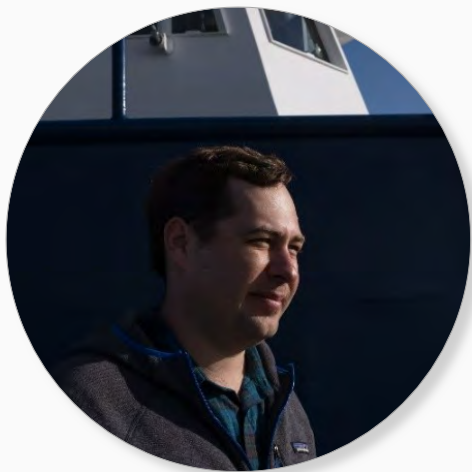


Building Confidence in Aquaculture: Thoughts on the Future in the Pecha Kucha Style

- **SUNIL KADRI**, AQUAINNOVATION
- **MATT THOMPSON**, NEW ENGLAND AQUARIUM
- **ROBERT JONES**, THE NATURE CONSERVANCY
- **ISAAC FRAYND**, AQUA-SPARK
- **JENNIFER BUSHMAN**, ROUTE TO MARKET
- **SCOTT WILLIAMS**, BJ'S WHOLESALE CLUB



Robert Jones

Robert is the global lead for aquaculture for The Nature Conservancy. He manages projects designed to demonstrate the environmental, social and economic benefits that aquaculture provides for people and nature. Previously, he was the program coordinator for the NOAA Fisheries Office of Aquaculture, where he worked to develop the agency's new Marine Aquaculture Strategic Plan. Before that, Robert served as Knauss Fellow with the U.S. Department of State.

AQUACULTURE
LEAD
THE NATURE
CONSERVANCY

AQUACULTURE BY DESIGN



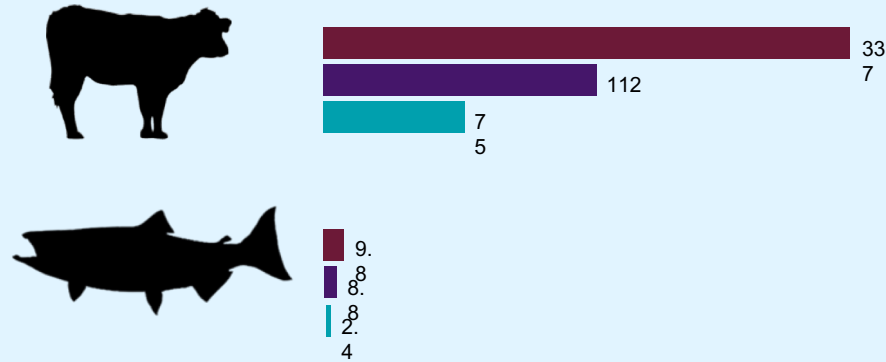
**Aquaculture By Design: The Nature
Conservancy's Sustainable Aquaculture Program**
Robert Jones, Global Lead for Aquaculture

GOAL
GUAYAQUIL
ECUADOR
SEPTEMBER 25-27, 2018

Persepolis Narrative: Environmental AND Sustainable Aquaculture



Resource Use of Beef versus Aquaculture



Sources: WRI (2014) (mollusks, chicken, pork, and beef) and Pahlow et al. (2015)

GHG Emissions
(tonnes CO₂ emissions
per tonne edible protein)

Land Use
(hectare per tonne
edible protein)

Fresh Water Use (m³ per tonne
edible protein)

Credit: Aquarium of the Pacific

Aquaculture cannot fulfill its promise if major challenges are not addressed

Environmental Challenges

- Habitat Impacts
- Water Pollution
- Impacts to wild stocks
- Disease

Social Challenges:

- Labor Issues
- Gender Issues
- Impacts to fishing communities and other ocean users



A sustainable future for aquaculture means rethinking the:

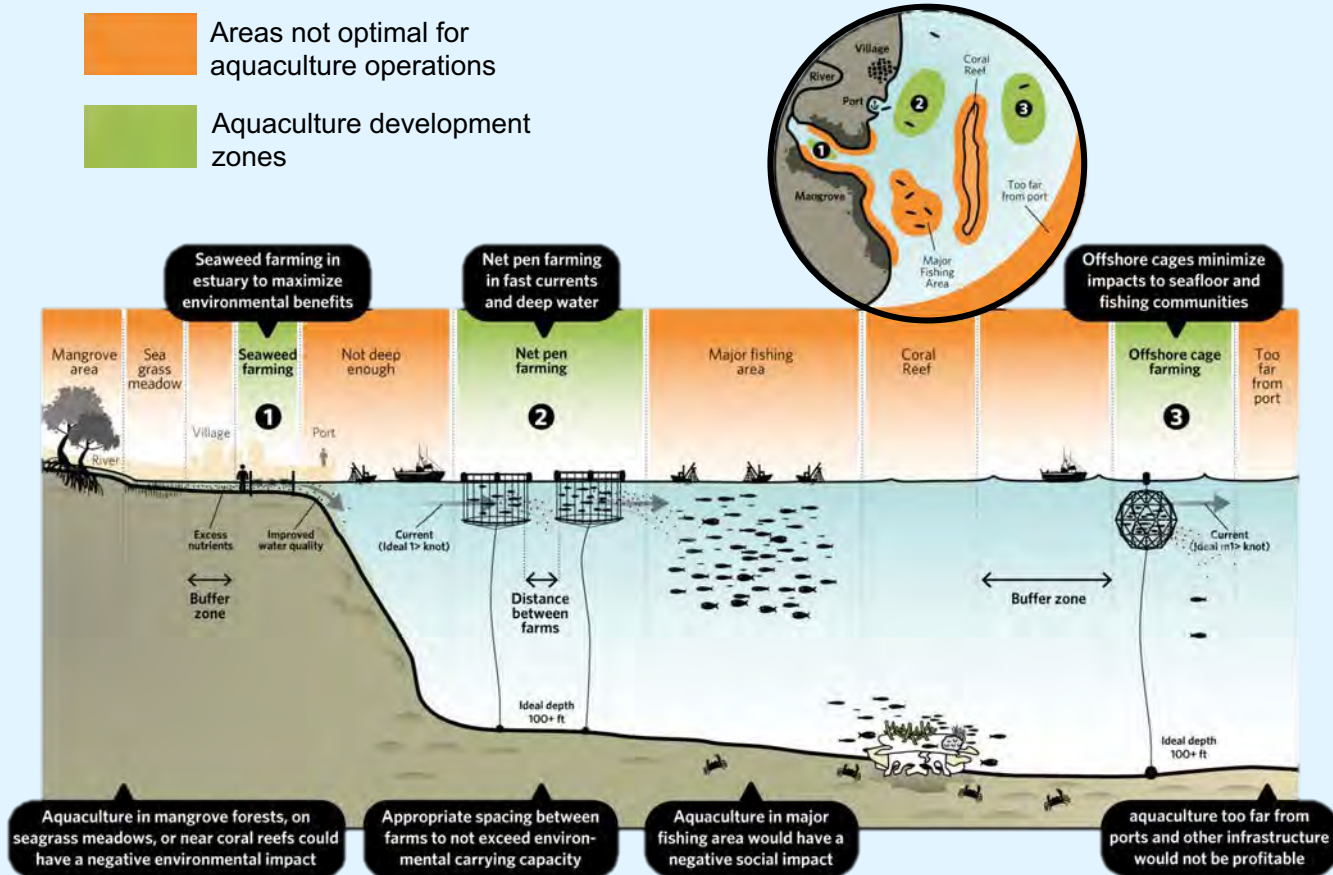


we grow our seafood

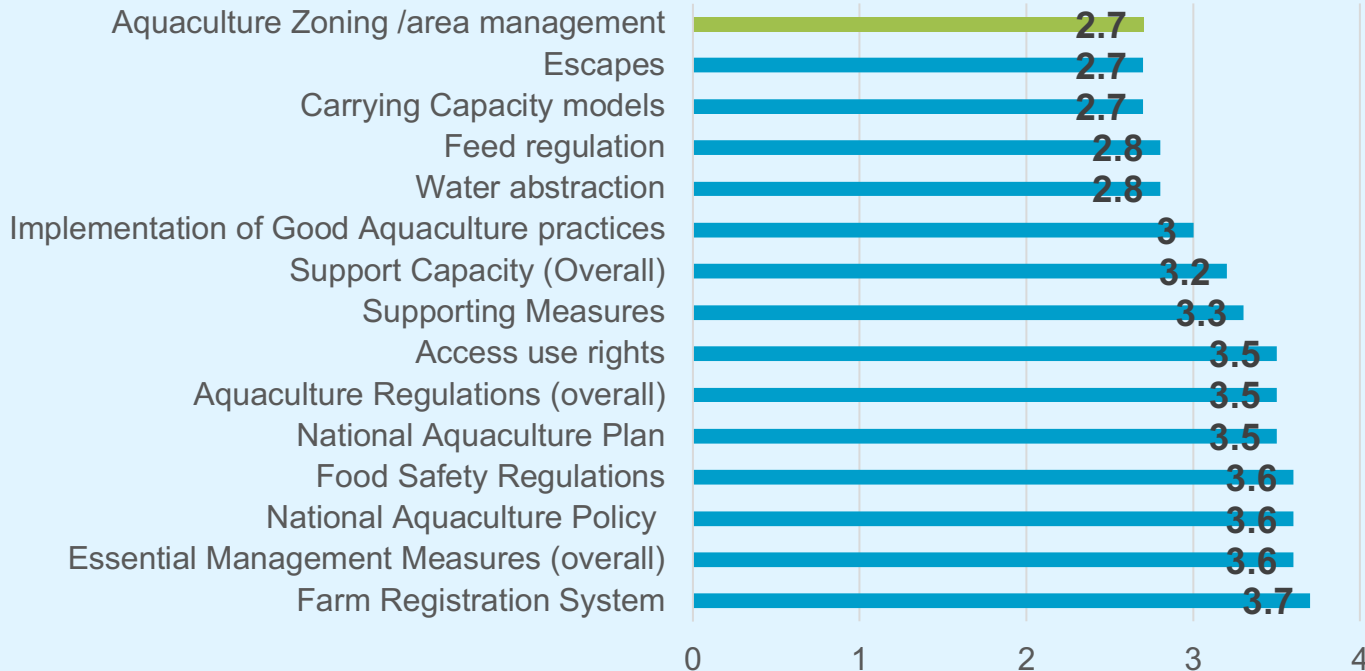
places



- Areas not optimal for aquaculture operations
- Aquaculture development zones



Countries are asking for help:

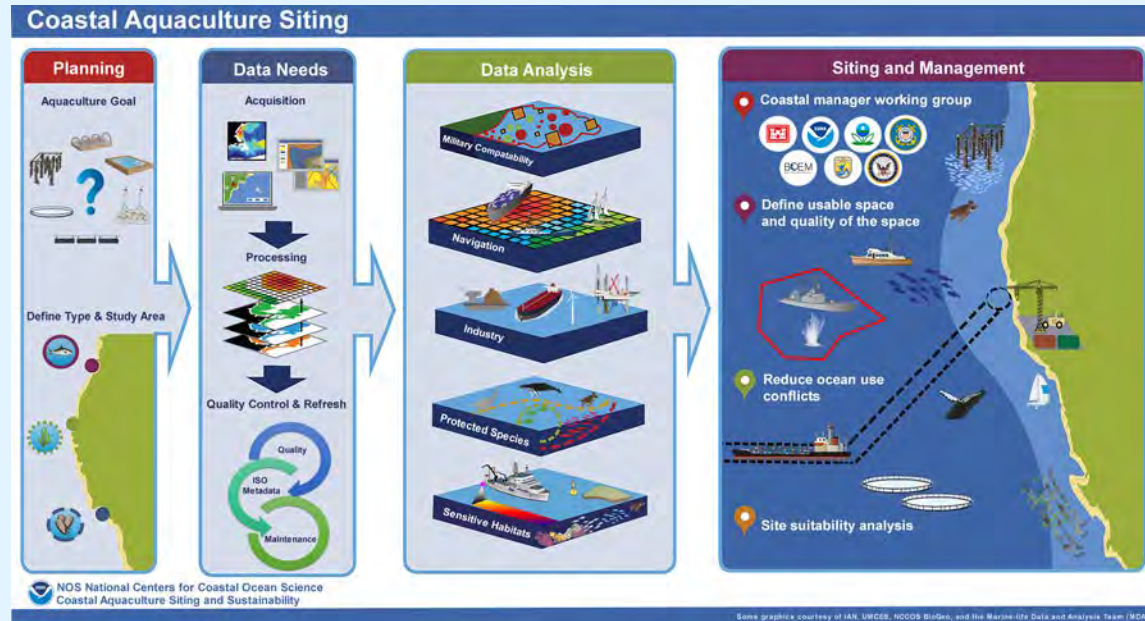


0 = Absolute Lack of Measure; 5= Full Enforcement at Ground-Level

Source: *FAO Aquaculture Subcommittee, Rome 2017*



Partnership with NOAA on aquaculture spatial planning to transfer these techniques to countries around the world

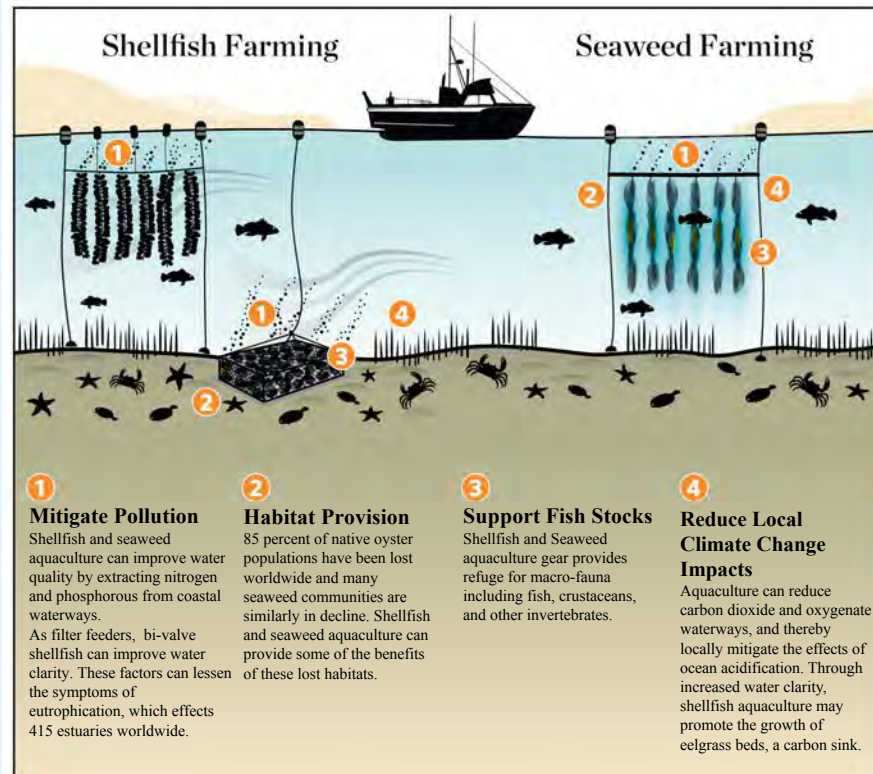


species

*Bivalves and Seaweed –
A Big Part of Our Future?*



Can aquaculture help restore ecosystems rather than degrade them?



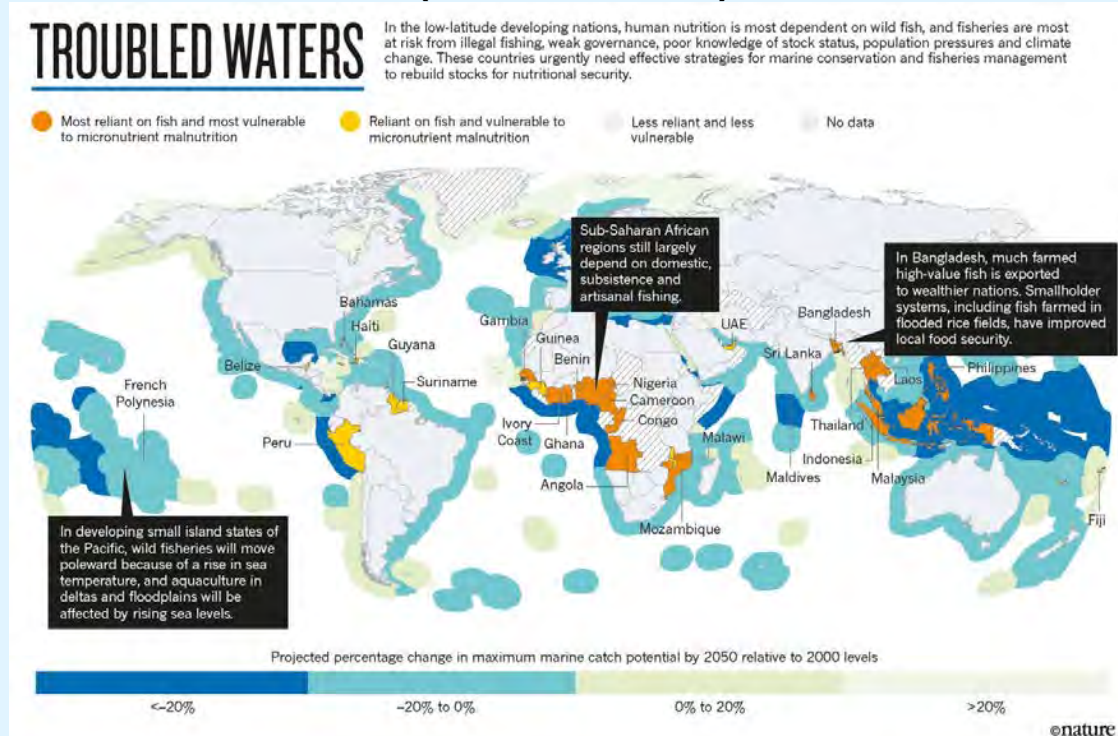
The Nature
Conservancy 

AQUACULTURE BY DESIGN



Countries reliant on wild fish and nutritionally vulnerable

(Golden et. al)



Marine aquaculture currently not benefitting nutritionally insecure communities

(Golden et. al)

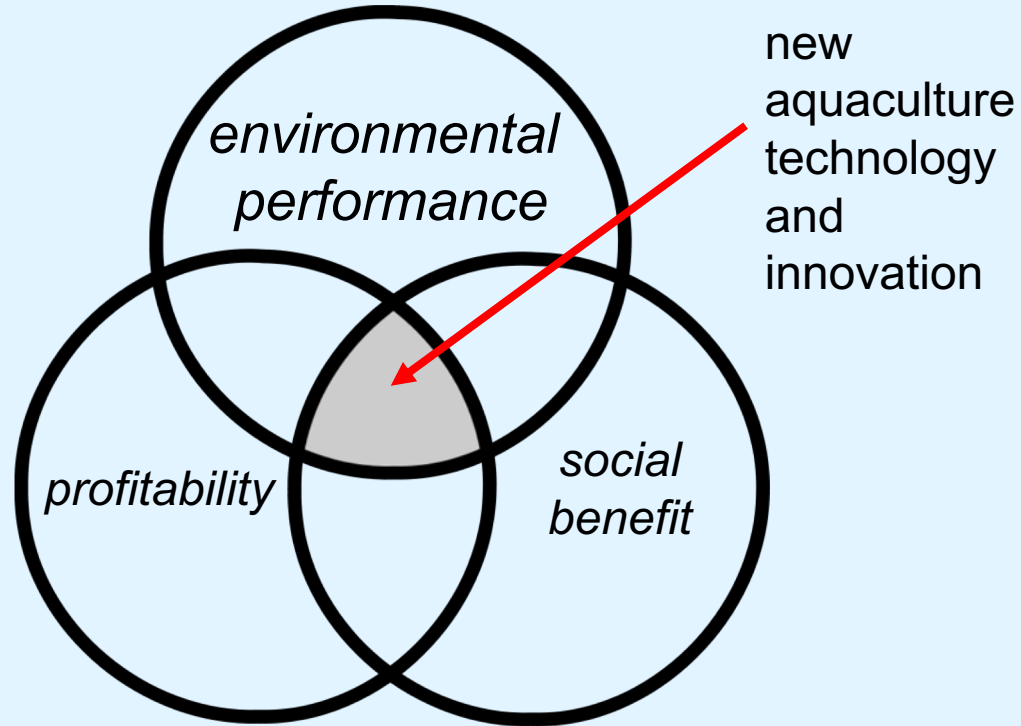


Is nutritionally-sensitive & sustainable marine aquaculture possible?

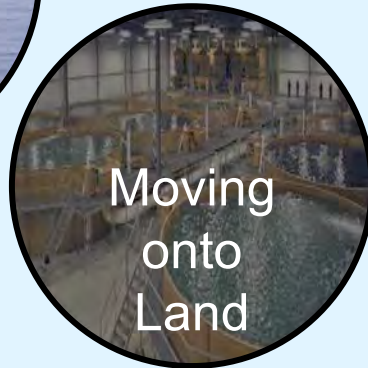


new collaboration with Harvard and piloting of rabbitfish aquaculture in Palau to assess opportunities

ways



Production Methods



Supply Chain Innovations



Pre-competitive Information Products for Investors and Philanthropists



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