

l'he University Sheffield

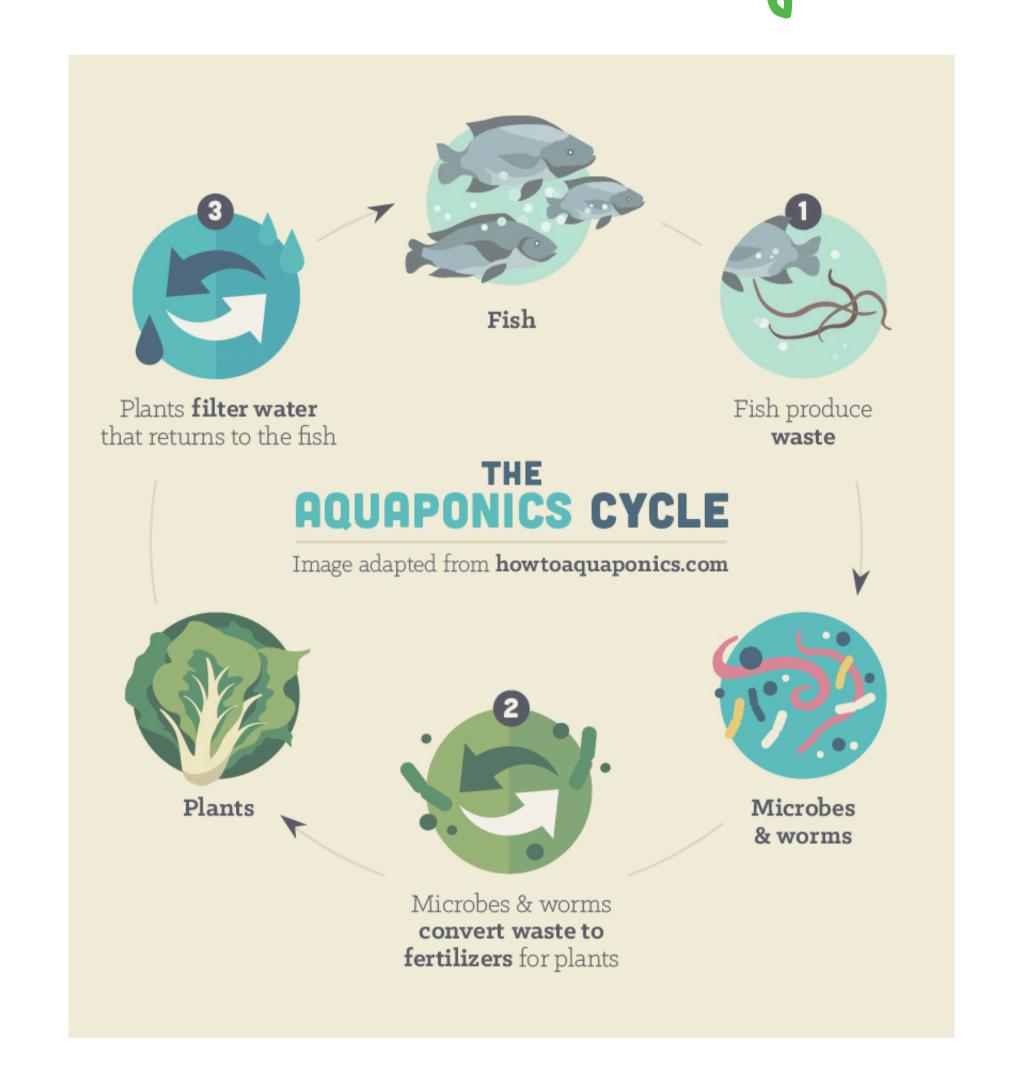


w. We Grow. Social

## Growing clean local tood, fast, with aquaponics

We'll be sater when...

...we grow more food locally



## Aquaponics is...

... growing fish and vegetables in the same water.

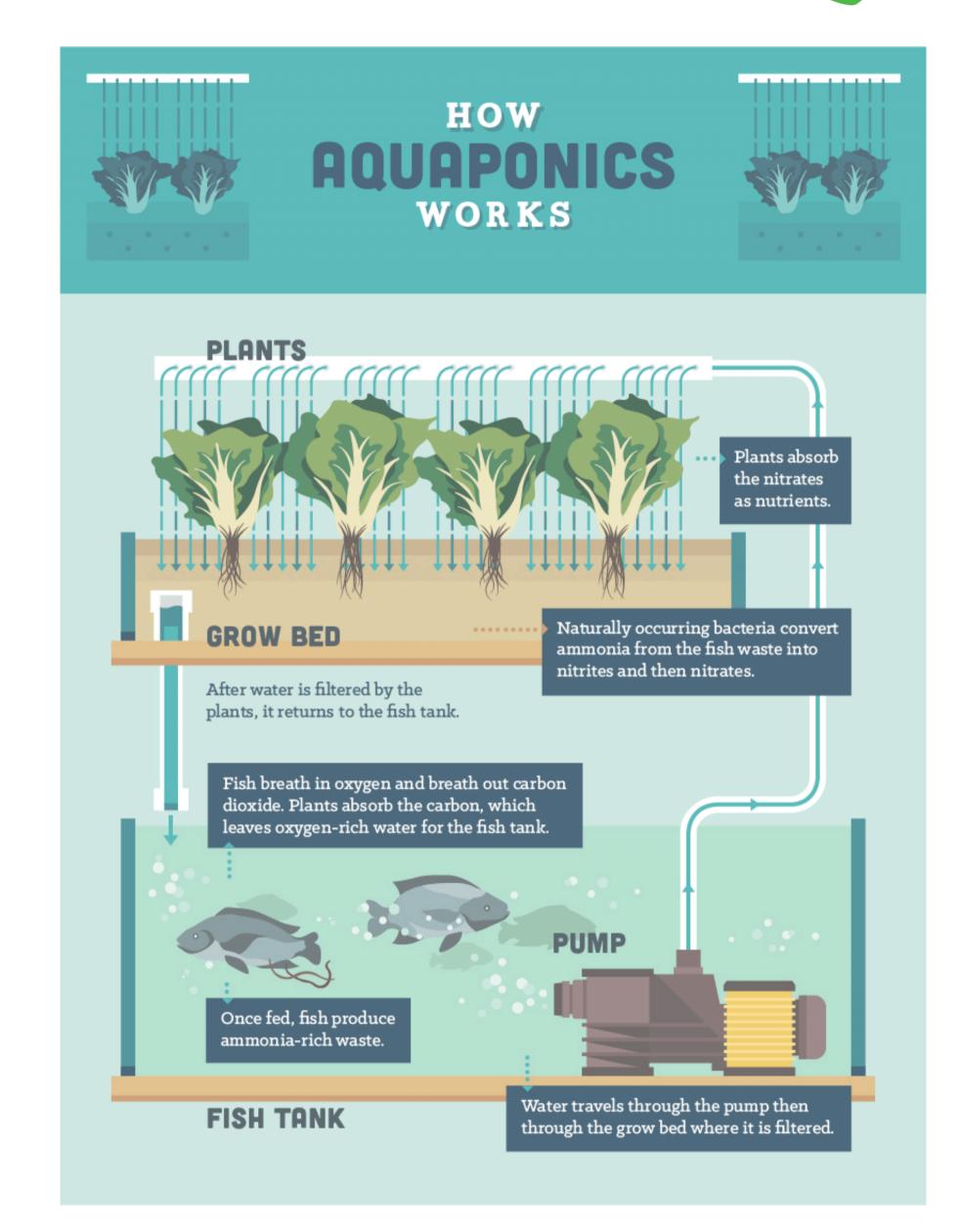
The fish wastes are changed into food for the plants, which clean the water for the fish in a virtuous circle.

We get a fast and flexible growing method that doesn't use fertilisers (and can't use pesticides).

We need more food that's not at the end of long supply chains, vulnerable to climate chaos, war and economic crisis.

If we meet our basic needs locally we can survive these shocks (we can be resilient.

...using stuff not from oil or gas

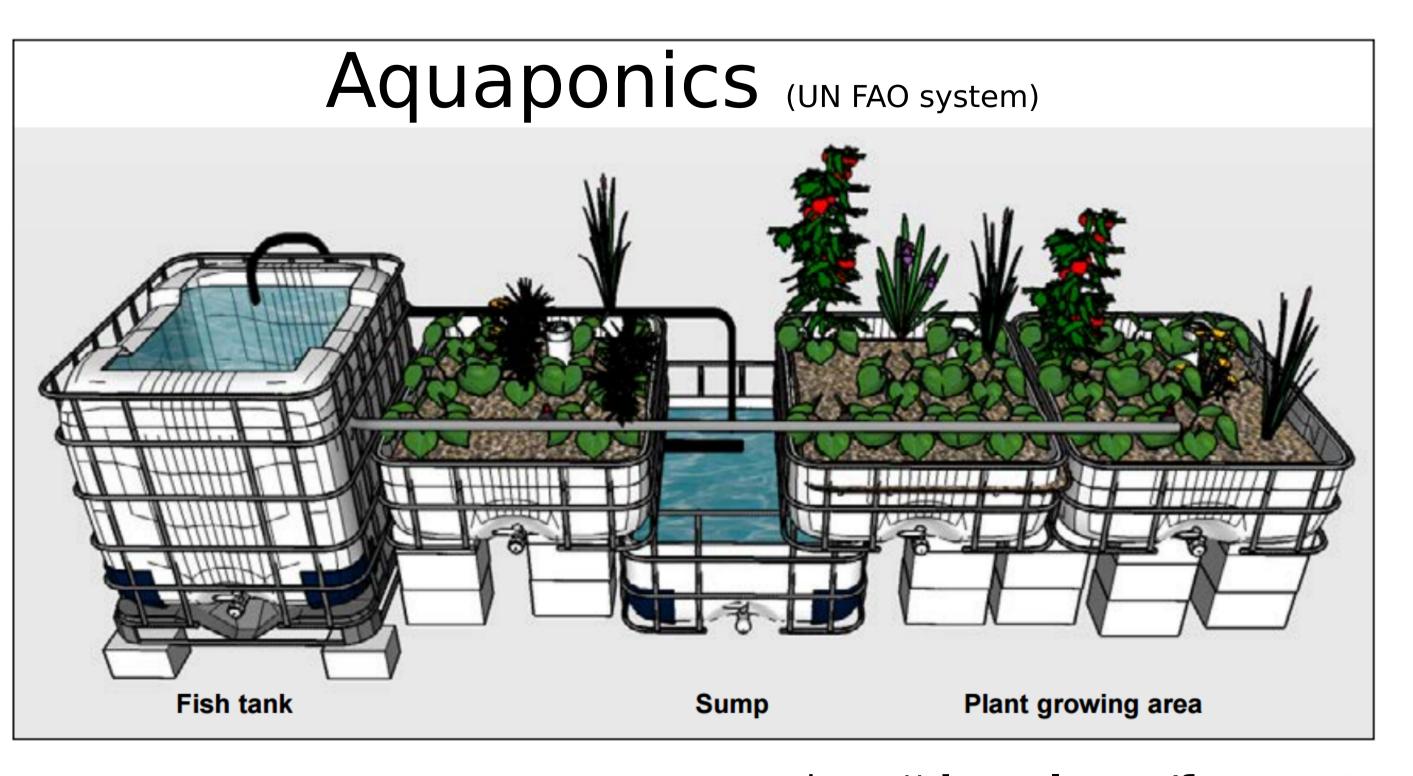


The Haber-Bosch process (making fertilisers) burns 3% of world natural gas, releases 3% of world carbon emissions, and uses scarce resources.

Fish eat all sorts of stuff, from insects to food waste.

What is sustainability? Not relying on stuff that's running out or destroying the planet.

Aquaponics allows us to grow year round in all sorts of spaces, without soil and without wasting water.



http://tinyurl.com/faoaprpt

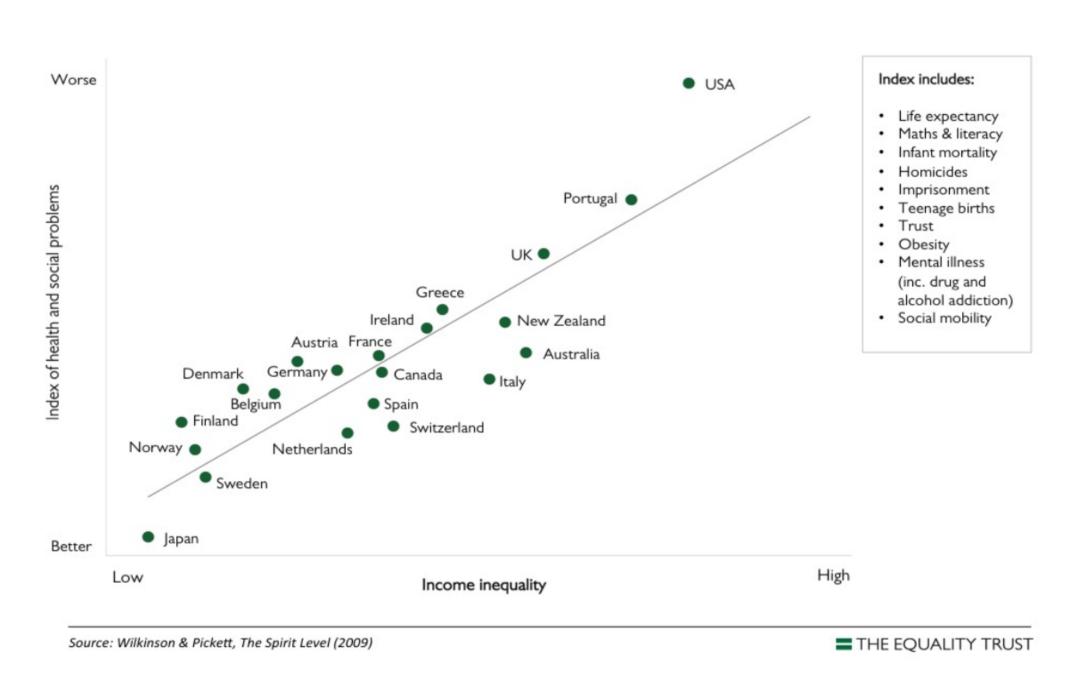
We're making systems like this from recycled containers, and adding open electronics to share data in citizen science.

The designs are open and free so they can be produced anywhere.

Local food, global community!

## ...for needs, not balance sheets

Health and social problems are worse in more unequal countries



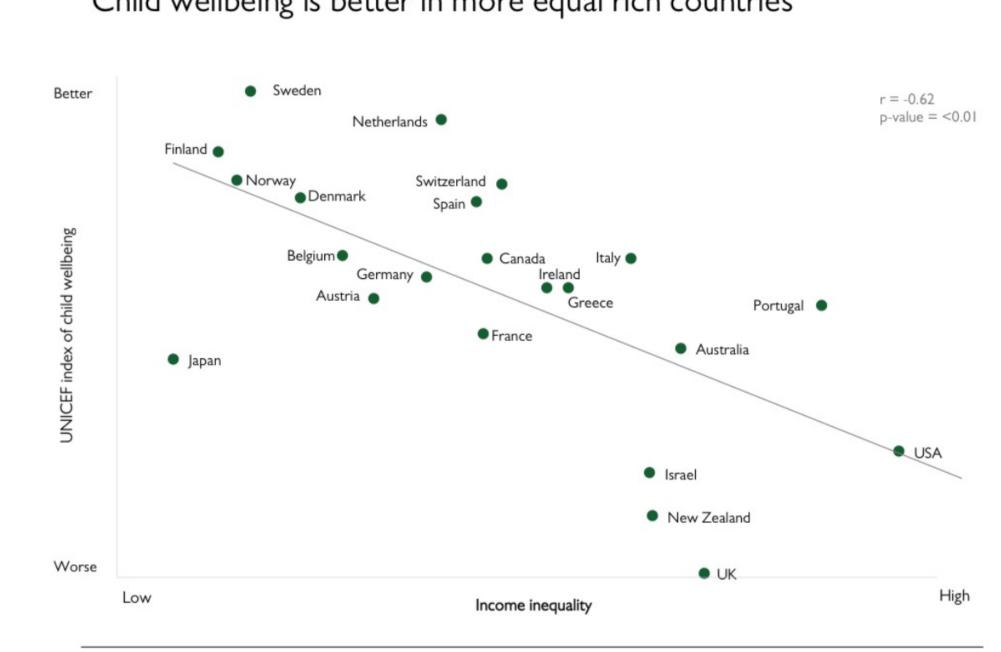
147 massive corporations control the lion's share of production. They're required by law to maximise shareholder value.

The more unequal a society, the worse its quality of life for all citizens.

It is often said that the law of evolution is that the strongest survive -we should remember that in a social species, the strongest are the most social.

Our heads are round so that thoughts can change direction!

Child wellbeing is better in more equal rich countries



Join the fun: Get in touch at www.wegrow.social and help save the world with fish poo: -)

Cunningham H, Kotzen B. Meet the sustainable vegetables that thrive on a diet of fish poo. The Conversation, 2015. Somerville C, Cohen M, Pantanella E, Stankus A, Lovatelli A. Small-scale Aquaponic Food Production: Integrated Fish and Plant Farming. FAO, 2014. Vitali S, Glattfelder JB, Battiston S (2011) The Network of Global Corporate Control. PLos ONE 6(10): e25995. doi:10.1371/journal.pone.0025995 Pickett K, Wilkinson R. The Spirit Level: Why Equality is Better for Everyone. Penguin UK, 2010. Zhang, S. A Chemical Reaction Revolutionized Farming 100 Years Ago. Now It Needs To Go. Wired, 05.16.16.

THE EQUALITY TRUS