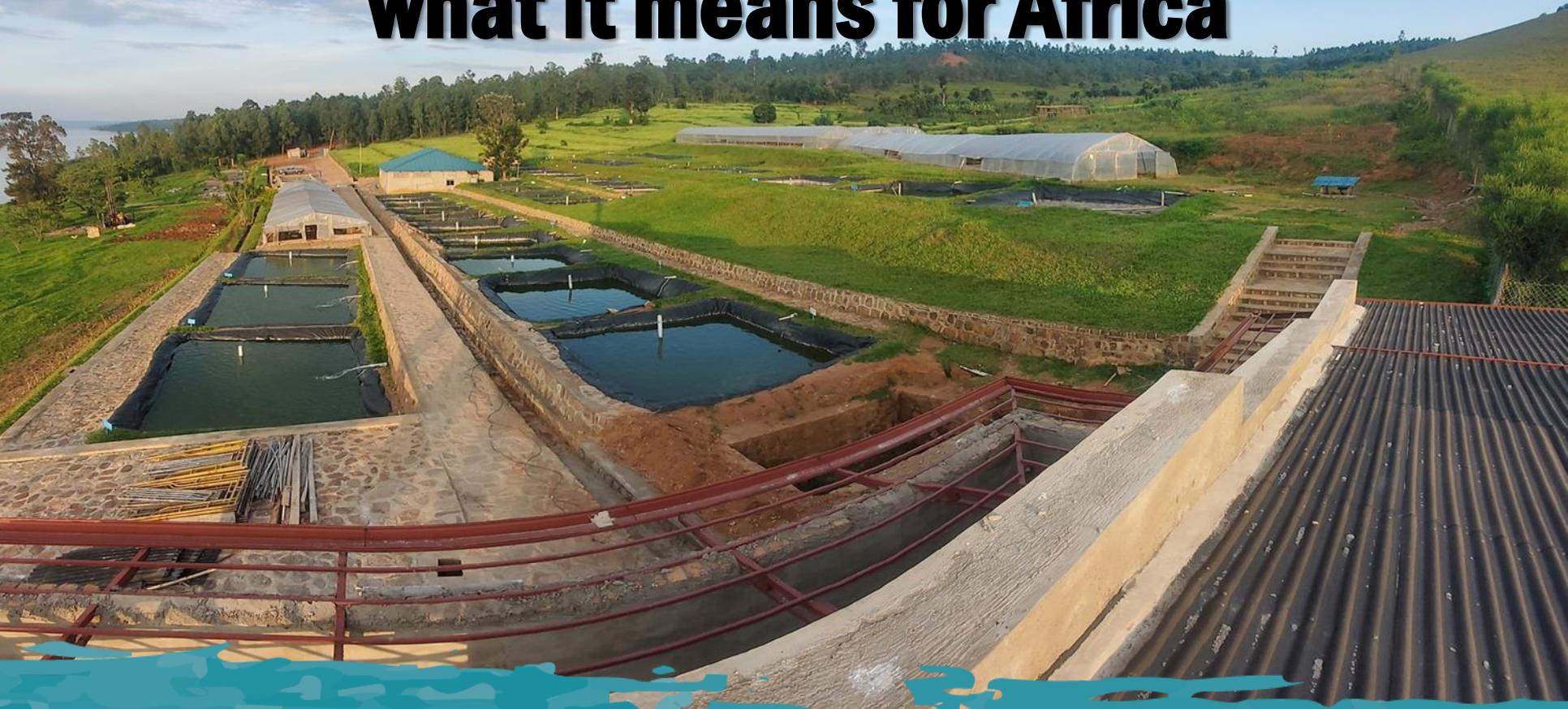


10 Guidelines for Sustainable Aquaculture, B nsformation, and forthcoming implementat what it means for Africa



Matthias Halwart

Team Leader

ional Processes for Sustainable Aquaculture



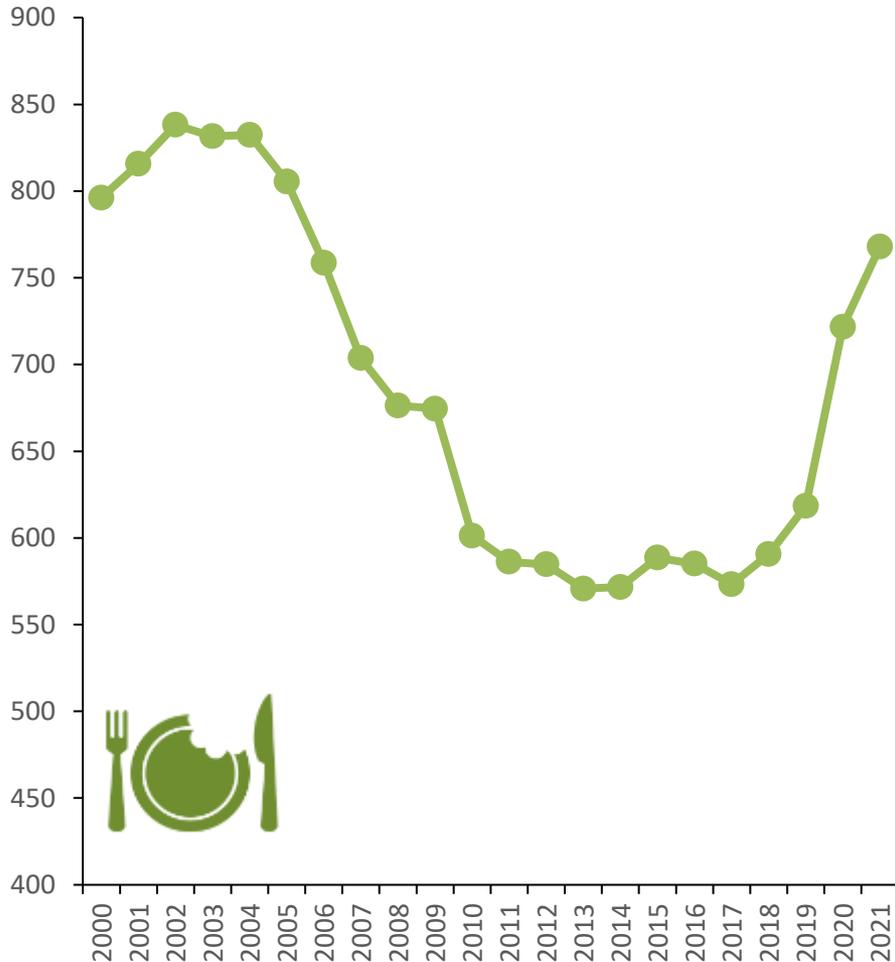
Food and Agriculture Organization
of the United Nations

THE GROWING CHALLENGE TO FEED THE WORLD



Food and Agriculture Organization
of the United Nations

Undernourished (millions)



FAO data



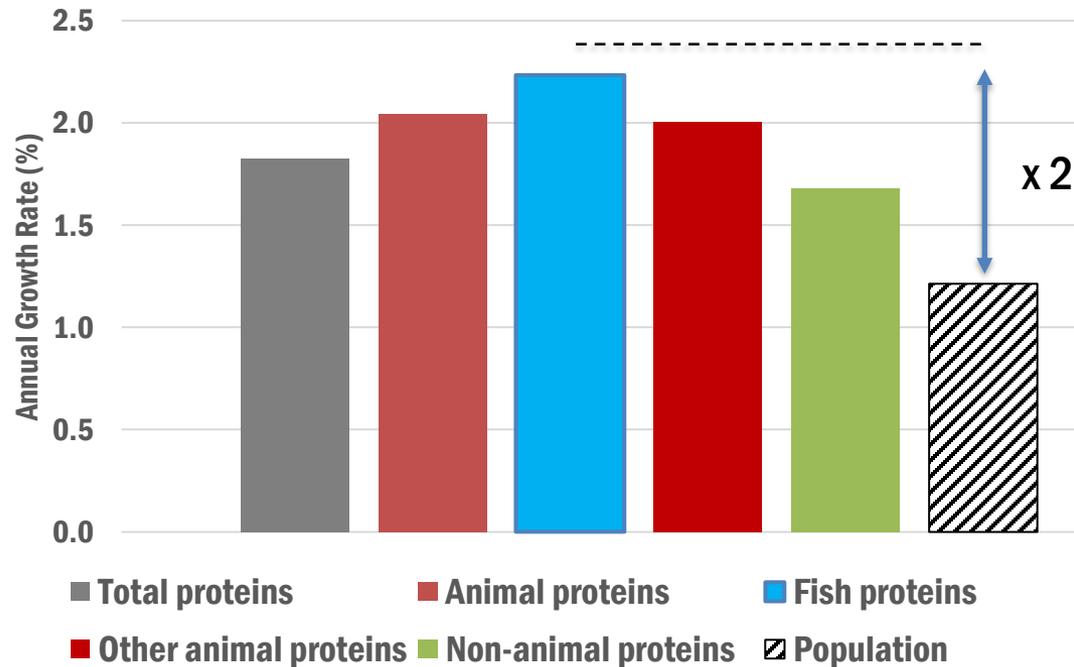
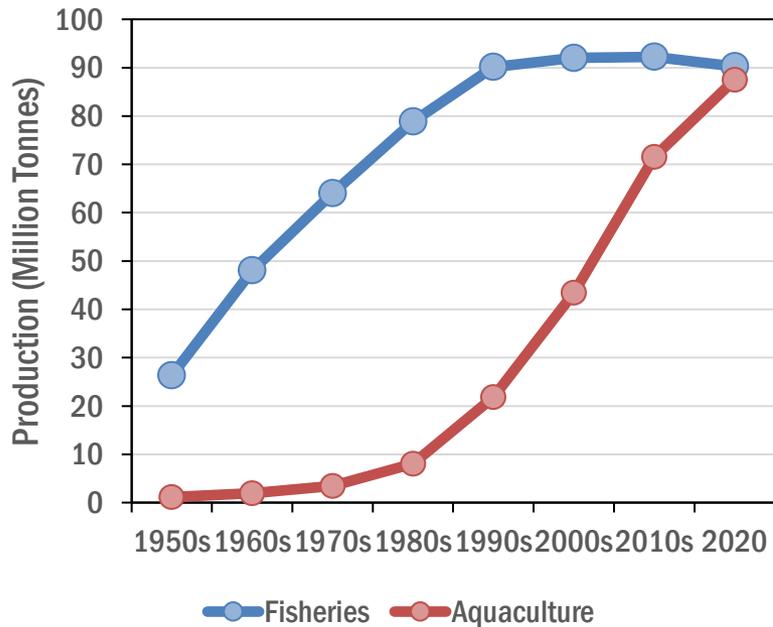
AQUATIC FOODS: TRANSFORMING AND IMPACTFUL



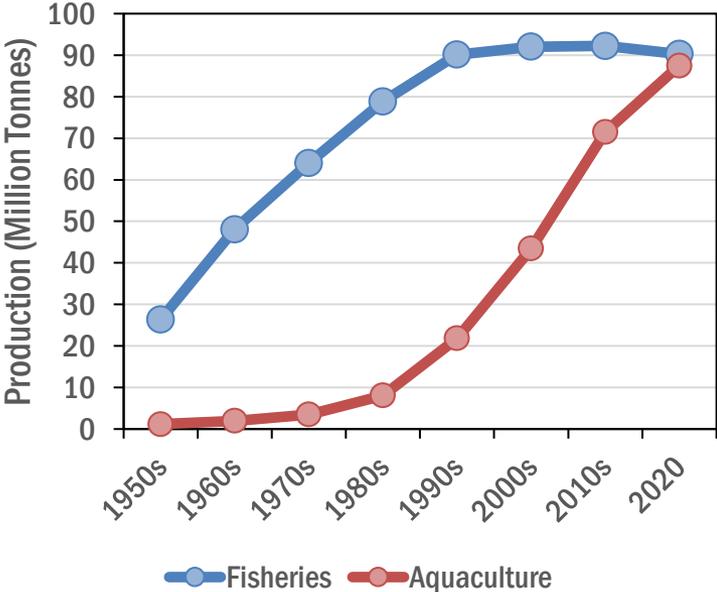
Food and Agriculture Organization of the United Nations



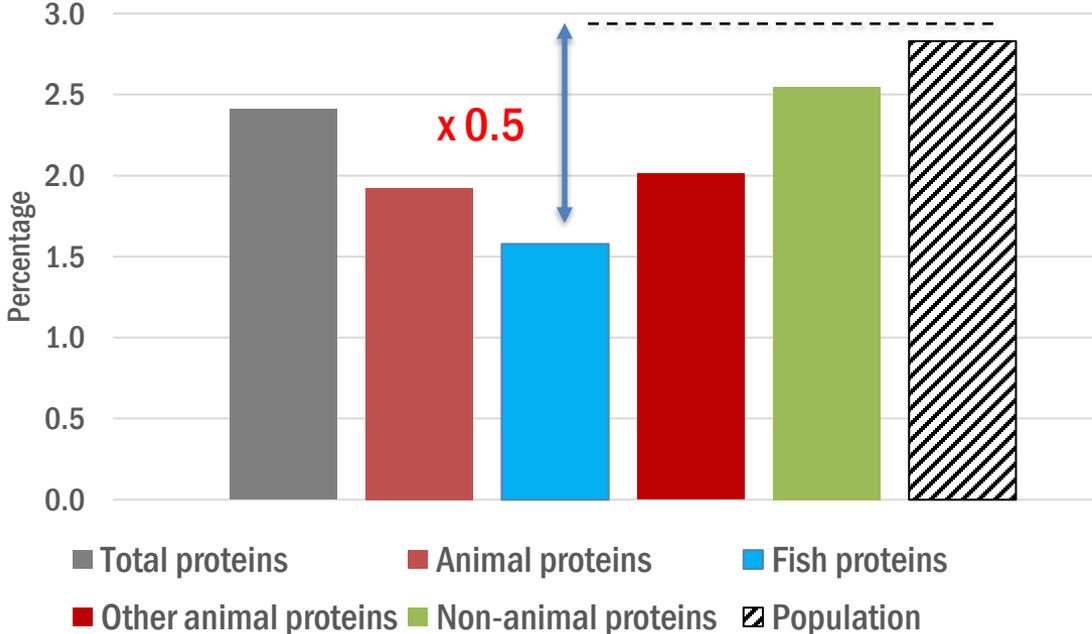
Consumption Aquatic Animal Foods (Global, 2010-2020)



AQUATIC FOODS: TRANSFORMING AND IMPACTFUL – EVERYWHERE?



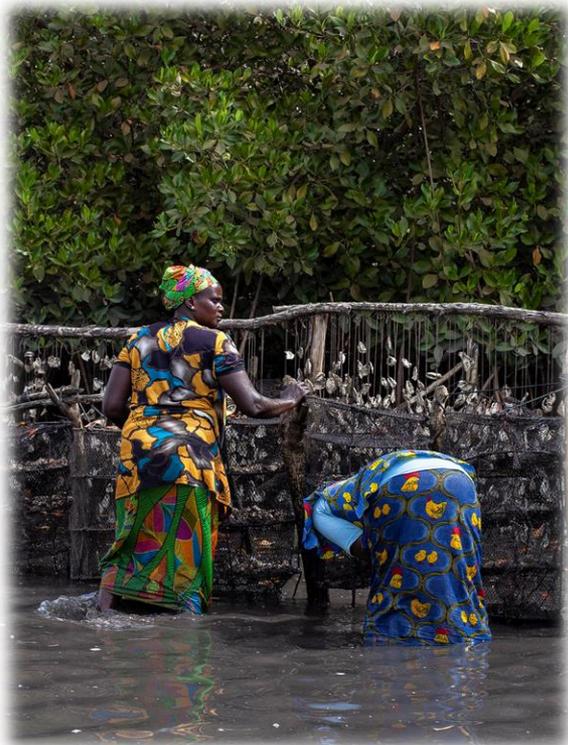
Consumption Aquatic Animal Foods (Africa, 2010-2020)



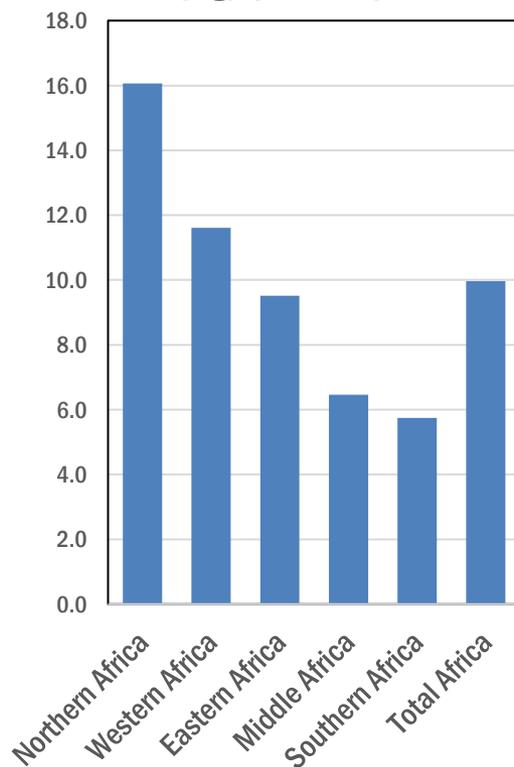
AQUACULTURE versus CAPTURE FISHERIES in AFRICA



Food and Agriculture Organization
of the United Nations

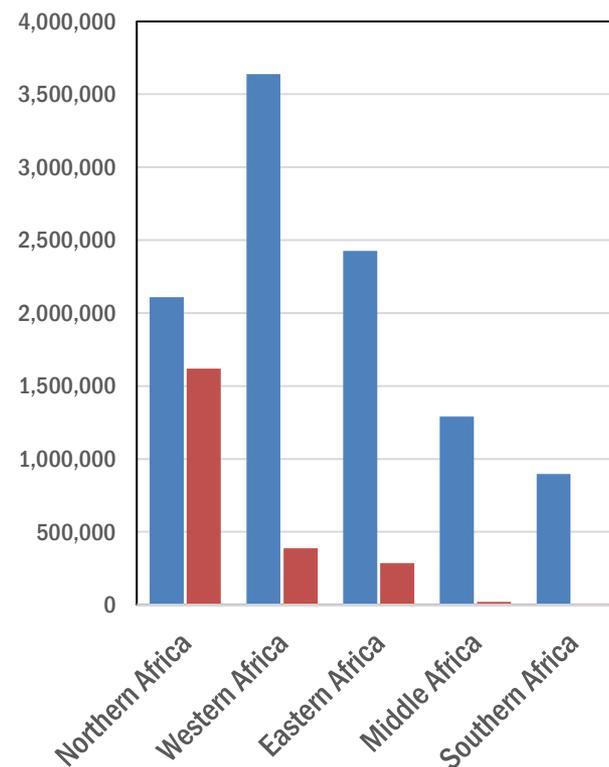


2019 Per capita consumption of aquatic foods in Africa (kg/person)*



* Excluding aquatic plants

2021 Aquatic food production in Africa (t)*

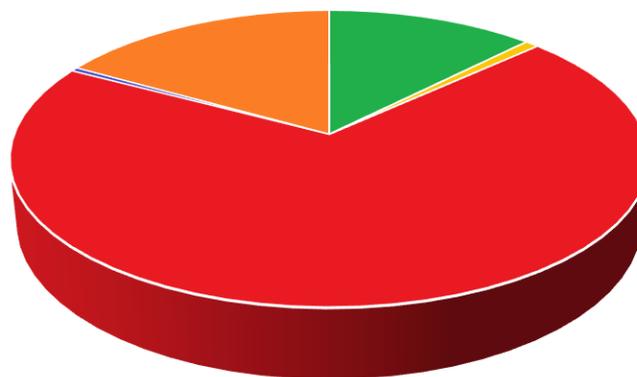


Capture fisheries

Aquaculture

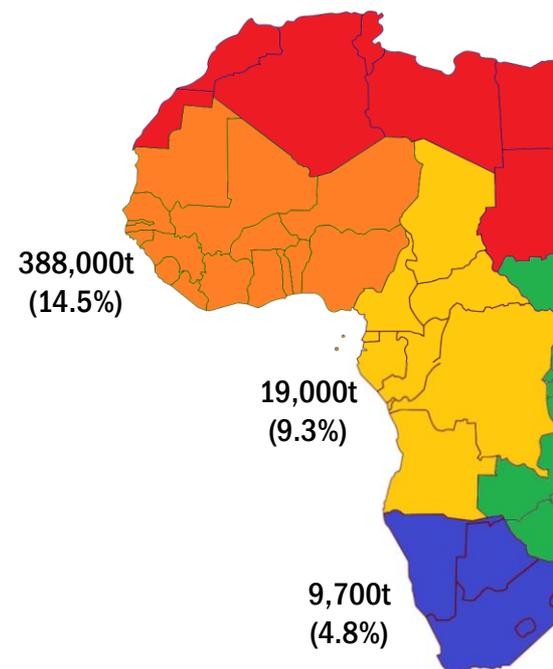


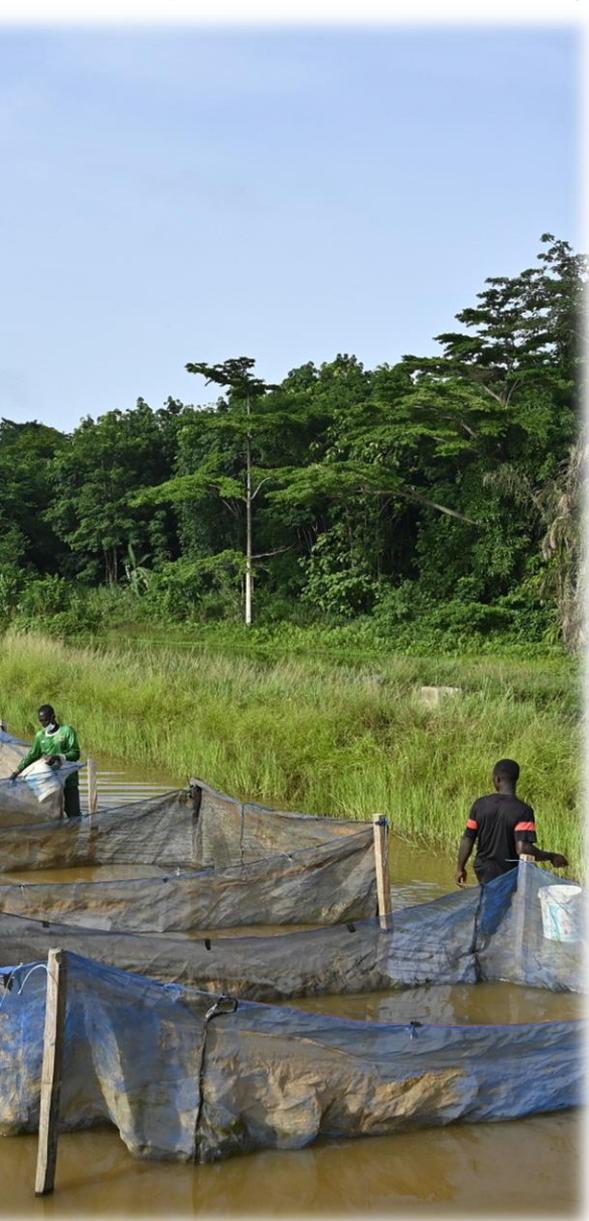
2021 Aquaculture production in Africa (%)



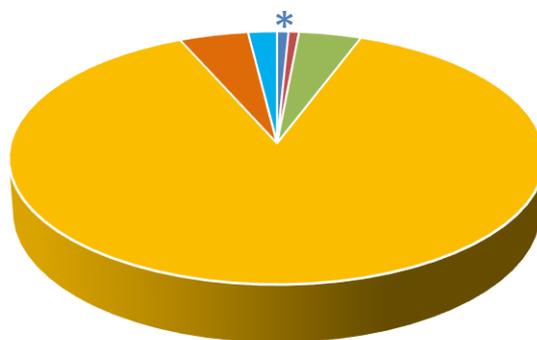
- Eastern Africa
- Middle Africa
- Northern Africa
- Southern Africa
- Western Africa

Aquaculture production (t) Average annual growth rate 2000



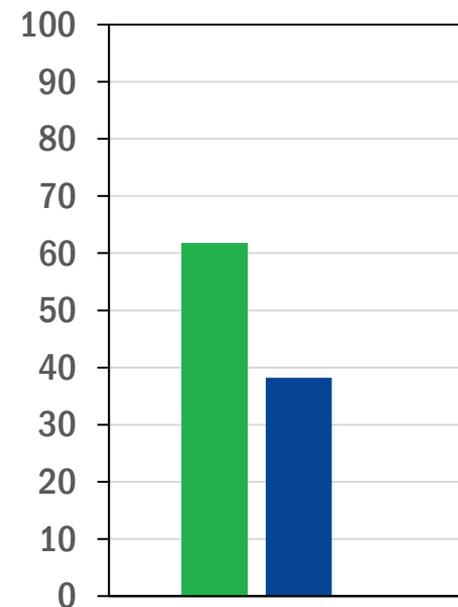


2021 Aquaculture Production By Region (%)



- Sub-Saharan Africa
- Northern America
- Latin America and the Caribbean
- Asia Pacific
- Europe and Central Asia
- Near East and North Africa

2021 Aquaculture Production By Environment



Global

■ Inland ■ Marine

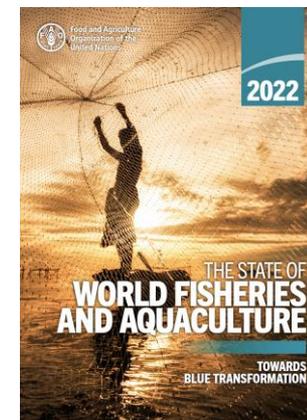
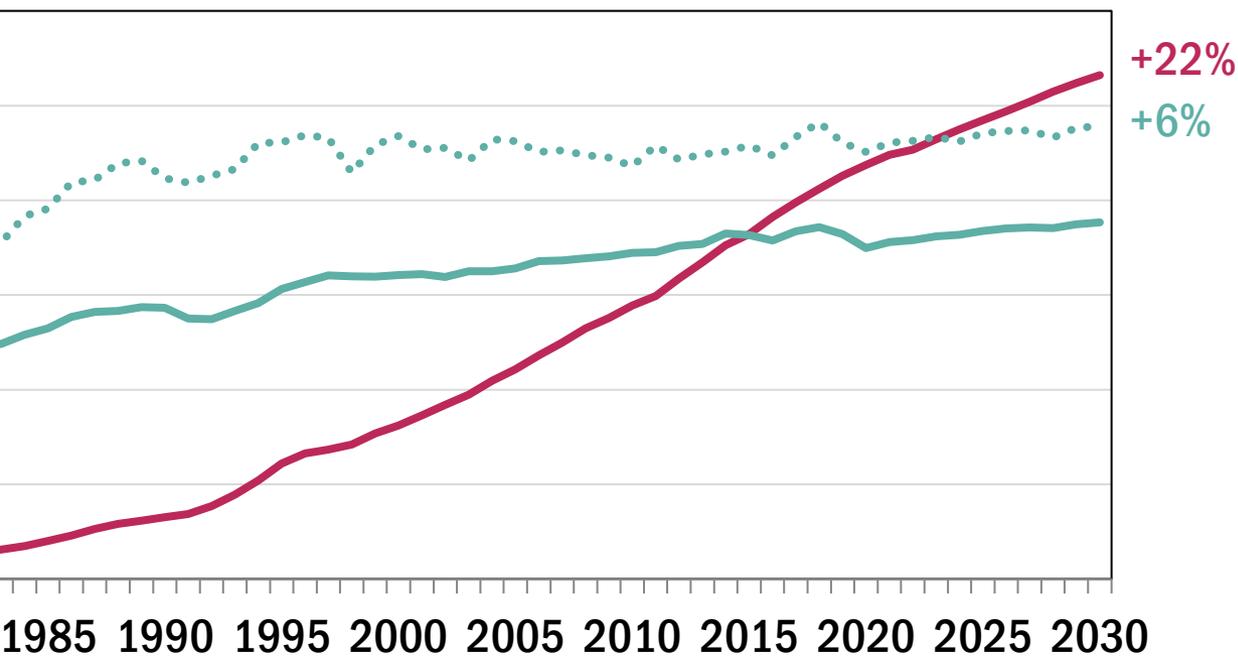
PRODUCTION OF AQUATIC ANIMALS TO GROW BY 14% BY 2030



Global capture fisheries and aquaculture production, 1990-2030, under *Business as Usual*

Production (live weight)

- Aquaculture for human consumption
- ⋯ Total capture fisheries
- Capture fisheries for human consumption



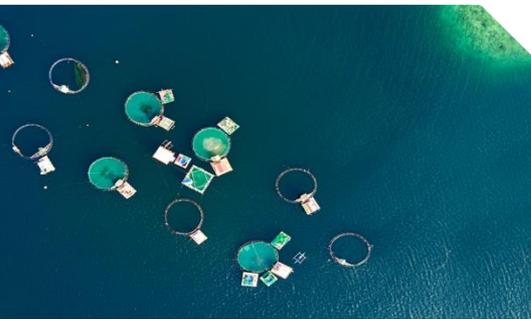
FAO projections of per capita consumption of fish and aquaculture products

	2020	2030
World	20.2kg	24.8kg (+22%)
Africa	9.9kg	12.1kg (+22%)
S-S Africa	8.6kg	10.8kg (+25%)

An aerial photograph of a coastal village. The houses have colorful roofs in shades of red, white, and blue. The houses are built on a narrow strip of land, with a dense forest of green trees behind them. The water is a deep green color, and several traditional outrigger canoes are visible in the water. The text 'BLUE TRANSFORMATION' is overlaid on the left side of the image, with 'BLUE' in white on a dark blue brushstroke and 'TRANSFORMATION' in white on a teal brushstroke.

BLUE TRANSFORMATION

A VISION FOR A MORE
SUSTAINABLE, PRODUCTIVE,
EQUITABLE AND IMPACTFUL
SECTOR.



OBJECTIVE 1

Sustainable aquaculture
production and expansion
to meet the growing global demand for aquatic
products and distributes benefits
equitably.

OUTCOME

Double sustainable aquaculture production
and productivity by at least 35 percent by
2030, especially in food deficit

HOW TO UNLOCK THE POTENTIAL OF AQUACULTURE IN AFRICA



Governance



Finance



Technological innovation



Biosecurity and disease control



Human capacity



Value chain development

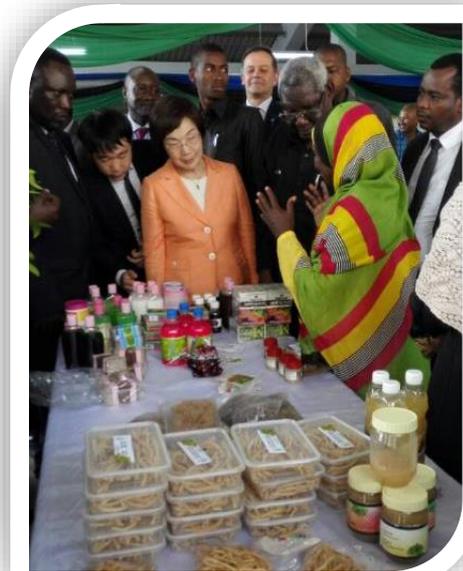
HOW IS FAO CONTRIBUTING TO UNLOCKING THE POTENTIAL?



Strategic, policy, development strategies - Most countries in Africa
Reviews, regulation reviews, consultations - (Rwanda, Guinea, Malawi, Senegal, Uganda, South Africa, Tanzania, Kenya, etc.)

Workshops on Aquaculture Private Investments and Aquaculture in Sub-Saharan Africa

- Trainings on **Planning for commercial Aquaculture Development** - Cameroon, Zambia, South Africa, Uganda, Senegal, Rwanda
- Tools to assess and determine the **economic and financial viability and business plans** - Exposure to financial institutions
- **Strengthening development and innovative Public Private Partnerships** (South Africa, Rwanda, Guinea, Madagascar, Malawi, Senegal)
- **Technical guides and support for enhancing private investment in aquaculture** - Sub-Saharan Africa (Senegal, Ghana and Nigeria, Kenya, Rwanda)





Start up kits – feeds and seeds, Mini RAS, hatcheries, mini-feed stock, linked with **capacity building programs** – Uganda, Rwanda, Guinea Bissau, Senegal, Mozambique
Focus on **aquafeed solutions** (Egypt, Ghana, Kenya, Uganda, East Africa, Senegal, Nigeria, etc.)
Integration in Ethiopia, Rwanda, Burundi, Nigeria, **Aquaponics**
black soldier fly in feeds (Zimbabwe, Nigeria, etc.)
In aquaculture, demonstration of BUNA system (South Africa, Uganda, etc.)

- National Strategies on **Aquatic Animal Health (NSAAH)** - Zambia, Uganda, Tanzania, Kenya, Uganda, Namibia, SADC, ...
- **Biosecurity and Disease Diagnostics protocols** at farm and laboratory - Zambia, Ghana, Uganda...
- Upgrade of the **food safety regulatory frameworks** to establish a Safety Control System - Zambia
- Risk reduction and response to **Tilapia Lake Virus (TiLV)**: Africa, Nigeria, Kenya, Uganda, and **Epizootic Ulcerative Syndrome**
- Strengthen **fish disease diagnosis** (surveillance, monitoring)





of a **training curriculum and practical manual** in sustainable (for all Africa);

aquaculture best practices and business - All Southern and countries, (Central - Cameroon, Gabon; West - Senegal, Nigeria)

Partnerships Models to boost youth interest in Aquaculture and in training programmes

Technical schools for aquaculture labours education- EU-True Fish (Zambia, Uganda)

non-formal **Farmer Field School** type of approaches (Nigeria)

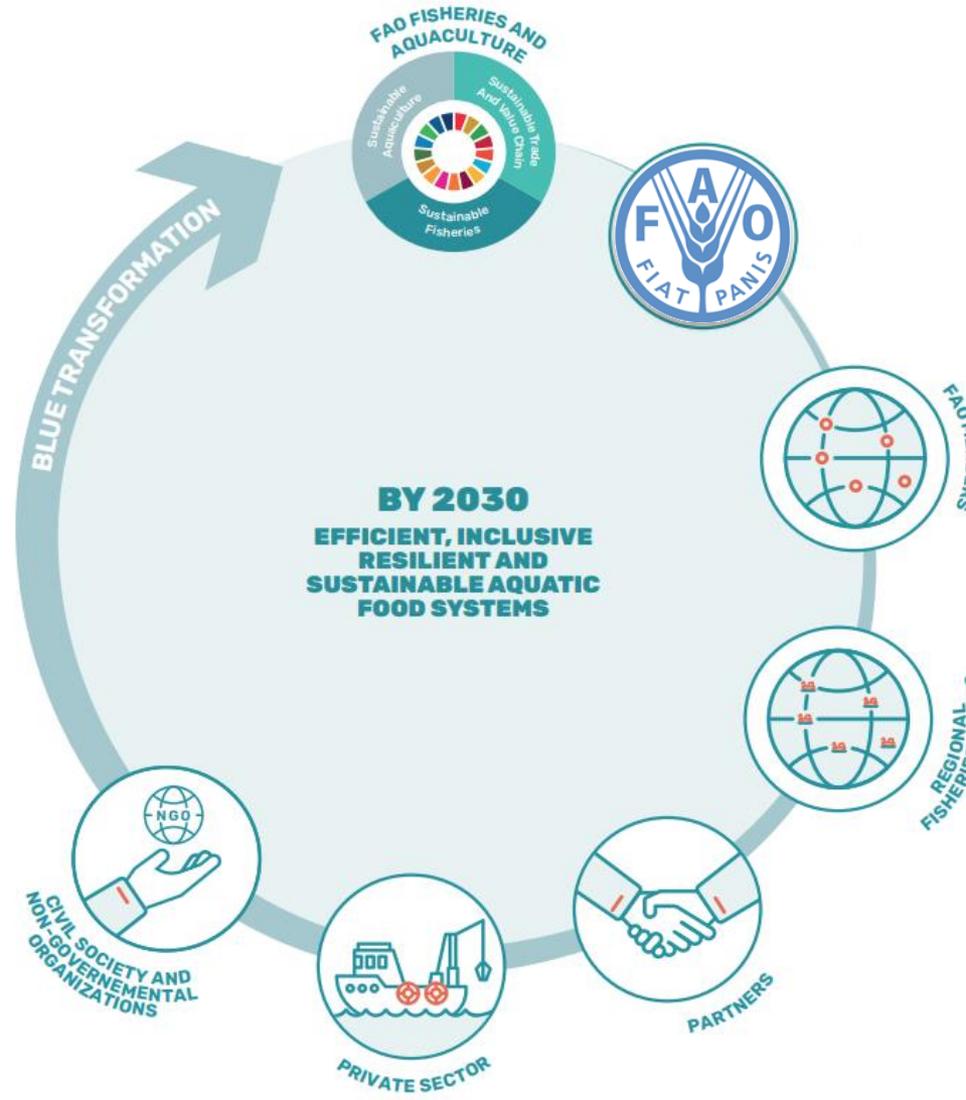
- Establish **fish marketing centres**: deep freezers, display boxes, tricycles for transportation, etc.
- Establish **fish value addition and training centres** equipped with racks, smoking shades, smoking kilns and packaging facilities
- Establishment and execution of trainings for inspectors and farmers on **hygiene, post-harvest, fish handling and value addition**
- Promotion of **FAO Thiaroye processing technique (FTT)** for fish (Nigeria, Ghana, Senegal, etc.)



and Agriculture
ization of the
Nations

BLUE TRANSFORMATION

Roadmap 2022-2030
A vision for FAO's work on aquatic food systems





S FOR SUSTAINABLE AQUACULTURE – and where?

led by FAO Members at COFI:AQ
technical outputs of
Global Aquaculture Conference
> 1700 stakeholders
incorporated from Expert Consultations,
Workshops and Task Force
led and adopted with
representatives at COFI:AQ XII
Toluca, Mexico, in May 2023



22-25 September 2021
Shanghai, China

#GCA2020



Food and Agriculture
Organization of the
United Nations



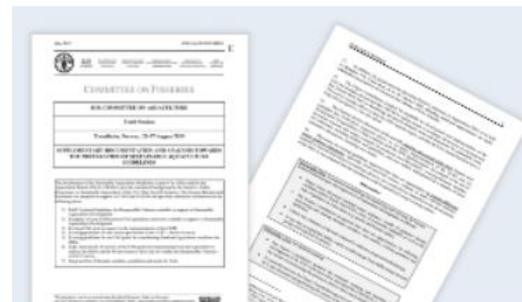
SUSTAINABLE
DEVELOPMENT
GOALS



中华人民共和国农业农村部
Ministry of Agriculture and Rural Affairs of the People's Republic of China



<https://aquaculture2020.org/>



S FOR SUSTAINABLE URE – why, what and where?

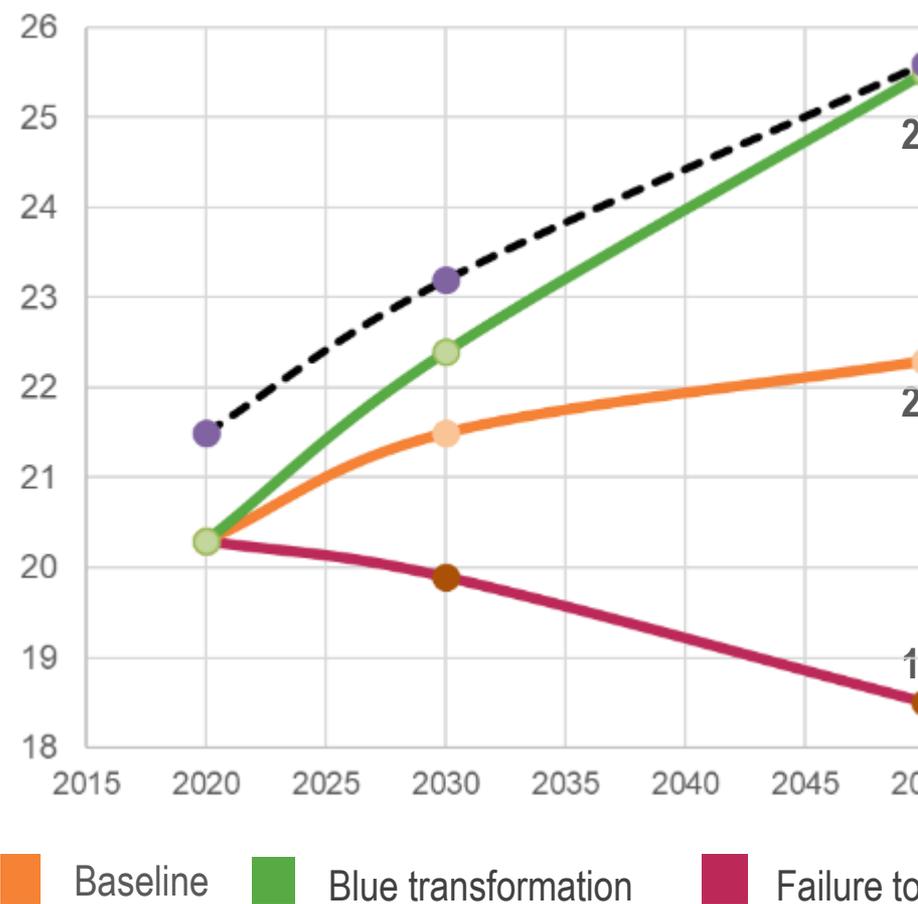
ance to government authorities and
ers to:
ge and enable aquaculture to effectively
cipate in Agenda 2030 and its SDGs
FAO Members to build capacities and to
op their aquaculture sustainably
on the lessons learned from a series of
uccessful case studies



<https://www.fao.org/about/meetings/cofi-sub-committee-on>



Per capita consumption (kg/yr) (Scenarios to 2050)





Thank you for your attention