



Stakeholder Maps of the Conch Value Chains of Grenada, Saint Lucia and Saint Vincent and the Grenadines



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UNCTAD-OECS Blue BioTrade Project
in cooperation with CITES

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UNCTAD/DITC/TED/INF/2021/4

Contents

| | |
|--|-----------|
| Acknowledgements | iv |
| Note | iv |
| Acronyms and abbreviations | v |
| Executive summary | vi |
| 1. INTRODUCTION | 1 |
| 1.1. Objectives..... | 1 |
| 1.2. Methodology | 1 |
| 2. OVERVIEW OF CONCH TRADE GLOBALLY | 2 |
| 3. REGIONAL PERSPECTIVE ON CONCH TRADE | 4 |
| 4. SAINT LUCIA STAKEHOLDER MAPPING | 6 |
| 4.1. Harvest phases | 6 |
| 4.1.1. Harvest method..... | 6 |
| 4.2. Post-harvest phase..... | 8 |
| 4.2.1. Large retailers / processors..... | 9 |
| 4.2.2. Importance of Martinique to Saint Lucia's conch trade | 10 |
| 4.3. Institutional actors and national regulations | 10 |
| 4.4. Opportunities and challenges | 10 |
| 5. GRENADA STAKEHOLDER MAPPING | 13 |
| 5.1. Harvest phase | 13 |
| 5.2. Post-harvest phase..... | 14 |
| 5.3. Institutional actors and national regulations..... | 15 |
| 5.4. Opportunities and challenges | 17 |
| 6. SAINT VINCENT AND THE GRENADINES STAKEHOLDER MAPPING | 18 |
| 6.1. Overview | 18 |
| 6.2. Harvest..... | 19 |
| 6.3. Post-harvest phase..... | 21 |
| 6.4. Institutional actors and national regulations..... | 21 |
| 6.5. Opportunities and challenges..... | 22 |
| References | 23 |
| Endnotes | 24 |

Figures

| | | |
|------------|---|----|
| Figure 1. | Queen conch range in the Caribbean Sea | 2 |
| Figure 2. | Map of beneficiary countries..... | 5 |
| Figure 3. | Location of queen conch stock in Saint Lucia | 7 |
| Figure 4. | Steps in conch processing and conch meat grades | 9 |
| Figure 5. | Stakeholder map of Saint Lucia’s conch value chain..... | 11 |
| Figure 6. | Lobster fishing and conch fishing both use scuba techniques | 12 |
| Figure 7. | Conch basket used to collect conch on seafloor and transport them to boat/surface in Petite Martinique... | 13 |
| Figure 8. | Partially cleaned conch landed in Grenada. | 14 |
| Figure 9. | ”Pounding” or tenderisation of conch the final stage of processing prior to sale..... | 14 |
| Figure 10. | Public notice related to conch regulations distributed by Grenada Fisheries Division..... | 15 |
| Figure 11. | Stakeholder map of the Grenadian queen conch value chain..... | 16 |
| Figure 12. | Map of Saint Vincent and the Grenadines..... | 18 |
| Figure 13. | Stakeholder map of the Saint Vincent and the Grenadines queen conch value chain..... | 20 |

Tables

| | | |
|----------|---|---|
| Table 1. | Conch meat grades seen in the Caribbean conch industry | 2 |
| Table 2. | Products derived from the queen conch and average retail prices | 3 |
| Table 3. | Production of queen conch in CRFM economies in 2017 (tonnes) | 4 |
| Table 4. | Division of income from conch landings in Saint Lucia | 8 |
| Table 5. | Average annual landings of queen conch in Saint Lucia (2015–2020) | 8 |

Acknowledgements

“Seizing the trade and business potential of Blue BioTrade products for promoting sustainable livelihoods and conservation of marine biodiversity in selected Organisation of Eastern Caribbean States (OECS) Countries” (Blue BioTrade Project) is funded by the OECS and the European Union under the Regional Integration Through Growth Harmonisation And Technology (RIGHT) project and implemented by the United Nations Conference on Trade and Development (UNCTAD), the OECS and the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

UNCTAD, OECS and CITES would like to thank the contribution by Alexander Girvan, consultant and project coordinator of the Blue BioTrade project. This document has benefited from comments and inputs from David Vivas Eugui, Claudia Contreras, Maria Durleva and Rafe Dent (UNCTAD), Mauro Gongora (UNCTAD-OECS-CITES consultant and Fisheries Officer (Belize Fisheries Department), Lench Fevrier (OECS) and Karen Gaynor (CITES).



**Co-funded by
the European Union**

7 September 2021

Note

Reference to “dollar” and “\$” indicate United States dollars, unless otherwise stated. Reference to “EC\$” indicates the Eastern Caribbean dollar.

Use of a dash (–) between dates representing years, e.g., 2015–2018, signifies the full period involved, including the initial and final years.

Reference to meters is represented by “m”, centimetres by “cm”, and hectares by “ha”. Reference to kilograms is represented by “kg”, and pounds by “lbs”. Reference to nautical miles is represented by “NM”.

To reflect the closest estimate for data, decimals and percentages are rounded off. Number in money is rounded to the nearest dollar, unless otherwise stated. Decimals and percentages in this document do not necessarily add to totals because of rounding.

Acronyms and abbreviations

| | |
|--------|---|
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| CRFM | Caribbean Regional Fisheries Mechanism |
| FAO | Food and Agriculture Organization of the United Nations |
| HACCAP | Hazard Analysis and Critical Control Points |
| OECS | Organisation of Eastern Caribbean States |
| UNCTAD | United Nations Conference on Trade and Development |

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Executive summary

Queen conch is a highly appreciated seafood delicacy with important non-food uses, including therapeutical products and handicrafts. While global demand is booming, small-scale coastal producers in the Eastern Caribbean do not fully seize the opportunities offered by sustainable conch markets. In 2020, the United Nations Conference on Trade and Development (UNCTAD), the Organisation of Eastern Caribbean States (OECS) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) joined forces to design a pilot project to test the application of the revised UNCTAD BioTrade¹ Principles and Criteria (2020)² to the marine environment, focusing on the queen conch value chain in the countries of Grenada, Saint Lucia, and Saint Vincent and the Grenadines.

In the preparation of case studies on the queen conch value chains in beneficiary countries and working towards the development of a Blue BioTrade Action Plan for the OECS, UNCTAD has worked to produce a map of stakeholders in the queen conch value chain in the three participating countries and an initial scoping of opportunities and challenges that will be further explored to improve environmental and economic outcomes.

Some of the main findings of the stakeholder mapping activity are as follows:

Socio-economic findings

- **Production.** The combined production of queen conch meat by the participating project countries represented 15 per cent of the Caribbean Regional Fisheries Mechanism (CRFM) production volume in 2017.
- **Investment.** Since the \$4.6 million project for improvement of fishery equipment and machinery in Saint Vincent and the Grenadines, and the subsequent improved accesses to external markets through airport construction, the fishery has produced an additional \$8.3 million in production value when compared to pre -2017 baseline levels, demonstrating the potential returns to fisheries investment.
- **Adding value through market access.** Significant additional income could be earned in the industry through investments in regional traceability and direct access to high value export markets in the neighbouring island of Martinique.
- **Gender dynamics.** Men specialise in harvesting of queen conch and artisanal processing; both women and men are involved in formal processing operations and women are more represented in the sale of value-added conch products. All stages of the value chain require some specialisation and knowledge to maximise value.
- **Female participation.** Female participation is highest towards the end of the value chain, with women specialising in the preparation and sale of value-added conch products at fish fries, in the form of fritters, soups, grilled meat and sausages.
- **Power and equity.** Power, defined as the ability of a firm to exert influence over other actors in the value chain (Sturgeon, 2009), is primarily held by private fisheries centres in Saint Vincent and the Grenadines and by boat owners in other countries.

Socio-economic opportunities

- **Cost sharing to improve market access.** The costs of these investments, particularly in much needed stock assessments, could be shared across project countries. Due to the close geographic proximity of project countries and high costs associated with stock assessments, project countries in association with other queen conch producing OECS countries should seek to establish an OECS stock assessment unit to share costs.
- **Geographical proximate export markets.** Focusing on geographically proximate export markets, and local value-added goods would increase total income earned at all levels in this value chain significantly. Conch fishers serving the United States export market receive \$2.5-4 per lb while prices as high as \$8.5 per lb are paid in Martinique.
- **Reducing waste and adding value.** Commercializing by-products of conch processing represents an opportunity to increase income.
- **Conch meat trimmings.** Conch trimmings have demonstrated potential for value addition yet are not fully

utilised across the value chain. Best practice processing methods for conch sausages, burgers, stewing meat and other products should be identified and shared.

- **Conch operculum.** Caribbean conch operculum³ carries a price premium in east Asian markets yet is typically discarded during processing (with the exception being Union Island, which has exported opercula to Dubai, United Arab Emirates).
- **Conch shells.** The stockpiling of conch shells across the Grenadines presents both a challenge and an opportunity, as large volumes of shells may have eventual value as a natural construction material for coastal engineering.
- **Increasing processing efficiency.** Processing of conch involves up to six steps, namely: deshelling, removal of operculum, removal of visceral bag, removal of proboscis tips, filleting, and tenderisation. Efficiency could likely be increased through further specialisation in processing and introduction of mechanisation in certain steps.

Socio-economic challenges

- **Health cost of fishery.** Unsafe diving practices can have serious health impacts on divers in the fishery, resulting in paralysis, blindness and in extreme cases, death. The long term social and economic costs of these impacts is likely significant. Investment in health and safety practices would likely yield a positive social and economic return and contribute to the long-term economic sustainability of the fishery.
- **Lack of Hazard Analysis and Critical Control Points (HACCAP) certified facilities.** The lack of HACCAP certified processing facilities in Grenada and Saint Lucia present a challenge to maximizing value of conch production through export to high value markets.

Environmental findings

- **Limited reports landing of juvenile conch but monitoring mechanisms in need of strengthening.** Fishers and fisheries officers report limited to no fishing of juvenile conch (without flared lip). Additionally, fishers report that they do not harvest juvenile conch due to its low meat yield, which is positive for the fishery as juvenile conch should not be landed. However, with the removal of conch meat from the shell at sea, and limited at sea monitoring, the possibility of juvenile harvest exists. Further, the lack of a closed season for conch means that legislation against juvenile harvest may not be sufficient to prevent stock depletion.
- **Increased landings.** Conch landings have increased by 73 per cent from 2010–2020 in Saint Lucia and by 203 per cent in Saint Vincent and the Grenadines between 2017 and 2020. While fishers report conch availability in fishing grounds, this increase in fishing activity means the risk of localised stock depletion is real. Increased pressure on the fisheries resource due to the opening of fisheries centres should be closely monitored with stock assessments to ensure fisheries pressure is not unsustainable.
- **Interest in additional environmental measures to enhance sustainability.** Positively, fishers, private sector operators and fisheries divisions all report interest in the implementation of stock assessments and to establish closed seasons and scientific based catch limits to preserve the fishery.
- **COVID-19 effects on fishing activity.** The COVID-19 pandemic has reduced pressure on the fishery through the enactment of lockdowns preventing fishers from going to sea, as well as declines in demand due to slowdowns in tourism and entertainment activities. This reduction in activity may have a positive effect on stock, but the scale of this effect is yet to be determined.

Environmental opportunities

- **Establishment of a conch nursery for conch aquaculture.** Due to its central location amongst project countries and large amounts of suitable habitats, the cost effectiveness of establishing a conch nursery in Saint Vincent and the Grenadines should be further investigated. Sufficient demonstrated science of conch aquaculture exists in the region. Collaboration with research institutions should be further explored.

Environmental challenges

- **Habitat degradation.** Human-driven pollution from land-based sources is a significant threat to the ecology of OECS habitats and the livelihoods of conch fishers. Coastal development, water pollution, release of untreated sewage and siltation of coastal waterways due to run off, combined with increasing intensity and frequency of extreme events all place pressure on conch ecology. These factors also pose a threat to the

livelihoods of queen conch fishers who depend on the availability of the resource.

- **Enforcement of legislation.** The deshelling of conch at sea limits monitoring and enforcement of existing legislation.
- **Stock assessments.** Stock assessments for conch in OECS waters require significant resources and technical capacity that is currently lacking, this presents a challenge to effective biological management of the fishery and meeting important technical requirements to access export markets.
- **Meeting CITES requirements.** Conducting a stock assessment to produce a non-detriment finding report is critical to the environmental and economic survival of the fishery in Grenada. Meeting the Legal Acquisition Findings⁴ (LAF) and Non-Detriment Findings⁵ (NDF) requirements under CITES is necessary to be able to legally trade internationally, including between neighbouring countries in the region. Meeting these requirements pose a challenge to countries due to lack of resources to conduct necessary scientific research and issues of internal coordination.

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