal contracts (arrangements) while the more upscale traders such as processing plants or trading boats and multi-day fishing vessels associate more with more formal contracts.
5. A significant set of small-scale *processors* act also as suppliers of fish products to both a local tourism market and an export trade market. This condition invites risks for quality and safety of products and identifies the need for enhanced quality assurance standards.
6. Marine-fisheries resources now provide significant opportunity for *tourism services-providers* to earn livelihoods. Dive sites, sightseeing and surface tours are now important factors in the trade in the tourism products. They need to be regulated but by non-coercive and collaborative mechanisms.
7. Hitherto traders meet as *individual buyers and sellers* for trading goods and services. However, a need has been recognized for creating a forum for suppliers and purchasers to have competitive and open engagements in the form of a fish food festival.

*Response:* Based on the above findings a number of cases are identified in the tourism-fisheries trading environment where opportunities might be taken to enhance or catalyze innovations that would contribute to sustainable development involving both sectors in focus. Notably in the Grenada case, the opportunities identified do not cite individual entrepreneurship as much as the institutional and stakeholder-oriented initiatives considered to provide current avenues for sustainable development. The following are the key areas that might be responded to.

*Case Studies*

The following cases 1 to 7 are considered examples of key exemplary fisheries-tourism and agribusiness trade relationships as now exist and expected to be used as key avenues for enhanced economic opportunities in the future. It is through avenues 1 to 7 that economic opportunities are expected to expand. And it is through avenue 8 (Fisheries Management and Administration of Public Policy regarding Fisheries and Tourism) that economic activity would be facilitated.

# *Case #1*

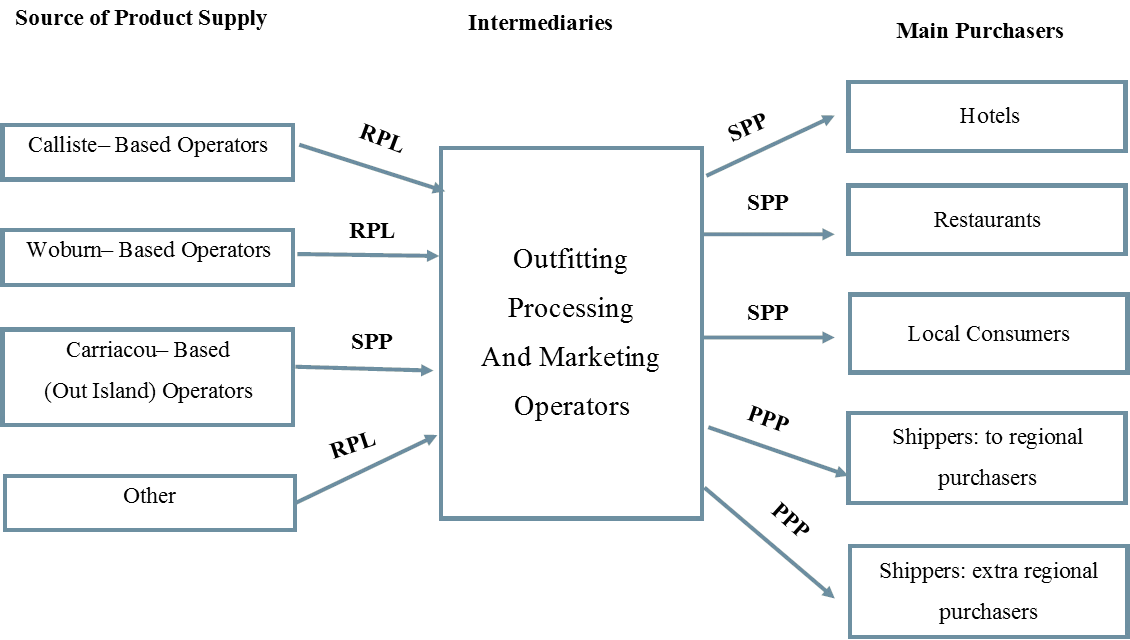
*A Commercial/ Semi-Commercial Scuba-Diver Supplier System*

*The Setting:*

Historically, a “bare wind” diver community specializing in reef stocks such as Conch, Lobster, Sea Eggs, Sea Weed, Rock Fishes etc.; now a SCUBA diver community supplying fish products to a local tourism-related market but also to a regional and extra-regional market through various agents. Centers of fishers’ operations include: Calliste, Woburn, Carriacou, Sauteurs and Grenville. This community has become a harvesting, processing and trade network with dive tank-filling services provided within the community. There is also an integrated product-processing and marketing network centered in the south where notably, divers residing in the south and operating on the Grenada Grenadine Shelf route a regular supply of product, mainly Conch, through agents on the Grenada main-island. This trading represents an integrated community and integrated operations especially with regard to ensuring safety while harvesting.

*Existing Policy Environment:*

Maintenance of a policy supporting fishers with opportunity for subsidized inputs and opportunity for free trade in fish products.



**Key:** Raw Product, Live (RPL); Semi- Processed Product (SPP); Processed Packaged Product (PPP).Table 1 – Product Flows Based in South Grenada

# *Case #2*

*Dive Services-Providers/ Surface Tours Services-Providers as Suppliers*

*The Setting:*

This is an important commercial segment of the tourism services industry that utilizes fisheries ecosystems goods and services. Resource utilization is, in this case, non-consumptive. This segment of the industry includes dive-services providers (dive shops) each equipped with SCUBA and snorkel gear, training services guided underwater tours and in the majority of cases each dive-shop is attached to a major hotel or tourist facility, by arrangement. All utilize a number of popular dive sites as natural or artificial reefs. A second group of tourism services providers is the surface tour operators that provide snorkeling services as part of their sightseeing product. And yet another operation that utilizes fishery resources includes sport-fishing operations that mostly target pelagic stocks.

*Existing Policy Environment:*

Most tourism services providers are non-consumptive users of resources and are potentially the main beneficiaries of an emerging local area enclosure regime in the form of MPAs now being actively promoted as a matter of public policy. Also as a matter of the same public policy, efforts are being made to transition persons, once utilizing near-shore coastal stocks and habitats for consumptive (food) use, toward non-consumptive tourism-related trade occupations.

*Case #3*

*The Fish Vendors Based at Fish Landing Centres*

*The Setting:*

The career (full time) fish vendor at fish landing sites typically is a trader who interfaces between the fishing vessel and consumers and special-demand purchasers of batches of fish products. Each such vendor could have a running “contract” with 2 – 5 fishing vessels for daily purchases, either as owner of 2 – 4 fishing vessels or as part owner or as mere guarantee purchaser of landed catches.

The career fish vendor also maintains a current account with the fish centre for supply of ice to their stalls or to their chiller and/ or freezer facilities. Career vendors also make regular purchases from visiting vessels coming from outside the fish landing district.

Records show variable quantities of through-put of these established (career) vendors. Two of the main fish landing vendor markets are represented as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Market** | **Ex-Vessel Purchases** | | **Category of Weekly Through Put** | **No. of Vendors** | **% Sales to Tourism-services providers (TSP)** |
| **Fishing Boats** | **Others** |
| Melville Street: |  | | | | |
| 2 Brothers | 50% | 50% | 3000-4000lbs | 1 | 40% |
| Women | 70-75% | 25-30% | 500-1500lbs | 5 | 20-25% |
| Women | 100% | 0% | 200-400lbs | 6 | 0-15% |
| Women | 100% | 0% | 150-300lbs | 3 | 0-5% |
| **Total** |  |  |  | **15** |  |
| Grenville: |  | | | | |
| 1 Man | 100% | 0% | 500-2100lbs | 1 | >10% |
| 1 Man | 100% | 0% | 600-1800lbs | 1 | >10% |
| Husband/Wife | 100% | 0% | 300-1200lbs | 1 | ~5% |
| 2 Men | 100% | 0% | 300-1200lbs | 2 | <5% |
| 2 Men | 100% | 0% | 250-1200lbs | 2 | <5% |
| 1 Woman | 100% | 0% | 150-300lbs | 1 | <5% |
| **Total** |  |  |  | **8** |  |

Gouyave – Data Unavailable

Victoria – Data Unavailable

Sauteurs – Data Unavailable

Carriacou – Data Unavailable

These figures represent the normal, not high season, through-put. As a result of the facilities available to vendors, provided by the Government authorities, they are uniquely positioned to control fishing effort, especially at the times when fishers cost per days fishing begins to get closest to the gain from the days fishing. Vendors are often the financiers of basic costs such as fuel and supplies for the days fishing.

*Existing Policy Environment:*

The price-fixing and through-put policy for the use of Government facilities at fish landing sites could more adversely impact fishers than vendors. The price-fixing regime administered by Government, within the charges they make on vendors using cool-room, freezer facilities and ice-sale at fish centres, seem to benefit vendors much more than fishers who catch the fish. A review of the system is recommended.

# *Case #4*

*The Lobster, Conch, Snapper or Grouper Purchaser-Supplier*

*The Setting:*

This includes specialists who cater for one or several of these species for export or for the occasional opportunistic local sales. Such suppliers take advantage of or create scale in operations while maintaining regional and extra-regional supply links. They also take advantage of the special properties of these species that stow well at freezer or chill conditions. These species also have the advantage of avoiding rapid deterioration of product soon after catch since such fish are often landed live or dead for only a short period before landing.

Although regional market conditions allow for mainly export (outflows) of products, however, there are also opportunities for import of these species when local supplies are short e.g. at close season.

*Existing Policy Environment*

Maintenance of a policy for facilitation of export opportunity for fish products that have a competitive advantage on the regional and extra-regional market. At the same time maintain a policy of facilitation (absence of restrictions) of imports of tourist-chosen fish products, in order to maintain the tourist product year-round.

# *Case #5*

*The Tourism Services Providers (Hotel/ Restaurants)*

*The Setting:*

Hotels and Restaurants are the key tourist services food providers for tourists. The fish product as key brand of food product expected by tourist visiting Caribbean Islands, is sourced from both local and imported supplies. As a result, hotels and restaurants would reflect the most discriminating tastes of tourists in terms of both quantity and variety of product. And whenever local fish product suppliers are unable to provide for quality and variety, imports are substituted.

The scale of preferences of fish products determined from a survey is given as (the demand side):

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Demand By** | **SPECIES RANKING** | | | | | | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| *Hotels* | M-Mahi  S-Fish | Lobsters | R-Snapper | Conch | Oysters/  Scallops | Squid | Crab | Imported Salmon |  |  |
| *Restaurants* | M-Mahi | S-Fish | YF Tuna | Snapper | K-Fish | Barracuda  Salmon | Lobster | Conch | I-Shrimps | Grouper |

Table 7 Species preferences reflected at Hotels and Restaurants

*Marketing and Supply Issues Cited By Hotels and Restaurants (Structured and Semi-Structured Interviews)*

1. Mahi-Mahi is highly marketable and in high demand for reasons such as: species recognition, choice texture, stow well, non-fishy smell, year round supply, good taste.
2. There is the option to buy fish supply directly or indirectly from fishers.
3. There are sometimes issues of bad quality due to improper transportation and stowage of the fish.
4. The market prefers fillets and loins.
5. The market would prefer the delivery of lobsters as tails only.
6. There is the disadvantage of incompletely cleaned conch; the market is changing however.
7. Choice snapper is often scarce.
8. Choice species are very expensive in the market.
9. A regular size of lobster specimen would greatly favour the marketing at “the table”.
10. Both lobsters and conch supplies require a reliable supplier (agent).
11. Availability of imported product options for security of supply when local supplies are short.

*Existing Policy Environment:*

Maintenance of a free market for import and export of fish products in order to guarantee the *security of supply* of choice products within the tourist industry.

# *Case #6*

*The Fish Harvester as Supplier*

*The Setting:*

All fishers (harvesters) must maintain a linkage with the market through a purchaser and the relationship between fisher and purchaser is either a virtual or formal “contract”. The more formal contracts will represent the relationship between upscale fisher (vessel) and purchaser while the informal contracts will be represented in the smaller-scale fisher-purchaser relationships. The following generally characterizes the fisher/ harvester versus purchaser relations where the vessels are ranked by scale.

Table – Characteristics of Fisher versus Purchaser Relationships

|  |  |  |
| --- | --- | --- |
| **Category of Fish Harvester** | **Related Purchaser** | **Main Characteristics of the Relationship** |
| I. *Multiday fishing vessel* equipped with longline technology.   * 30-45ft LOA * 4-5 Crew * Complete with ice and stowage * 4-5 days; 3-4 nights fishing trip * Fish seller | Fish processing plant with main focus on export of quality fresh fish.   * Supplied ice and other outfitting services and goods. * Fish purchaser of catches of multiday fishing vessels | Purchaser guarantees a stable price based on quality of product supplied.  Harvester is guaranteed access to a market for landed products.  An account is established between purchaser and seller for supply of ice; and other outfitting supplies so as to optimize the value of products being traded.  A more tightly contracted informal or formal trading relationship. |
| II*. Single day fishing vessel* equipped with longline technology.   * 25-30ft, LOA * 2-3 Crew * Fish seller equipped with stock of ice and with fish stowage * Fish seller | Fish processing plant with main focus on export of quality fresh fish.   * Alternative: career vendors with stowage at fish centre or with private stowage facilities. * Fish purchasers | Similar relationships as for the multiday longline fishing vessels except that single day vessels might target species other than tunas and would have market such species with fish vendors. |
| III. Single day fishing vessel equipped with multiple types of gear/ technology   * 18-25ft, LOA * 2 Crews * Fish Seller | Fish vendors but not excluding fish processing plants.   * Purchasers buy for supplying to local consumers or for supply to regional market for purchaser. | Single day vessels maintain informal contractual relationships with vendors for the marketing of fish.  Many vendors fully or partly own single day vessels and are notable sources of cash flow for the vessels they trade with. |
| IV. Single day fishing vessels with fishing gear for opting between trolling for pelagics or for targeting bottom reef fish. | Fish vendors supply to a local consumer market.   * Fish purchaser | As above |
| V. Fish, Crab and bottom long lining fishing vessel | Trading vessels purchasing small vessel catches over a period of time.   * “At sea” purchases by trading vessels. | A purchaser buys pick-pick portions from small vessels to build a full cargo for export. |

# *Case #7*

*Fish Importers (Commercial)*

*The Setting:*

Commercial imports of processed fish preparations from USA, Canada and Europe have always been provider of food security in Grenada. The most popular imports have been: Cod fish (now largely unavailable), Herrings, Alewives, Saithe, Haddock, Pollock and Hake. These fish types are consumed mostly by the local consumers, nevertheless they are part of the diet of tourists. Such fish types are a regular part of the commerce of a number of local businesses. A minor but significant portion of the fish import market includes Cod, Salmon, Snappers, Groupers, Trout, Mahi-Mahi and others; they satisfy for temporary shortages of supply.

*Existing Policy Environment:*

Maintenance of a policy of free trade in fish products in order to assure food security and also to assure security of supply of fish products as part of the overall tourism product in Grenada.

# *Case #8* (Focal Area)

*The Existing Fisheries Management Model*

*The Setting:*

Grenada maintains a fisheries management unit called Fisheries Division, as part of Government’s law-based sustainable development strategy for promotion and regulation of the utilization of all fishery resources. The fisheries division maintains linkages with each and every important segment of the fishery to include each cited as cases #1 to #7. The scope of responsibilities of the unit range from the maintenance of fisheries ecosystems health to the regulation of quality controls for traded fish products.

*Existing Policy Environment:*

The parent fisheries law and its subsidiary legislation are used as principal *policy instrument* for the promotion and regulation of the fishery. Government is not a participant in trading of goods and services; and all fish prices and deregulated.

# *Recommendations (See Cases 1 to 8)*

1. Since SCUBA has provided fishermen with considerable ability to access stocks of conch, lobster, sea eggs, seaweed and rockfish or reefs, it is critical that the Fisheries in collaboration with the Tourism Authorities maintain a collaborative effort for the conservation of the stocks. A transition from consumptive to non-consumptive use of reef stocks is highly recommended also.
2. Currently considerable investments are being made in utilizing marine stocks; habitat and sea space for commercial activities such as dive-services, sports fishing and coastal tours. Collaborative management by both Fisheries Authorities and the providers of marine ecosystems services is recommended.
3. Fish quality standards at fish centres are improving; however, there is need for greater emphasis on HACCP Standards to be maintained by the fish vendors.
4. Greater vigilance with respect to the application of HACCP Standards is recommended for exporters of fish products.
5. Hotels and Restaurants should ensure that the suppliers of fresh fish are HACCP Certified, especially when these suppliers are small scale processors.
6. There is a challenge within the community of fishers and fish processors (especially Tuna for export), to maintain a high grade optimum quality of fish for export. It is recommended that the Fisheries Authorities ensure that fish quality is maintained for a “Grenada Brand.”
7. It is critical that imports of fish are always maintained in order to ensure suppliers for the tourism industry.
8. It is recommended that the Fisheries Authorities always maintain collaborative management links with all sectors in the Fisheries-Tourism Business Community.

# ***Part B***

# *Tourism-Fisheries Trade-Related Opportunities*

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| ***1.0 Processing-packaging on-board upscale ocean fishing vessels*** |
| *1.1 Description of the* *opportunity:* A community of multi-day upper-scale fishing vessels harvesting a stock of Tuna and Tuna-like species exists. The supply of Yellow-Fin Tuna drives a vibrant export trade. Three on-hand fish processing plants do the final processing of headless and gutted pieces of whole fish already partially prepared before landing by fishing vessels. Ensuring best quality of the fish product immediately after catching is most essential for securing top price in the export market of final destination. There is therefore opportunity for on-board processing with packages so as to improve quality assurance and value-added for fishing vessels. The fresh Tuna export is mainly consumed by tourists in east coast US. |
| *1.2 Potential for the opportunity:* Already there is historical experience, in Grenada, with attempts at on-board quality-assurance even with small scale 18-25ft (LOA) vessels and where uptake of adaptations were shown to be very effective. Therefore building on current relationships between upper-scale fishing vessels and fish processing plants as services providers and source of market, simple adaptive technologies could be adopted so as operationally achieve the objectives of prepackaging of fresh fish on-board fishing vessels. |
| *1.3 Resource Sustainability Issues:* No significant adverse implications for the standing fish stocks are identifiable. |
| *1.4 Business relations issues:* The trade relations between fishing vessels and processing plants can be negotiated so that processing plants can act the role of suppliers of material support while fishing vessels cane be enabled to deliver the enhanced fish product. Both actual and virtual contracts exist between the two. |
| *1.5 Policy Support Issues:* This type of innovation would require the support of an adaptive Government administered quality assurance/ inspection regime at critical control points. |
| *1.6 Development Issues:* Such an innovation requires public policy support for training etc., within the community of stakeholders. |
| ***2.0 Ensuring Optimal Fish Quality Assurance Towards A National Product Branding.*** |
| *2.1 Description of the opportunity:* A seven point grading system is now being used to rank the quality of fresh Tuna export. Routine texts could place pieces of whole tuna from first to low grade between catching and delivery to the consumer. As a result, because of the policy and practices of handlers, the average optimal quality could vary from first to low grade. With an overall policy of maximizing overall average rate of quality assurance the optimal quality rating for the exporters could maximize on the high end, while the opposite could be the case if the standards of exporters target less than a maximum average quality rating. |
| *2.2 Potential for Opportunity:* Fish exporters in collaboration with the Government as quality assurance, compliance control authority could agree to adopt policies and practices for controlling the optimal standards that export grade tuna must meet. Such policies and practices were adopted and met in the past. |
| *2.3Resource Sustainability Issues:* No significant adverse impact on the fish stock due to such a policy and practice is identifiable. |
| *2.4 Business Relations Issues:* If the Government authorities were to adopt public policy (in collaboration with fish exports) and with the aim of implementing a regime to maximize overall average rate of quality assurance then it is expected that exporters will adjust their business plans accordingly. |
| *2.5 Policy Support Issue:* Maintenance if a policy of maximization of overall average rate of quality assurance will call for an enforcement that is non-coercive and collaborative. |
| *2.6 Development Issues:* Stakeholder negotiations training and verification that is periodic. |
| ***3.0 HACCP Certification for Minor Fish Suppliers*** |
| *3.1 Description of Opportunity:* Fish processing plants and trading boats would be HACCP Certified but minor fish traders supplying the tourism market generally would not. Findings show that such minor suppliers maintain constant contracts with tourism-related purchasers and exporters and therefore such suppliers should be certified for their compliance control standards. |
| *3.2 Potential for Opportunity:* Health regulations require food handlers to be certified for health/safety compliance controls. No difficulty is expected in adopting more effective compliance standards |
| *3.3 Resource Sustainability Issues:* No significant adverse implications in enforcing compliance control standards, is identifiable. |
| *3.4 Business Relations Issues:* The requirement of certification will generate compliance, raise quality standards, profile the traders and generally improve prices offered by purchasers. |
| *3.5 Policy Support Issues:* Application of existing or enhanced policy instruments will improve compliance with high standards of quality and all purchases of fish products to be more confident in the product delivered by supplier. |
| *3.6 Development Issues:* Certification requires collaboration among vested interests and would also require training for fish suppliers. Market promotion is highly recommended. |
| ***4.0 Promotion of Quality Fish Trading Through the Fish Food Festival*** |
| *4.1 Description of the Opportunity:* A single forum where communities of fish suppliers and fish purchasers could meet in the context of a fish food festival could expose certified fish handlers/ suppliers and certified purchasers and where quality products would be displayed; each to promote and market their vested interest. |
| *4.2 Potential for Opportunity:* Currently there is only limited exposure of purchasers to suppliers except in the case of the outlets of fish processing plants that have already established a profile. It is mostly individuals that maintain contracts as suppliers and purchasers. The fish food festival could provide opportunity for competitive exposure of buyers and sellers in the context of the single location. |
| *4.3 Resource Sustainability Issues:* No significant adverse impact on resources is identifiable. |
| *4.4 Business Relations Issues:* Exposure of potential buyers and sellers in the competitive environment and with options for future business contracts could catalyze economic activity. |
| *4.5 Policy Support Issues:* The fish food festival will provide opportunity for the authorities administering policy instruments to demonstrate the support available to suppliers and purchaser. |
| *4.6 Development Issues:* An initiative that will generate collaboration among stakeholders will need to be planned and implemented for the purpose. |
| ***5.0 Transitioning Livelihood Opportunities for Tourism-Fisheries Service Providers*** |
| *5.1 Description of the Opportunity:* Utilization of marine fisheries stocks habitat and sea space is an expanding part of the tourism product. Key aspects of the tourism product is nautical tourism, underwater sightseeing at dive sites and sport fishing; all considered as tourism services providers and utilizers of fisheries ecosystem goods and services. A current and incipient policy for both CZM and MPAs attempts to optimize benefits from the tourism-fisheries trading opportunities. Such initiatives result in restrictions for the utilization of resources by traditional close-to-shore people and in favor of greater access for commercial tourism services providers. This occupational displacement calls for initiatives to compensate displaced persons by transitioning such displaced persons into commercial activities as new economy. Such displaced persons could be trained to join the tourism services providers for diving, fishing and sightseeing. |
| *5.2 Potential for the Opportunity:* Implementation of a current MPA program has highlighted the need for compensation of traditional users with opportunities for alternative livelihoods and this need to ensure alternative employment is now part of the overall MPA policy. |
| *5.3 Resource Sustainability Issues:* The MPA and CZM program has two of its main objectives: (i) to ensure conservation of marine stocks and habitat, and also; (ii) to provide opportunity to utilize marine resources for economic benefits for the citizens. |
| *5.4 Business Relations Issues:* Persons being introduced to new economy after previous involvement in traditional economy requires training and opportunity to engage with experienced participants in the new economy. |
| *5.5 Policy Support Issues:* A MPA policy that promotes alternative use of traditional stocks, habitat and sea space while recognizing both traditional and new-economy livelihood opportunity is a sustainable plan of action. |
| *5.6 Development Issues:* Transitioning livelihoods from traditional to new economy requires training and opportunity for business engagements between stakeholders. |
| ***6.0 Community-based Management of Dive-sites*** |
| *6.1 Description of the Opportunity:* Commercial dive-services providers are an important part of the tourism-fisheries trade. Presently there is limited controls for participants in the trade, unclear criteria for participation and lack of a system to monitor use-pressure placed on dive sites. There is therefore opportunity for creation and implementation of a mechanism for monitor control and surveillance (MSC) of the activities of dive services providers so as to ensure sustainability of the dive services industry. |
| *6.2 The Potential for Opportunity:* Lack of capability in Government to independently monitor the current state of the dive sites; willingness of dive site users to engage in joint MCS. |
| *6.3 Resource Sustainability Issues:* Individual interests of dive services operators could over-ride community interests resulting in over-use of the resource base. |
| *6.4 Business Relations Issues:* High operations costs for individual dive services providers result in less than sufficient profit margins. |
| *6.5 Policy Support Issues:* The application of top-down policy instruments is not currently practical; collaborative management is the preferred option for this type of trading. |
| *6.6 Development Issues:* Development of a workable regime for sustainable use of marine fisheries-services options require consultations between Government authorities and commercial stakeholders. |

*Summary of Recommendations Based on Opportunities Identified*

1. A greater role for multiday fishing in the “front-end” processing and packaging of fresh fish for the export market.
2. Raise the average quality of export grade fresh fish by adopting measures that would ensure that both fishers and processors guarantee that the highest proportion of the exported fish is represented by 1st and 2nd grade specimens.
3. Train and certify all small-scale fish suppliers using HACCP quality control standards; and adopt a policy-based mechanism for enforcement of compliance control measures.
4. Use an annual Fish-Food Festival as a means of exposing buyers and sellers of Fisheries-Tourism goods and services to each other, in open forum.
5. Support a local policy-based strategy now in train that would expand opportunity for linkages of fisheries and tourism in the context of the *green* and *blue* economy; utilization of marine ecosystems goods and services.
6. Promote community-based management for dive-sites on reefs now increasingly used as key eco-tourism product.

# *References*

Government of Grenada Central Statistics Office, Ministry of Finance

Government of Grenada Fish Data Records, Ministry of Agriculture

# *Appendices*

*Fisheries Linkages with Tourism (Dive-Services, Sport Fishing, Day Tours)*

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| **Dive Services Providers (Name)** | **Location** | **Linked to** |
| #1 Scuba Tech – Frederica | Lance Aux Epines | Calabash Hotel |
| #2 Aquanauts – Seupel | True Blue, Spice Island Beach Resort | True Blue Hotel,  Spice Island Inn |
| #3 Eco Dive – Christine Curry | Grand Anse,  Lagoon Road | Coyaba Hotel  Camper Nicholson |
| #4 Dive Grenada | Grand Anse | Flamboyant Hotel |
| #5 Devotion to Ocean “D20” | Point Salines | Rex Grenadian |
| #6 Native Spirit Scuba – Blackman | Grand Anse | Radisson Hotel |
| #7 Sandals Dive Shop | Point Salines | Sandals Resort (La Source) |
| #8 Arawak Divers | Hillsborough, Carriacou | Hillsborough |
| #9 Lumba Dive | Harvey Vale, Carriacou | Harvey Vale |
| #10 D for Diving | Harvey Vale, Carriacou | Harvey Vale |

*Fisheries Linkages to Tourism (Snorkeling, Sightseeing, Day Tours)*

*[Alternative to Landside “sites of interest”]*

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| **Tour Services/ Snorkeling (Name)** | **Location** | **Linked to** |
| 1. Carib Cats | Belmont |  |
| 2. First Impression – Morsden Cumberbatch | Lagoon Road  Allamanda Hotel | Allamanda Hotel |
| 3. Shadow Fax | Port Louis | Camper Nicholson |
| 4. Sea Ferries – Susan Howard Clark | Yacht Club |  |
| 5. Sun Adventures | Lagoon Road  Port Louis | Camper Nicholson  Port Louis |
| 6. Rhum Runner | Carenage | Renwick/Thompson |