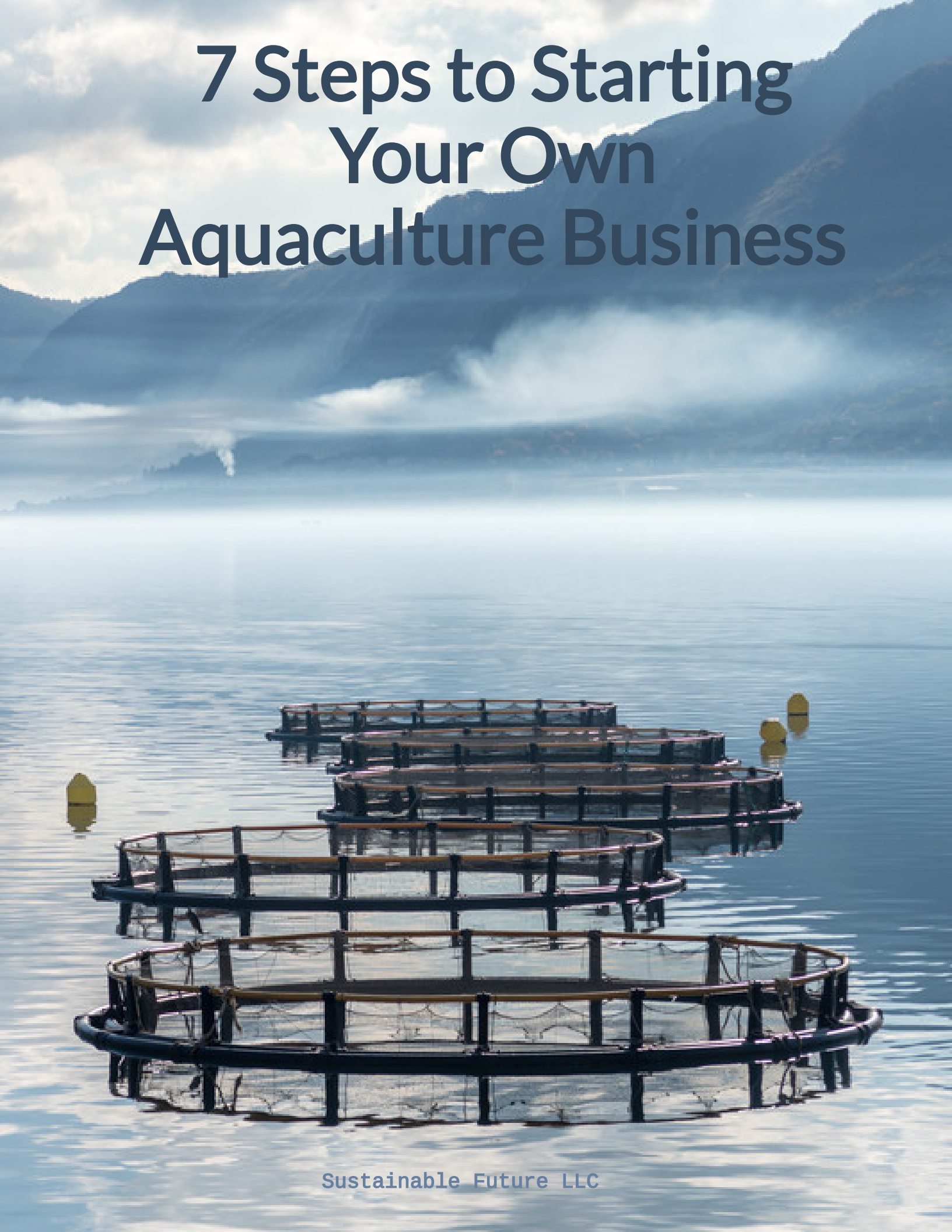
7 Steps to Starting Your Own Aquaculture Business



Sustainable Future LLC

As world population grows, there is an increasing need for sustainable, food sources. Aquaculture is a fast-growing sector of the food industry that is helping to meet this need. We hope you will find the information in this report helpful as you learn more about starting your own aquaculture business.

1. Determine Your Goals and Motivation

Before starting your business, you should evaluate your goals and motivation. There are many issues to consider, but keep in mind that aquaculture is farming and requires many of the same traits of the successful farmer. You need a strong work ethic, resourcefulness, patience, adaptability, and optimism.

As you envision your enterprise, you should draw upon your experience, interests, finances, resources, and ideally your passion.

- Are you planning a backyard enterprise, where you will produce food for your family and sell surplus directly to the consumer at your farm or at local farmers market?
- Are you interested in a small business where your produce is sold to restaurants, grocers, or seafood distributors in your local area?
- Are you looking to start a larger business where you will provide products not only to local markets but throughout the country or even for export?

Naturally, the size of your enterprise will influence the degree of planning required and the financial and personnel resources you will need.

Aerial view of a shrimp farm in Thailand

You will need to consider the hours of work (will you be part-time or full time), your family and finances, and the funding sources available for your business. All businesses have risks associated with them and there are inherent risks in aquaculture. Are you prepared to mitigate these risks and persevere as you face the inevitable challenges that come with running a business?

If you are starting on a small scale, you will need to handle many of the operational and business tasks yourself. This means being able to juggle multiple tasks including handyman, animal caretaker, marketer, and business manager. Hands-on skills are especially useful if you are building your own production facility, where you may need to construct a greenhouse or perform plumbing to connect tanks.

You will also need business management skills and the ability to market your product to consumers. When starting out, you can get assistance with some of these tasks using part-time contractors. Once your businesses is growing, you can hire more employees to help you expand.

It's important to spend some time evaluating your goals and motivation. Starting a successful aquaculture venture takes time and money. You will want to make sure you are fully committed to make your business a success.

2. Perform Research & Planning

Once you have a vision for your business and an understanding of your motivation, it's time to begin more detailed research and planning. Don't skip this step. Make sure you put in the time to sufficiently research and plan your venture. A detailed plan will provide the framework for a successful business. The information uncovered during the research and planning step will be useful when you create a business plan.

Some factors to consider as you start your research and planning:

Aquatic Species – will you be growing finfish, shellfish or aquatic plants?

You should carefully consider what type of aquatic species you would like to raise. Regardless of the size of the business you visualize, it is good practice to start small with a pilot project to develop confidence and experience raising the aquatic species that you will be farming.

Do you have experience cultivating your selected aquatic species or can you get experience before committing to a full-time venture? How will you get the brood stock or juveniles required for your business? Will you be setting up a hatchery for full life cycle production or will you be purchasing juveniles for grow out?

Is there a market for the aquatic species you will raise and how will you reach consumers? Can you sell your produce profitably?

Oysters from an aquaculture farm (Credit: NOAA)

Site – where are you going to grow the aquatic plants or animals?

Do you own a site for your aquafarm or do you need to purchase the site? Are you going to use a natural body of water, such as a pond, lake, or bay or will you be building a land-based aquaculture facility?

Regulations – what are the local regulations regarding the aquatic organisms you intend to grow?

Is it legal to raise the aquatic species in your location? What permits or licensing is required by government agencies?

Markets – what is your market and how will you get your products to consumers?

Have you thought about a brand for your products and what features you will emphasize when selling them? Will you be selling your products directly to consumers yourself, such as at a local farmers market, or will you require sales people or seafood brokers for wider distribution within your country or for export.

Resources – do you have a network of resources you can utilize to get advice, equipment, and supplies to help run your business?

Startup business advice is often available either free or low cost from local academic institutions, extension agents, non-profits, or industry trade associations. You should identify sources of equipment, supplies, and services that you will need to operate your business.

Financing – will you be able to self-fund your business or will you need to obtain financing from investors or banks?

Starting small minimizes your financial risk as you learn how to successfully cultivate an aquatic species. It also gives you a better understanding of the costs associated with scaling your operation to full commercial size. Having this type of information will give your business plan more credibility, especially if you are seeking funding from outside sources such as a bank or investors.

Production - what type of production system will you be using to raise your aquatic species?

The production system depends on the type of water body or water-holding facility where the aquatic species will be grown. For marine aquaculture this could be a variety of different options, including on the seabed (oysters, clams), in the water column (mussels, seaweed), or in net pens or sea cages (salmon, cobia). Freshwater aquaculture can involve cages, ponds, continuous flow, or recirculating water systems.

Your costs will be related to the initial investment needed to construct your production system and the ongoing operational costs.

Personnel – will you be doing all the work yourself or will you need to hire other people? How many people will be needed to run your aquaculture operation? Are you prepared to train and manage these people? You will need to follow business regulations and have processes in place to provide a safe, productive working environment for employees.

Water Sources – aquaculture requires access to a clean water source.

Is there an adequate clean water source where your farm is located? How will you safeguard against polluting the environment with effluent from your farm? What permits or costs will be required for your water use?

Sustainability – will you ensure your aquatic species will be farmed in a sustainable manner?

Consumers are increasing concerned that their food is grown in a sustainable manner. This depends not only on the quality of the farmed seafood, but also on the impacts the aquaculture farm has in a larger context. The World Bank sees sustainable aquaculture as having these qualities:

- **Environmental sustainability —** Aquaculture should not create significant disruption to the ecosystem, or cause the loss of biodiversity or substantial pollution impact.
- **Economic sustainability —** Aquaculture must be a viable business with good long-term prospects.
- **Social and community sustainability —** Aquaculture must be socially responsible and contribute to community well-being

To guarantee the quality and traceability of seafood, there are a growing number of organizations, such as the Aquaculture Stewardship Council (ASC) and Best Aquaculture Practices (BAP) that help certify that seafood is responsibly farmed.

3. Get Education & Training

You should make sure you have the necessary experience to grow the aquatic species you will be farming. You can gain experience by working or volunteering at another farm or by starting a small pilot project of your own.

If you are committed to a career in aquaculture, you can consider enrolling in a degree program at a community college or university.

You can also get education by using relevant publications, videos, and online training programs. You should try to attend a course or workshop put on by knowledgeable practitioners in aquaculture. Often universities, career schools, or operating aquafarms will provide these types of training courses.

You can get in touch with local aquaculture associations, colleges or universities, or global organizations such as the Food and Agriculture Organization (FAO), World Aquaculture Society (WAS) and WorldFish which are all good sources of information.

Learning how to take eggs from an Atlantic salmon
(Photo credit: Wisconsin Sea Grant)

4. Develop a Business Plan

Taking the time to develop a comprehensive business plan will help guide your business and minimize risk. A business plan for a small, backyard enterprise will not need to be as detailed as for a larger business. Regardless of the business size, a business plan will still be a useful tool.

By gathering information and figures to help produce financial forecasts, a marketing plan, an operating plan, and management and personnel requirements, you identify potential problems before you begin construction or production. Doing the planning and drawing on the experience of others will help prevent mistakes.

Once you have developed a business plan you can use it to help guide you as you start and operate your business. Business plans are “living” documents and will need to be updated from time to time as you gain more experience running your enterprise.

The business plan will also be a key document if you are seeking outside financing for your business from banks, investors, or other money sources (government grants, foundations, etc.).

5. Prepare Your Production Facility or Site

Once you have a completed business plan, aquaculture site licensing, and financing, then you are ready to prepare your production site or facility. Your culture species and geographic location will be key determining factors in the type of system you use.

Aquaculture culturing systems vary widely in terms of complexity and costs. Growing fish in natural ponds may require little in terms of time and money to prepare the site. A sophisticated recirculating system on the other hand will require considerable time and money to put into operation.

You will need to make sure your production facility or site is operational before introducing the aquatic species that you will culture. You will want to have contingencies plans in place to ensure that your aquaculture product system will still function even if there is a temporary disruption to normal operation.

Recirculating aquaculture system

6. Start Culturing

As part of your preparation for your aquaculture venture, you should have acquired the necessary knowledge and training to be able to grow your selected aquatic species.

Part of the planning should include a decision of whether you will culture your aquatic species through the whole life cycle or obtain juveniles or seed and then perform grow out to market size. Depending on your decision, you will want to acquire the necessary brood stock or juveniles to begin culturing.

As you begin operations, you will establish daily routines for feeding, stock maintenance, and monitoring your aquatic species. You will fine tune your operations as experience dictates.

Once your aquatic species have reached market size, then you can begin harvesting and delivering to customers.

7. Market Your Product

The key to a successful business is being able to generate cashflow to sustain and grow your business. As part of your planning process you should identify the target market for your products and the price you can sell your products for. The pricing you charge should support operational costs for your business and generate a profit.

Your marketing and sales efforts will depend on the size of your venture. If you are a small enterprise, you may be selling your products through local farmers markets or food co-operatives. For example, if you are selling whole fish to a local market, then you may have minimal processing and marketing costs.

If you have a larger business then your marketing and sales initiatives will be more complex. You may be supplying products in several forms (fresh vs frozen, whole fish vs fillets, etc.) which will add processing and packaging costs. You will need branding to help distinguish your products from others in the market. You will need to adhere government food regulations as you produce your products.

You will need sales channels and contacts with distributors to assist in getting your product out to your marketplace.

Display of fresh Tilapia fillets

Certification programs like those provided by the Aquaculture Stewardship Council (ASC) and Best Aquaculture Practices (BAP) ensure that seafood produced by the aquaculture industry follows responsible and sustainable culturing practices. You may find it beneficial to make sure your products meet certification guidelines for greater acceptance in the marketplace.

For Further Reading

Aquaculture Business Plans

- Developing an Aquaculture Business Plan
  http://media.ctseagrant.uconn.edu/publications/aquaculture/busplan.pdf
- Developing Business Proposals for Aquaculture Loans
  https://srac.tamu.edu/serveFactSheet/73
- A Sample Fish Farming Business Plan Template
  https://www.profitableventure.com/fish-farming-business-plan/

Starting an Aquaculture Business

- Aquaculture Small Business Startup Kit (Indiana & Illinois, United States) https://southcenters.osu.edu/sites/southc/files/site-library/site-documents/abc/Aquaculture,%20doc%203.pdf
- Aquaculture: Realities and Potentials When Getting Started https://srac.tamu.edu/serveFactSheet/276
- Aquaculture site selection and production (Queensland, Australia) https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/aquaculture/site-selection-production
- Planning for Success in Your Aquaculture Business (Maryland, United States) https://www.mdsg.umd.edu/sites/default/files/files/101-Planning%20for%20success.pdf
- Starting a Fish Farming Business https://www.profitableventure.com/starting-a-fish-farming-business/
- Getting Started in Aquaculture (Oklahoma, United States) https://thefishsite.com/articles/getting-started-in-aquaculture
- Factors to Consider in Establishing a Successful Aquaculture Business in the North Central Region (North Central, United States) https://www.ncrac.org/files/biblio/tb106.pdf
- How to start you own aquaculture business (South Africa) https://www.farmersweekly.co.za/animals/aquaculture/how-to-start-your-own-aquaculture-business-part-1/
- Fish Farming – How to exploit the rewarding potentials of the African Catfish and Tilapia http://www.smallstarter.com/browse-ideas/tilapia-and-catfish-farming/
- Aquaculture: Good planning essential for fish farming success (Africa) https://www.africanfarming.com/aquaculture-good-planning-essential-fish-farming-success/

- Should You Attempt Fish Farming? Considerations for Prospective Fish Growers (Virginia, United States)
  https://pubs.ext.vt.edu/420/420-897/420-897.html
- Is Fish Farming for Me?
  http://www.langston.edu/fish-farming-me
- Aquaculture: Put food on the table and earn a promising extra income (South Africa)
  https://www.africanfarming.com/aquaculture-earn-promising-extra-income/
- Starting a Fish Farm in India
  https://www.roysfarm.com/fish-farming-in-india/
- Fish Farming in India Guide: How to Start Fish Farming Business
  https://www.farmingindia.in/fish-farming/

Aquaculture Production Systems

- Aquaculture Systems for the Northeast
  https://www.mdsg.umd.edu/sites/default/files/files/104-Aquaculture%20systems.pdf
- A Guide to Recirculation Aquaculture
  http://www.fao.org/3/a-i4626e.pdf
- Getting Started in Aquaculture: Environmental Concerns and Regulations
  https://www.uwsp.edu/cols-ap/nadf/Documents/Getting%20Started%20in%20Aquaculture.pdf

Operating an Aquaculture Business

- Introduction to Financial Management of Aquaculture Businesses
  https://srac.tamu.edu/serveFactSheet/243
- Good Aquaculture Practices
  https://srac.tamu.edu/serveFactSheet/291
- Small-Scale, On-Farm Fish Processing
  https://srac.tamu.edu/serveFactSheet/101

Marketing Aquaculture Products

- Aquaculture Products: Quality, Safety, Marketing and Trade
  http://www.fao.org/3/AB412E/ab412e14.htm
- Handling, Processing, and Marketing of Aquaculture Products
  http://www.fao.org/3/s4863e/s4863e09.htm
- Marketing Aquaculture Products
  https://www.agmrc.org/commodities-products/aquaculture/aquaculture-products
- Marketing Options for Small Scale Aquaculture Producers
  https://appliedecology.cals.ncsu.edu/wp-content/uploads/Marketing-Options-for-Small-Producers-ANR-962.pdf
- Small-Scale Marketing of Aquaculture Products
  https://appliedecology.cals.ncsu.edu/wp-content/uploads/SRAC350.pdf

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- Disease Prevention
- Harvesting and Processing
- Education and Training
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