

DRAFT

Five-Year Strategic Plan: Growing Aquaculture and Mariculture in the U.S. Virgin Islands

Version: October 16, 2024

## **Aquaculture Strategy for the Virgin Islands**

### **Who:**

The Virgin Islands Commission on Aquaculture and Mariculture, alongside local stakeholders and regulatory agencies.

### **What:**

Developing a sustainable aquaculture industry that serves both Virgin Islanders and external markets, focusing on enhancing local economies while addressing food security.

### **Current Values:**

- **Market Focus:** Acknowledging finite local markets, the strategy emphasizes building a robust aquaculture sector with a secondary focus on exports to ensure economic resilience.
- **Resource Management:** Emphasizing the dependence on small-shelf marine platforms, the initiative supports local industries by addressing insufficient wild fish stocks through fisheries management and sustainable farming practices.
- **Ecosystem Support:** Enhancing fish stocks via aquaculture not only restores ecosystems but also fosters innovation, research, and investment for a secure food future.
- **Economic Growth:** Aiming to reduce trade deficits in the seafood sector by promoting best practices in clean and safe aquaculture, ensuring food-safe handling and high-quality products and developing market infrastructure.

This approach leverages the interplay between wild and farmed fish stocks, fostering both local consumption and potential export opportunities while prioritizing sustainability and economic viability.

DRAFT

Five-Year Strategic Plan: Growing Aquaculture and Mariculture in the U.S. Virgin Islands

Version: October 16, 2024

Please see here a Five-Year Strategic Plan for Aquaculture and Mariculture in the Virgin Islands, incorporating the four goals:

## **Five-Year Strategic Plan for Aquaculture and Mariculture in the Virgin Islands**

### **Created by the Aquaculture Commission**

#### **Definitions**

(q) **“Virgin Islands Commission on Aquaculture and Mariculture”** means the commission that shall oversee aquaculture and mariculture in the U.S. Virgin Islands as authorized in Virgin Islands Act 6471.

(r) **“Virgin Islands Aquaculture Council”** refers to the body convened by the Virgin Islands Commission on Aquaculture and Mariculture. This commission shall sunset within 18 months of its inception per Virgin Islands Act 6471, and the Virgin Islands Aquaculture Council shall thereafter convene to govern aquaculture in the Virgin Islands per the bylaws created by the Virgin Islands Commission on Aquaculture and Mariculture.

(s) **“Virgin Islands 5-year Aquaculture and Mariculture Plan”** means the guiding document for aquaculture in the U.S. Virgin Islands pursuant to Virgin Islands Act 6471.

---

#### **Declaration of Policy**

The purpose of this chapter is to preserve, manage, and protect farmed fishery resources, to regulate aquaculture and mariculture, and to secure their development in all marine, estuarine, and freshwater within the jurisdiction of the U.S. Virgin Islands, **where applicable and environmentally sustainable.**

Through this plan, the U.S. Virgin Islands declares its intent to:

1. Enhance the growth of aquaculture and mariculture in the territory while protecting the environment and harvestable marine resources of the U.S. Virgin Islands.
  2. Expand upon the Department of Agriculture and the Department of Planning and Natural Resources’ duty to coordinate and assist in the development of aquaculture and mariculture.
  3. Establish a territory aquaculture and mariculture plan and provide a means of communication between the aquaculture industry and regulatory agencies, pursuant to Virgin Islands Act 6471.
-

## **Vision Statement**

An intentionally sustainable USVI aquaculture industry that expands access for Virgin Islanders to nutritious food products, jobs, and healthy working lands and waters.

## **Mission Statement**

Our five-year mission is to build physical and intellectual infrastructure development, to nurture a well-supported business environment with a stable, streamlined regulatory environment, a science extension service, and accepted scientific community standards guiding economically viable aquaculture markets, sustainable stocks, and innovative practices.

## **Goals and Objectives**

To help achieve our Vision and Mission for aquaculture development in the Territory, and to instill the Core Values, we have identified important strategic goals to address. For each goal, we identify the highest priority objectives for the next five years. We list actions that may assist with achieving each objective that supports the goal.

### **Goal 1: Manage Sustainably and Efficiently**

- **Objective:** Implement practices that ensure long-term sustainability and efficiency in aquaculture operations.
  - **Actions:**
    - Develop and enforce guidelines for resource management that minimize environmental impact and allow administrative fines to be levied
    - Create an ad hoc committee to the Council of enforcement and regulatory agencies to address issues related to efficient enforcement of existing regulations.
    - Develop a roadmap to a required aquaculture and mariculture permitting process within DPNR.
    - Promote sustainable aquaculture techniques that enhance ecosystem health including funding diversity.

### **Goal 2: Science for Sustainability**

- **Objective:** Utilize scientific research and data to inform sustainable practices in aquaculture.
  - **Actions:**
    - Collaborate with research institutions (UVI, Columbia University, University of Texas, NOAA) and agencies (ACOE) to gather data on species viability and environmental impacts with DPNR acting as the lead for technical guidance based on existing mandates in the VIC

- Support innovation through research grants for new aquaculture technologies, including developing a new government fund for research.
- The biggest immediate challenge is infrastructure and there is a need to support a cooperative research center.

### **Goal 3: Educate and Exchange Information**

- **Objective:** Foster a culture of learning and information sharing among stakeholders.
  - **Actions:**
    - Establish regular workshops and training sessions for local producers and stakeholders, including identifying key stakeholders, such as community organizations to understand existing partner potential and capacity therein.
    - Create an online platform for sharing best practices, research findings, and regulatory updates.

### **Goal 4: Support Economic Viability and Growth**

- **Objective:** Enhance the economic contributions of aquaculture to local and regional markets. Aquaculture needs to be for Virgin Islanders and external markets due to finite markets and the need for robust industry.
  - **Actions:**
    - Develop marketing strategies to promote local aquaculture products.
    - Support the establishment of cooperatives to increase market access and bargaining power for local producers.

### **Year 1: Assessment and Foundation**

- **Objective 1:** Conduct a comprehensive assessment of existing aquaculture and mariculture practices.
  - **Actions:**
    - Survey local producers and stakeholders to identify current practices and challenges with existing partners like the Caribbean ECC and Local Food and Farm Council.
    - Analyze environmental impacts and assess biodiversity, ensuring alignment with federal regulations (FDA, EPA, NMFS) and create a guidance document.
- **Objective 2:** Build stakeholder engagement and partnerships.
  - **Actions:**

- Organize workshops with local fishers, entrepreneurs, and environmental groups to foster collaboration.
  - Establish a multi-stakeholder advisory committee that includes representatives knowledgeable in federal compliance.
- **Objective 3:** Develop regulatory framework and guidelines.
  - **Actions:**
    - Review existing laws and regulations in consultation with federal agencies (USACE, NMFS, etc.).
    - Draft guidelines that incorporate sustainable practices aligned with the Clean Water Act and Magnuson-Stevens Act.

## **Year 2: Capacity Building and Research**

- **Objective 1:** Enhance technical knowledge and skills.
  - **Actions:**
    - Implement training programs for local producers focused on best practices and regulatory compliance.
    - Collaborate with universities and research institutions to develop a science extension service.
- **Objective 2:** Identify viable aquaculture species.
  - **Actions:**
    - Conduct feasibility studies on various species, ensuring compliance with the Endangered Species Act.
    - Evaluate market demand for potential species that contribute to food security and economic viability.
- **Objective 3:** Establish pilot projects.
  - **Actions:**
    - Launch pilot aquaculture farms that utilize sustainable practices and comply with federal licensing requirements.
    - Monitor and assess pilot outcomes to inform future expansion.

## **Year 3: Expansion and Marketing**

- **Objective 1:** Scale up successful pilot projects.
  - **Actions:**

- Develop a strategy for expanding successful farms while adhering to federal regulations.
  - Secure funding and investment for larger operations through grants and partnerships.
- **Objective 2:** Develop a marketing strategy.
  - **Actions:**
    - Create branding for local aquaculture products that emphasizes sustainability and nutritional value.
    - Promote products through local markets and tourism sectors, increasing access for Virgin Islanders.
- **Objective 3:** Enhance value chains.
  - **Actions:**
    - Identify and strengthen connections between producers, processors, and retailers, ensuring compliance with environmental regulations.
    - Develop cooperative structures to support local producers include in on-going trainings for farming industry.

#### **Year 4: Sustainability and Community Impact**

- **Objective 1:** Implement sustainable practices.
  - **Actions:**
    - Introduce eco-certification programs for local producers that reflect community standards and regulatory compliance.
    - Monitor environmental impacts and adapt practices to meet Clean Water Act requirements.
- **Objective 2:** Evaluate community impact.
  - **Actions:**
    - Assess economic benefits to local communities, with input from NMFS and USFWS regarding environmental and wildlife considerations.
    - Gather feedback from stakeholders to measure social impacts and community satisfaction.
- **Objective 3:** Foster innovation.
  - **Actions:**

- Encourage research into innovative aquaculture techniques and practices, ensuring alignment with federal laws.
- Support startups focused on technology and sustainability in aquaculture.

## **Year 5: Review and Future Planning**

- **Objective 1:** Conduct a comprehensive review of the five-year plan.
  - **Actions:**
    - Assess progress against goals and objectives, ensuring adherence to federal guidelines and community needs.
    - Gather feedback from stakeholders and community members to inform future directions.
- **Objective 2:** Identify new opportunities and challenges.
  - **Actions:**
    - Analyze market trends, emerging technologies, and potential impacts of climate change on aquaculture.
    - Prepare strategic responses to ensure the industry remains resilient and sustainable.
- **Objective 3:** Update and develop a new strategic plan.
  - **Actions:**
    - Draft a new five-year plan based on findings and evaluations, ensuring continued alignment with vision and mission.
    - Engage stakeholders in the planning process for continued collaboration and input.

## **Key Performance Indicators (KPIs)**

- Number of training sessions conducted and participants trained in compliance with federal regulations.
- Increase in local aquaculture production contributing to food security and economic viability.
- Number of new partnerships established with federal and local agencies.
- Sales growth of aquaculture products meeting all legal requirements.
- Community engagement metrics reflecting increased access to nutritious food products and jobs.

- **Budget and Funding**\*None of the work can be done without direct funding by the Legislature of the U.S. Virgin Islands.
  - Identify funding sources (government grants, private investors, international aid) that support sustainable aquaculture initiatives and include a 'Food, Energy, Water Systems Coordinator' budget request
  - Allocate budget for training, research, pilot projects, and marketing initiatives, ensuring alignment with federal guidelines.

Additional sources of funding may include non-profit for Local Food and Farm Council (501(c)3), legislature, and entity at UVI contracted for food production (Thorn Hill) beyond livestock, crops, etc.

## Conclusion

This strategic plan aims to cultivate a sustainable aquaculture and mariculture industry in the Virgin Islands, enhancing food security, economic growth, and community well-being, while maintaining the highest environmental quality standards possible. By ensuring compliance with federal regulations and fostering collaboration among stakeholders, the plan will facilitate a thriving, resilient aquaculture sector that benefits all Virgin Islanders. Regular assessments and community engagement will be critical to maintaining relevance and effectiveness in achieving our vision and mission.