Sustainable Fisheries and Aquaculture Training Course

Professional Development Training Course Outline

Category	Environmental Management and Conservation	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The global demand for seafood is at an all-time high, placing immense pressure on both wild fish stocks and aquatic ecosystems. This has created a critical need for a paradigm shift toward sustainable practices in the fisheries and aquaculture sectors Sustainable Fisheries and Aquaculture Training Course is designed to empower professionals, policymakers, and communities with the cutting-edge knowledge and practical skills required to navigate the complexities of this transition. Participants will explore the latest innovations in **Blue Economy**, **climate-smart aquaculture**, and **responsible fisheries management**, understanding how to balance economic growth with environmental stewardship and social equity. By adopting a holistic approach, this program directly addresses the urgent challenges of overfishing, habitat degradation, and climate change, fostering resilience and long-term viability in aquatic food systems.

Our comprehensive curriculum focuses on equipping participants with a deep understanding of modern, technology-driven solutions for sustainable seafood production. From the principles of **recirculating aquaculture systems (RAS)** and **precision aquaculture** to the implementation of **ecosystem-based management (EBM)**, this course provides a strong foundation for building a more secure and sustainable future. Through interactive sessions, real-world case studies, and hands-on exercises, attendees will gain actionable insights into developing resilient supply chains, ensuring food security, and contributing to the global movement for a healthier planet. This training is a vital step for anyone committed to safeguarding our oceans and freshwaters while meeting the world?ÇÖs growing nutritional needs.

Programme Curriculum

Sustainable Fisheries and Aquaculture Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. To understand the principles of the Blue Economy and its application in aquatic resource management.
2. To analyze the economic, social, and environmental pillars of sustainable aquaculture.
3. To apply ecosystem-based management (EBM) strategies to restore and conserve marine and freshwater habitats.
4. To implement climate-smart aquaculture techniques to mitigate risks and enhance resilience.
5. To utilize precision aquaculture and AIoT for real-time monitoring and data-driven decision-making.
6. To design and manage recirculating aquaculture systems (RAS) and other closed-loop technologies for resource efficiency.
7. To develop sustainable and alternative aquafeed formulations to reduce reliance on wild-caught fish.
8. To establish and enforce effective policies to combat Illegal, Unreported, and Unregulated (IUU) fishing.
9. To apply biodiversity conservation principles in fisheries and aquaculture operations.
10. To create viable aquaponics and integrated multi-trophic aquaculture (IMTA) models.
11. To develop sustainable seafood supply chains and market access strategies.
12. To understand the role of genomics and selective breeding in improving fish stock resilience.
13. To implement effective biosecurity protocols to prevent disease outbreaks and ensure fish welfare.

Organizational Benefits

- Develop in-house expertise in cutting-edge, sustainable practices, reducing reliance on external consultants.
- Ensure adherence to international regulations and gain a competitive edge by demonstrating a commitment to environmental stewardship and ethical production.
- Reduce costs and resource consumption through the adoption of innovative technologies like RAS and improved feed management.

- Implement robust biosecurity and climate resilience strategies to minimize the risk of disease, environmental damage, and economic losses.
- Unlock new markets and command premium prices by meeting the growing consumer demand for certified sustainable and responsibly sourced seafood.
- Foster a culture of innovation by equipping staff with the skills to adapt to changing environmental conditions and market dynamics.

Target Audience

1. Aquaculture Farmers and Operators
2. Fisheries Managers and Government Officials
3. Marine and Environmental Scientists
4. Conservation and NGO Professionals
5. Policymakers and Regulators
6. Agri-Finance Professionals and Investors
7. Small-scale Fishers and Community Leaders
8. Students and Researchers in Marine Science

Course Modules

Module 1: Foundations of Sustainable Aquatic Food Systems

- Principles of the Blue Economy and its contribution to global food security.
- Understanding the environmental, social, and economic pillars of sustainability.
- Overview of global trends and challenges in fisheries and aquaculture.
- The role of aquaculture in reducing pressure on wild fish stocks.
- Case Study: The Norwegian salmon industry's transition to sustainable practices.

Module 2: Ecosystem-Based Fisheries Management

- Assessing and managing fish stocks for maximum sustainable yield.
- Implementing regulations to combat overfishing and destructive practices.
- Strategies for reducing bycatch and protecting vulnerable species.
- Designing and establishing Marine Protected Areas (MPAs).
- Case Study: The successful rebuilding of the Alaskan pollock fishery through science-based management.

Module 3: Innovative Aquaculture Technologies

- Designing and operating Recirculating Aquaculture Systems (RAS).
- Principles of **precision aquaculture** using AIoT and sensor technology.
- Integrating aquaculture with hydroponics through aquaponics.
- Exploring integrated multi-trophic aquaculture (IMTA) for waste reduction.
- Case Study: A land-based RAS farm in the U.S. that achieved zero water discharge.

Module 4: Sustainable Feed and Nutrition

- Formulating sustainable and alternative aquafeeds (e.g., insect-based protein).
- Reducing dependency on fishmeal and fish oil.
- Optimizing feed conversion ratios (FCR) for economic and environmental efficiency.
- Managing feed for improved fish health and reduced water pollution.
- Case Study: The use of black soldier fly larvae as a sustainable protein source in tilapia farms in Africa.

Module 5: Biosecurity and Aquatic Animal Health

- Developing and implementing on-farm biosecurity protocols.
- Early detection and prevention of common aquatic diseases.
- Implementing vaccination and responsible use of antibiotics.
- Ensuring humane handling and transport for improved fish welfare.
- Case Study: The Chilean salmon industry's response to disease outbreaks through strict biosecurity measures.

Module 6: Climate-Smart and Resilient Practices

- Assessing the impacts of climate change on aquatic ecosystems.
- Developing adaptation and mitigation strategies for fisheries and farms.
- Techniques for managing water quality in a changing climate.
- Adopting energy-efficient and renewable energy solutions for operations.
- Case Study: Climate-adaptive aquaculture practices implemented in Southeast Asia to withstand extreme weather events.

Module 7: Policy, Governance, and Compliance

- Understanding national and international fisheries and aquaculture policies.
- The role of certification and eco-labeling (e.g., MSC, ASC).
- Strategies for combating IUU fishing and promoting traceability.
- Stakeholder engagement and community-based management.
- Case Study: The implementation of the European Union's Common Fisheries Policy (CFP) and its impact on regional stocks.

Module 8: Business Development and Value Chains

- Analyzing the economic viability of sustainable fisheries and aquaculture.
- Exploring market opportunities for certified sustainable seafood.
- Developing a robust and transparent supply chain from "farm to fork."
- Strategies for value-addition and product innovation.
- Case Study: The success of a community-based fishing cooperative in Japan through direct-to-consumer sales and brand building.

Training Methodology

This course employs a dynamic and interactive training methodology combining theory with practical application. The approach includes:

- Expert-Led Presentations.
- Interactive Workshops: Group activities and problem-solving exercises.
- Real-Life Case Studies.
- Practical Demonstrations.
- Peer-to-Peer Learning.
- Action Planning.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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