FACT SHEET
AQUACULTURE

"In just a few years, most of the seafood we consume will come from aquaculture"
Dr. Daniel D. Benetti

The breeding, rearing, and harvesting of plants or animals in tanks, ponds, rivers, lakes, and the ocean - "fish farming" "aquafarming"

TYPES mariculture (saltwater), inland (mostly freshwater), and algalculture (seaweed and phytoplankton).

NUTRITION Provides half of global seafood consumption - expected to increase to 62% by 2030.

LIVELIHOODS Provides jobs to 18.9 million people, directly and indirectly. Valued at US $144 billion.

FOOD SECURITY Farm raised seafood improves food security and livelihoods for the world's poorest.

TRADE Asia produces 88% of world aquaculture (China - 62%). 15 countries produce 93% of world's farmed seafood.

NEGATIVE IMPACTS

OVERFISHING Often requires large amounts of fish meal and oil, putting pressure on wild stocks.

HABITAT DESTRUCTION Shrimp farming has destroyed 38% of the world's coastal mangroves.

TOXINS Use of antibiotic, dioxins, PCBs, carcinogens, banned substances, and pesticides.

ECOLOGICAL DISTURBANCE Spread of invasives, depletion of coastal fisheries, soil and water pollution.

FAULTY MARKETS AND MANAGEMENT Poor regulations and traceability, marginalization of small-scale fishers, and distorted value chains that favor ecologically and economically damaging species.

FUTURE OF AQUACULTURE

TECHNOLOGICAL INVESTMENTS Innovations to improve the breeding, disease control, production systems, and environmental management.

INCREASE EFFICIENCY Leverage current information technology to drive gains in productivity and environmental performance.

MARKET CHANGES Create transparent markets and chains of custody that reward improvements in productivity and environmental performance.

EAT LOWER ON FOOD WEB Avoid top predators (e.g. tuna) and shift fish consumption toward species lower on food web - they require less inputs.

FISHERIES MANAGEMENT Incorporate the spatial planning and zoning of farms into coastal management strategies.

COLLABORATION With proper management, markets, and innovation it's possible to cultivate sustainably farmed seafood that limits habitat damage, disease, and wild fish feed.

KEY WEBSITES

Aquaculture Stewardship Council (ASC)
www.asc-aqua.org/

Food and Agriculture Organization of the United Nations (FAO)
Fisheries and Aquaculture Department
www.fao.org/fishery/aquaculture/en

Olazul Innovation for Marine Conservation
www.olazul.org/our-mission.php#mission

National Oceanic and Atmospheric Administration (NOAA)
Office of Aquaculture
www.nmfs.noaa.gov/aquaculture/

WorldFish
www.worldfishcenter.org/

VIDEO

Bell Aquaculture
www.youtube.com/watch?v=U5tfr_1hPt8&list=PLp_dsT6N3RL6S2d967gCslUeQuRMi5BtP

Thimble Island Oyster Company
www.thimbleislandoysters.com/1379-2/

NOAA Office of Aquaculture Video Gallery
www.nmfs.noaa.gov/aquaculture/library/aq_video_gallery.html

Marine Aquaculture | *A Promising Future*
www.youtube.com/watch?v=e_C3eZDfWqc

EXPERTS

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RELATED FACT SHEETS

Overfishing, Blue Economy, Sustainable Seafood, Traceability, and Shrimp

Available: WaittInstitute.org/factsheets