

The background image shows a rural outdoor setting. In the foreground, there is a large, cylindrical concrete water tank with a green lid, next to some green plants. A line of laundry, including various colored clothes, is hanging on a wooden frame. Two white umbrellas are also visible. In the background, there is a two-story concrete building with a balcony and a satellite dish. The scene is set in a hilly area with other buildings and vegetation visible in the distance.

Aquaponics

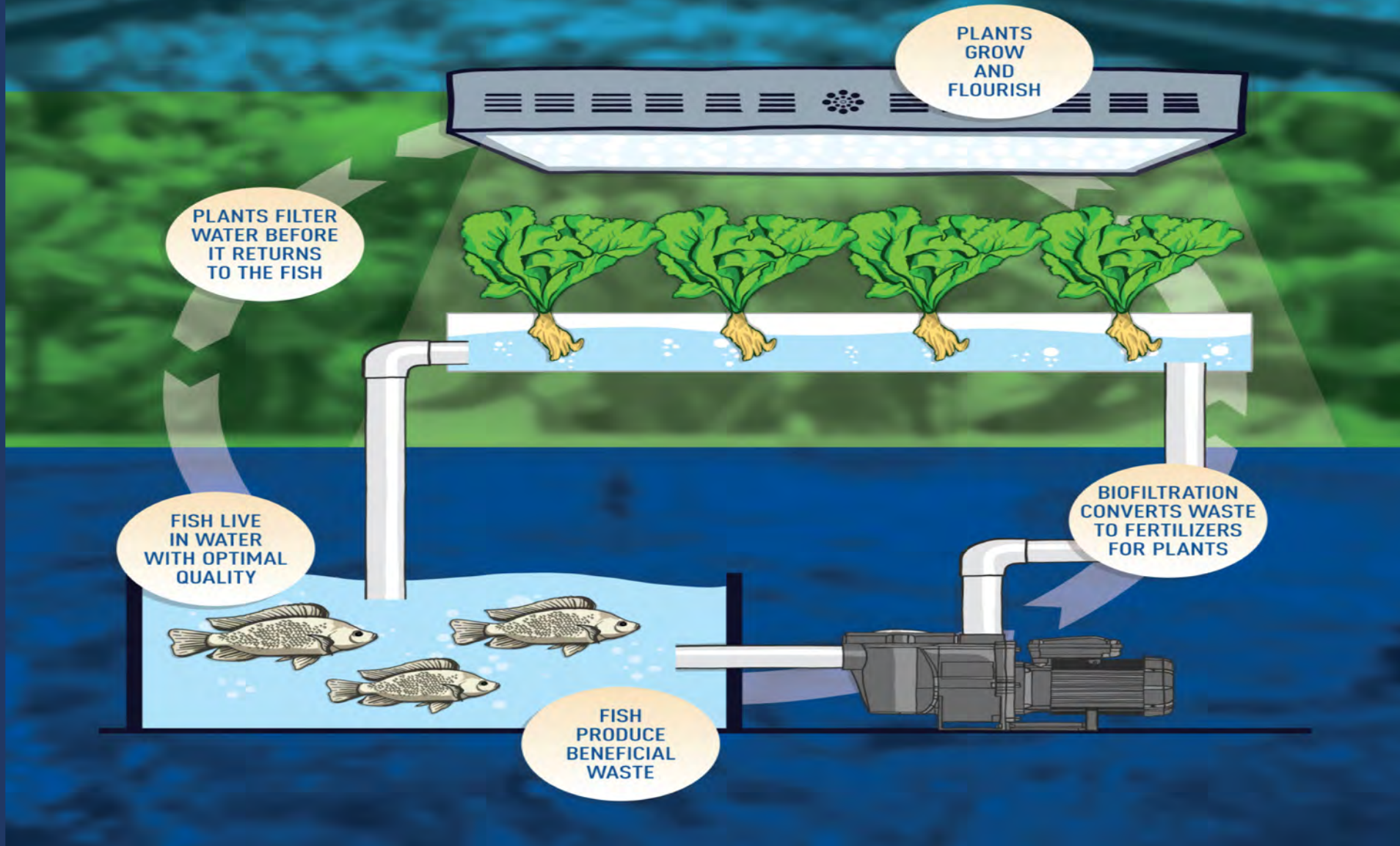
With Judah Becker

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Aquaponics: an ancient organic agriculture that sustains high intensity growth with maximum nutrients, in minimum spaces

AQUAPONICS CYCLE





At our
orphanages
in Thailand,
open source
aquaponics
is best.



We have grown food in 22
countries.

Every place has it's own special
challenges and features.



Idaho gets very cold and very hot. A greenhouse with shade for summer and insulation for winter with sustainable power works best.



Our system in Hawaii is on a hill
so passive flow works best.



Important factors to the success and style of our aquaponic system:

Time • Money • Distractions

FORMULA

SUCCESS = TIME + MONEY ÷ DISTRACTIONS



ONE MILLION POUNDS
OF VEGETABLES ON
ONE ACRE

WHY AQUAPONICS?


It's controllable

In Cambodia, we worked with single mothers who could barely feed their family. Some chose to sell one of their children to support the other children. That was unacceptable so we developed a system fully ready to go and deliver. It was a 2000 liter container with everything inside to produce extra income with the least amount of effort or skill.






Maximum harvest in minimum space. Usually the poor have little or no extra space. So roof tops, side yards or porches can produce enough food to feed a family.



It is safe. A farm next to a home has little chance of theft. In poor hungry areas, theft is always a concern, as is jealousy. Contamination is a consideration. What goes into your fish can be controlled and safer.



Scalable. No matter what your goals, there is a system for you! On two acres, one of our people has a million dollar business, produce 5,000 heads of lettuce per day.

A close-up photograph of a person's hand holding a thick stack of US dollar bills. The bills are fanned out slightly, showing the top of the stack. The background is filled with green bell peppers, which are out of focus. A semi-transparent white circle is overlaid on the right side of the image, containing text.

Predictable. We can control
our environment, our
production, our pests, our
weeds, to maximize profits.



Variety. The food we grow, is our choosing, because we are not limited to the environment we live in.




Environment. We use only
5% of the water modern
farms use. We produce 10x
the food per acre.

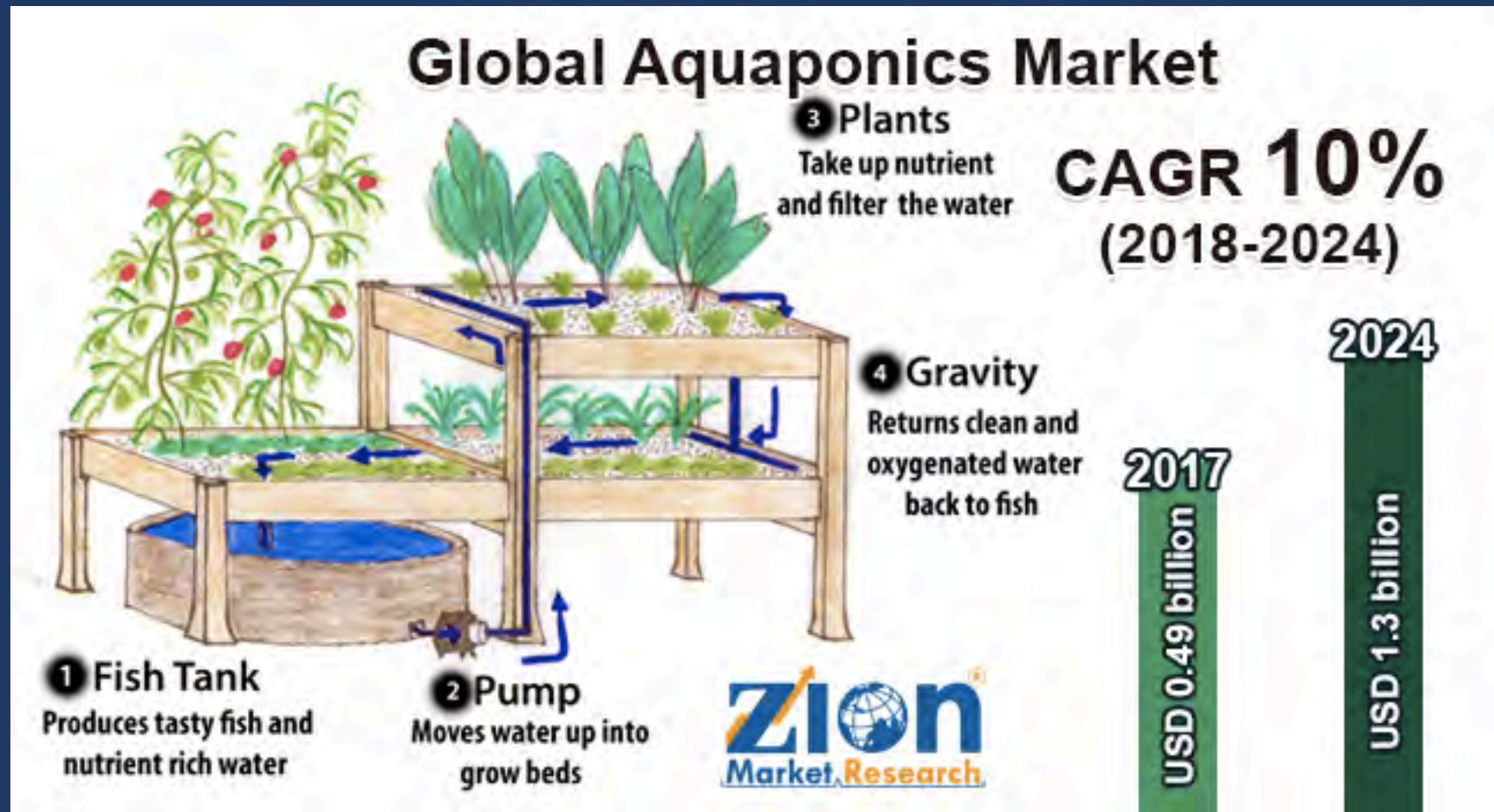


UNDERSTANDING THE ART AND RELATIONSHIPS OF YOUR AQUAPONICS





Know your vision. I may have one vision of why grow food via aquaponics. But your vision, mission, obstacles and goals may be very different. That is why in the very first sessions; we work on V.M.O.Gs. One person's Vision may be to live off the grid, another to feed an orphanage, another to eat thy food, another to be close to God, another just likes it. The obstacles of culture and environment must be seriously considered.



Know your people.

Who is going to work this aquaponics farm?
Is it a garden or a little porch project? Size matters!



Know your environment.
Thailand has a unique environment to Idaho.



Know your science.

The "loop"- The air, water, microbes, fish and plants.

The mechanisms - tanks, power sources, etc.

But the best science is **the arts**



Know your fish.

Every fish has a personality with unique desires and needs.
And what do you like to eat, sell and grow?



Know your plants.

What do you all want to eat? Will your people eat it?

What sells best that you like to grow?



Know your market.

This is really the first step. Is it you, alone? Is it your family?
Is it your village? Is it for profit? Is it a career?



There is a wide
variety of vegetables
we can grow.

A photograph of a garden pond. On the left, a weathered metal railing with ornate scrollwork and leaf designs runs diagonally. In the center, a small waterfall flows over a mossy stone structure into a dark pond. Several orange and white goldfish are visible in the water. To the right, a large, vibrant green plant with long, narrow, spiky leaves dominates the frame. A semi-transparent white circle is overlaid on the right side of the image, containing text.

Consider exotic
plants as well.



A photograph of a rural village scene. In the foreground, there is a large, cylindrical metal water container with a green lid, sitting on a patch of grass. To its right, a dirt path leads towards a two-story concrete house. Laundry, including a bright yellow shirt and a red shirt, is hanging on a line in front of the house. The house has a balcony with a metal railing. In the background, there are rolling hills and mountains under a clear sky. The text "MERCYHOUSEMINISTRY.ORG" is overlaid in large, white, bold letters across the middle of the image.

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