

A man in a plaid shirt and green cap is standing in a pond, holding a blue bucket and feeding fish. The pond is covered with a large, dark net structure. The background shows trees and a clear sky.

Global Overview of (Marine) Aquaculture

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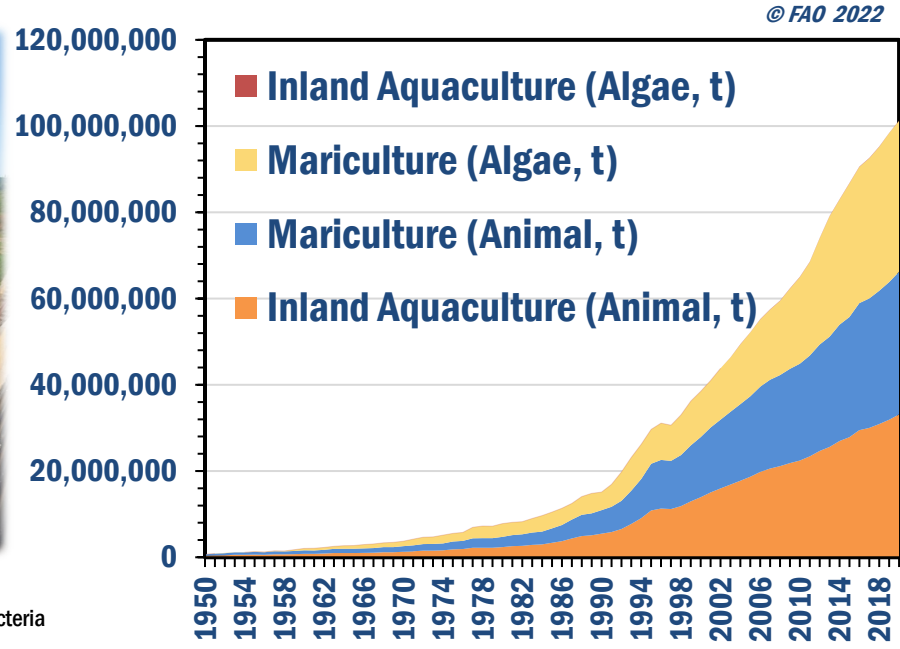
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THE STATUS OF AQUACULTURE PRODUCTION*



* ALGAE refers to seaweeds, microalgae and Cyanobacteria

2020 - 2.7% (1.4%) annual growth animal (algae) aquaculture



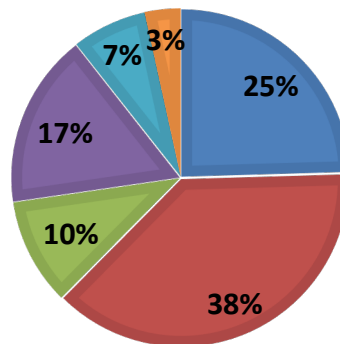
THE STATUS OF AQUACULTURE PRODUCTION IN 2020

<u>Total Production</u>	122.6 Mt
Animal	87.5 Mt
Algae	35.1 Mt
<u>1st sale Value</u>	USD 281.5 billion

Animal Production

Inland aquaculture	54.4 Mt
Marine Aquaculture	33.1 Mt

652 species or species-types

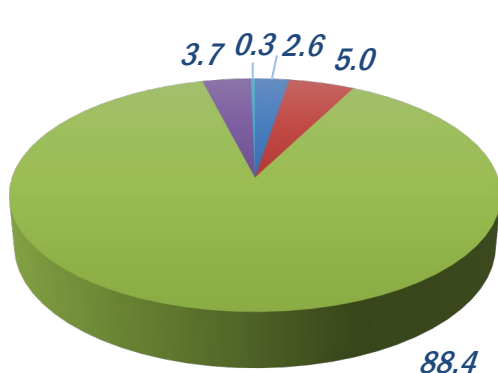


- Marine Fish
- Freshwater and diadromous Fish
- Crustaceans
- Molluscs
- Algae
- Other

GEOGRAPHY OF PRODUCTION IN 2020

Aquatic Animals* (%)

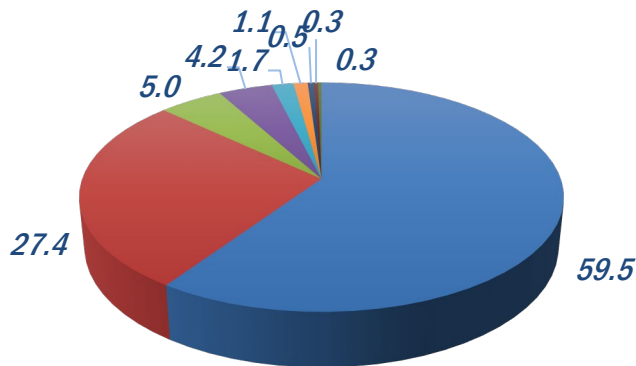
TOTAL = 87,5 Mt



- Africa
- Americas
- Asia
- Europe
- Oceania

Aquatic Algae* (%)

TOTAL = 35,1 Mt

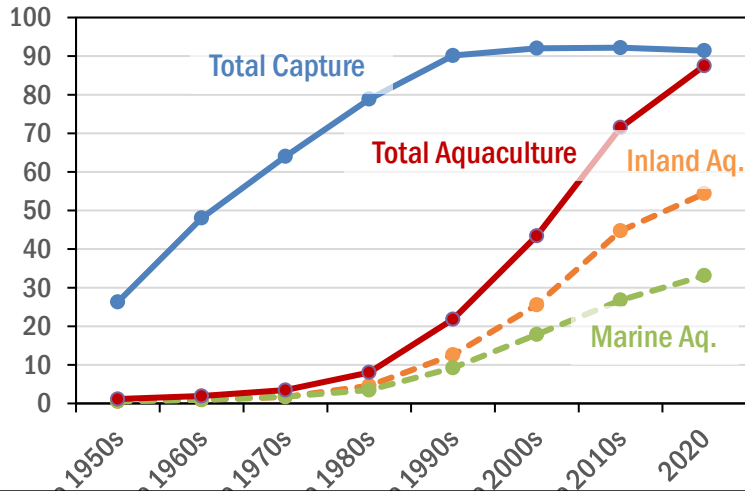


- China
- Indonesia
- R. Korea
- Philippines
- DPR. Korea
- Japan
- Malaysia
- Tanzania-Zanzibar

* seaweeds, microalgae and Cyanobacteria

THE TRANSFORMATION OF THE AQUATIC FOODS SECTOR

Aquatic Animal Production by decade
(Mt)



Total capture not used for direct human food (%)

1960s	1970s	1980s	1990s	2000s	2010s
48.5%	43.9%	41.6%	36.2%	23.2%	13.7%

AQUACULTURE: BEATING EXPECTATIONS



	2020 Baseline Projection	2020 Data (TBC in SOFIA 2022)
Total Fish Food	130.1 Mt	>155 Mt
% Aquaculture Consumption	41%	>50%
	17.1 kg/p/yr	>20 kg/p/yr

Models underestimated:

- new technologies,
- globalization and trade
- policy on aquaculture and fisheries

@Asseng et al. 2021 J. Agric. Sci. 159

Harnessing the possibility of tomorrow

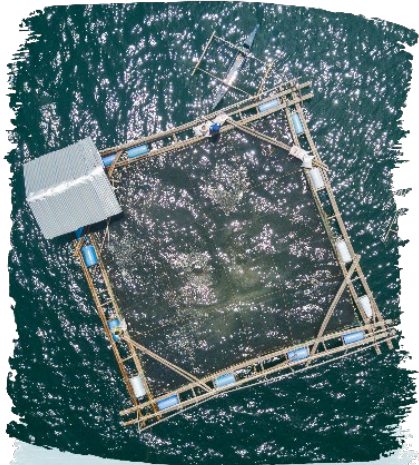
BLUE TRANSFORMATION

**A FAO Strategic Priority for all
aquatic environments**



Food and Agriculture
Organization of the
United Nations

BLUE TRANSFORMATION



**SUSTAINABLE
AQUACULTURE**



**SUSTAINABLE
FISHERIES**



**SUSTAINABLE
VALUE CHAINS**

OBJECTIVE 1: Sustainable aquaculture intensification and expansion satisfies global demand for aquatic food and distributes benefits equitably



TARGET: Achieve 30-45% growth in global aquaculture by 2030 with quality foods, produced sustainably

HOW: Scaling up and transferring knowledge through targeted development, especially in food deficit regions

GUIDELINES FOR SUSTAINABLE AQUACULTURE (GSA)

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Objective : a live document that will serve policymakers and practitioners on how to ensure sustainable aquaculture growth.

Components:

- 1. Actions for mainstreaming sustainable aquaculture
- 2. Actions to create an enabling environment
- 3. Actions for implementing best practices along the chain.
- 4. Actions for monitoring, data collecting, analyzing and reporting.
- 5. Case studies, information sources

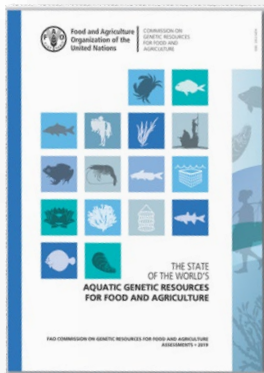
REGIONAL TECHNICAL PLATFORMS

- RTPs will provide for dialogue between experts and stakeholders;
- RTPs are digital assets that provide information and enable dialogue and exchange;
- RTPs will focus on dissemination of innovations and best practices;

HARNESSING AQUATIC BIODIVERSITY POTENTIAL



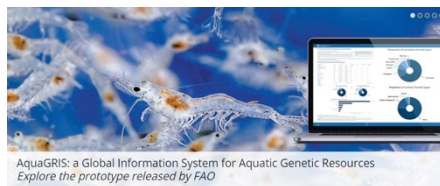
Global Assessment August 2019



Action Plan December 2021



Prototype Global Information System - March 2022



AquaGRIS: a Global Information System for Aquatic Genetic Resources
Explore the prototype released by FAO



FAO AQUACULTURE WORK (1)

Across Eastern

Caribbean – Aquaponics, shrimp, sea moss aquaculture, hatcheries

Colombia – Extension programmes, TLV

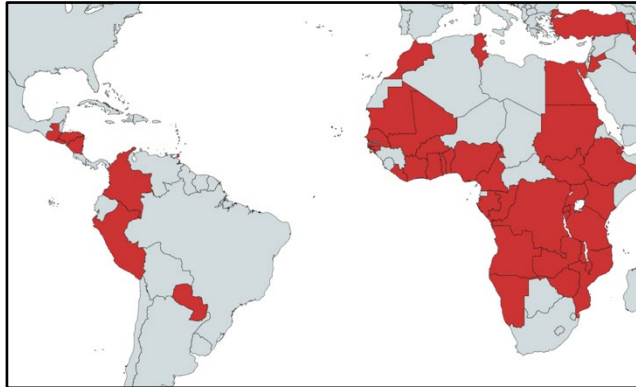
Honduras, Guatemala – Aquaculture and human nutrition, school feeding

Honduras, Guatemala, Paraguay – National Aquaculture Policy

Guatemala, El Salvador, Colombia, Paraguay – Social protection

Nicaragua – Climate change vulnerability and adaptation

Peru – Trout, scallops innovations



Angola, Ghana, Kenya, Nigeria, Uganda, Zambia – Tilapia health and TLV

Egypt, Ethiopia, Malawi, Namibia, Zambia, Kenya, Tanzania and Uganda – PMP/AB

Benin – Quality feeds

Burkina Faso, Guinea Bissau, Mali, Nigeria, Uganda – Rice/fish

Burkina Faso – Seed production

Cameroon, Congo, DRC, Gabon, Senegal, Zambia – Aquaculture as a business

Cameroon – Aquaponics

Cape Verde – Seaweed

Cote d'Ivoire – women empowerment, Tilapia hatchery

Djibuti – Clam aquaculture

Ghana – Tank-based aquaculture

Liberia – Sea sucker aquaculture

Mauritania – Development, hatcheries

Morocco – Demonstration centre

Mozambique – Integrated aquaculture

Nigeria – Youth, refugees and displaced training, fish-rice

Tanzania and Zanzibar – Seaweed, hatchery

Tanzania, Kenya, Uganda – Cage farming, vocational schools

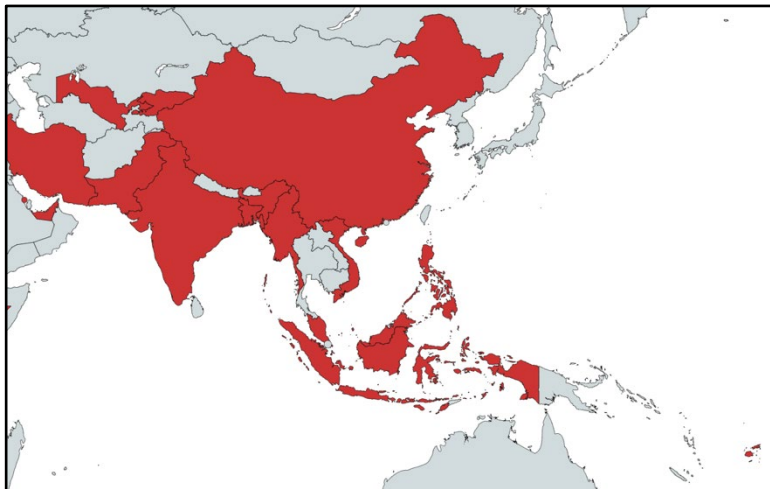
Togo – Commercial farm evaluations

Tunisia – Carrying capacity evaluation

Zambia – Enhanced production

Zimbabwe – Tilapia value chain

FAO AQUACULTURE WORK (2)



Bahrain, UEA – Arid aquaculture innovations

Iran – Marine cage culture

Jordan – Low cost aquaculture

Turkey – Sea cucumber

Kyrgyz Republic – Common carp

Uzbekistan – National development framework

Central Asia – Carp and trout feeds

Bangladesh – Integrated development, Seaweed

China, Indonesia, Viet Nam, Bangladesh – PMP/AB

China, Malaysia, the Philippines and Viet Nam – AMR

India, Indonesia, Viet Nam – AMR

Indonesia – shrimp traceability, IMTA

Myanmar – Small scale integrated aquaculture

Pakistan – National policy

Philippines, Viet Nam – Tilapia health and TLV policy

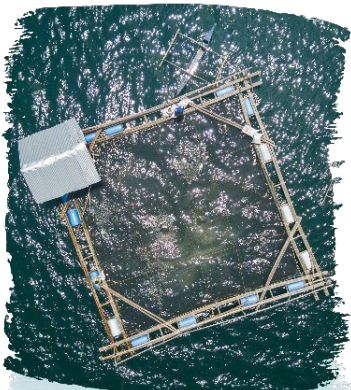
Samoa – Restocking giant clams

Tuvalu – Milkfish for subsistence

Fiji – Tilapia feed, Cyclone relief

16 countries in Asia and the Pacific – PMP/AB

BLUE TRANSFORMATION



**SUSTAINABLE
AQUACULTURE**



**SUSTAINABLE
FISHERIES**



**SUSTAINABLE
VALUE CHAINS**

Blue Transformation scenario

= 25.6 kg/person/yr by 2050

Failure to Transform scenario

= 18.5 kg/person/yr by 2050

2020

= ±20.2 kg/person/yr



Food and Agriculture
Organization of the
United Nations



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INTERNATIONAL YEAR OF
ARTISANAL FISHERIES
AND AQUACULTURE
2022

Thank you