

Aquaculture 101

Some of the basics

So you are interested in aquaculture. You have thought about it and you want to know more about it before you decide if this is what you really want to be doing. There are (more than) a few things that one should consider before putting any money into this. Some of these are listed below, although not in the order of importance.

There are many non-profit organizations available such as Aquaculture Without Frontiers - <http://www.aquaculturewithoutfrontiers.org/> and other resources that you can enlist in your adventure. Bear in mind that there is a difference between producing for yourself as food or producing for sale to others. Before you start though you should be thinking about the following as they are essential elements in any aquaculture project.

What requirements must you meet to satisfy government requirements?

This could be land use permits, septic tank permits, restrictions on the types of species that you can farm, water use permits, water discharge permits, etc. These can have a large impact on the overall costs of the process. There may be regulatory hurdles in place that preclude rapid development. You should consider much of this before you proceed. There may be a fisheries department you can start with. Contact the local government agencies to determine how you can proceed. Finding someone who has already dealt with these issues in country may be helpful as well.

To whom are you going to sell the product to?

This is one of, if not, the most important aspect of the entire process. Who will be buying your product and in what form? If the product is sold whole at pond side the constraints are different than if you are going to have to process (examples would be selling shrimp tails, or selling fish fillets, etc.). How are you planning on doing this? Growing a crop and then looking for the market is a very bad idea. If you need a processing plant then you need to either build one, lease one, or partner with someone who has one, etc. This should be thought out in advance. You may find that this is a potential avenue for you to sell your crop through or a path to them owning your farm.

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What species are you going to farm?

This may be impacted by what your market wants and what you can legally do. What animal are you growing? What size are you having to grow them to for optimal revenue? How are you going to feed your animals? Where will the feed come from? These are but a few of the many things that you need to address before you start. This has a direct impact on all the subsequent steps, as it will affect your production paradigm, the size of the operation, etc.

Where are you planning on farming?

Different species have different optimal growth requirements. Access to water that meets the biological requirements of the species being produced can reduce overhead significantly. The correct composition in terms of salinity, temperature, ionic composition, etc. is essential. Access to electricity can be crucial as well if you are planning on producing at higher densities and cannot depend on water exchange rates as the sole means of controlling the natural environmental fluctuations. Digging wells can be costly with no guarantees of water quality. Bringing electricity to outlying rural areas has issues as well. Regardless you will need access to a back-up generator (or two), if you are aerating ponds. Who are your neighbors? What things are they doing that can influence your water quality? How will you get the final product to the market? Where is the nearest ice machine?

With this information in hand as a starting point, you should have a rough idea of capital expenditures (depends on the species and your production paradigm), what you can expect to sell your final product for (your market research will tell you this), and a rough idea of your operating expenses and overhead costs. This information can serve as the template for a finely tuned business plan, the next step in ensuring that your ideas are sound and that you have laid out a plan that an investor would want to see.

This is **not intended** to be an all-inclusive list. Consult with your local regulatory authorities as to their requirements in detail.