



Food and Agriculture
Organization of the
United Nations

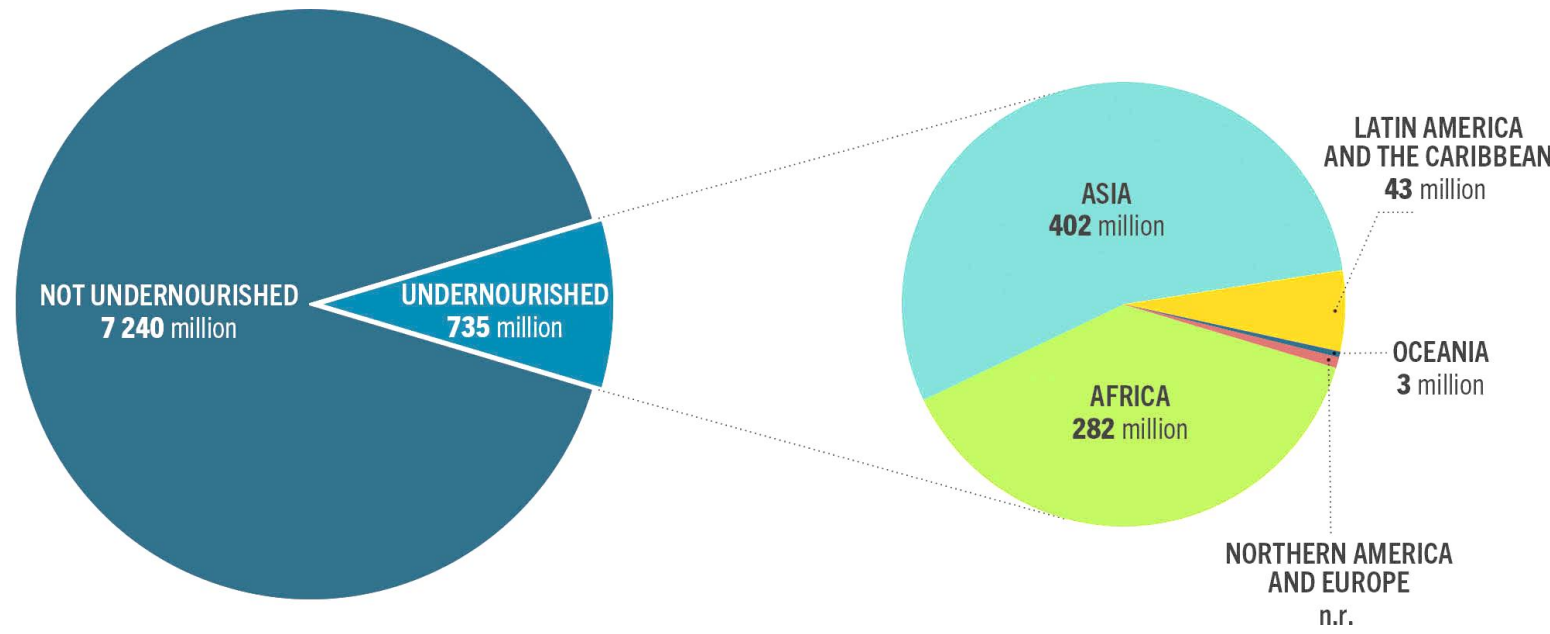
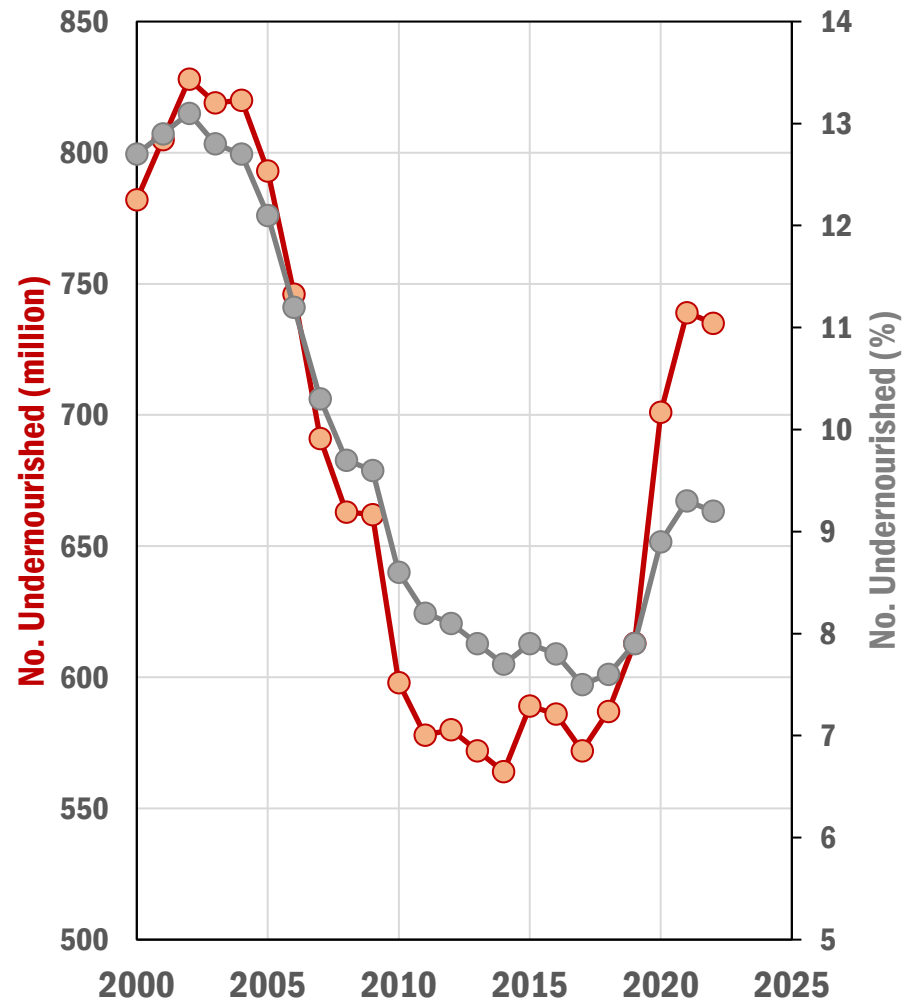
BLUE TRANSFORMATION

A VISION FOR FAO'S WORK ON AQUATIC FOOD SYSTEMS

Audun Lem, PhD
Deputy Director, Fisheries and Aquaculture, FAO



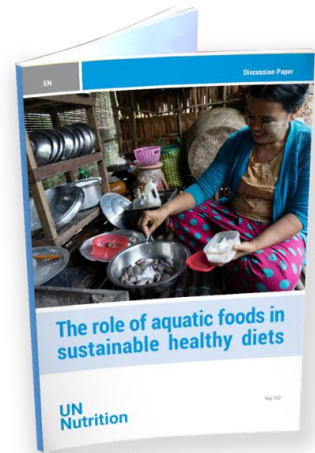
LOOMING HUNGER CRISIS



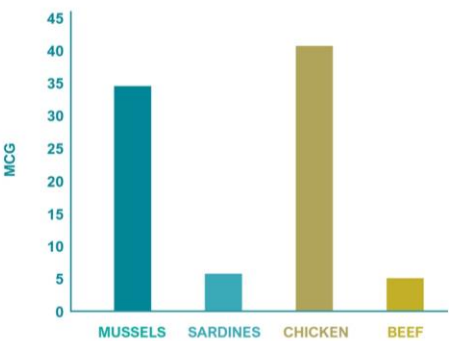
**Aquatic food can
be part of the
solution**



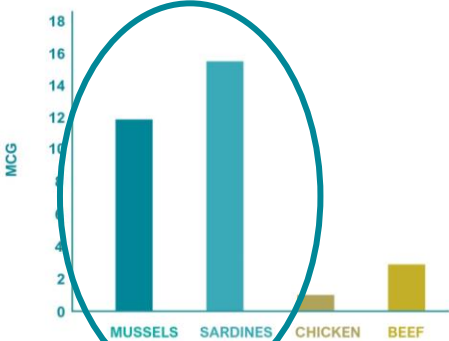
NUTRITION



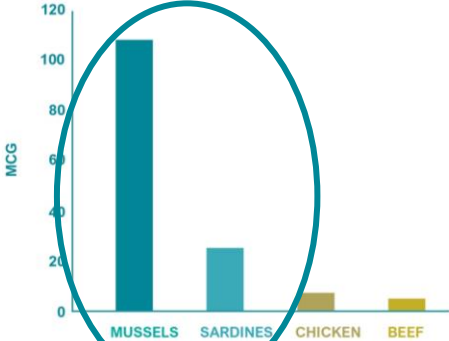
VITAMIN A (mcg per 100g serving)



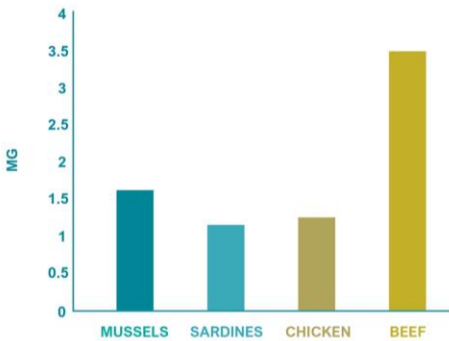
VITAMIN B12 (mcg per 100g serving)



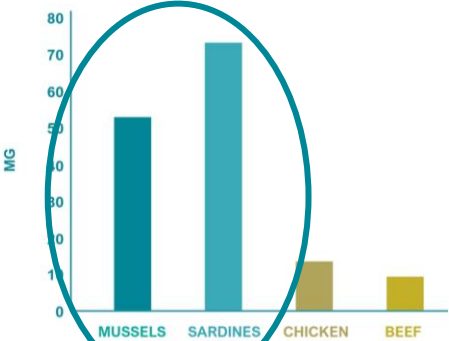
IODINE (mcg per 100g serving)



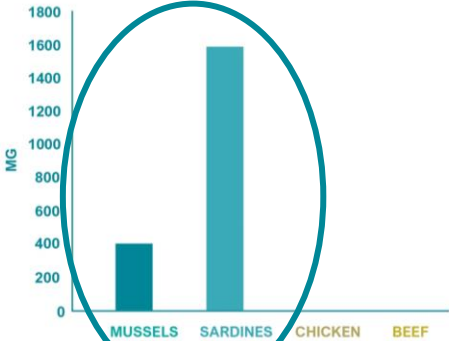
ZINC (mg per 100g serving)



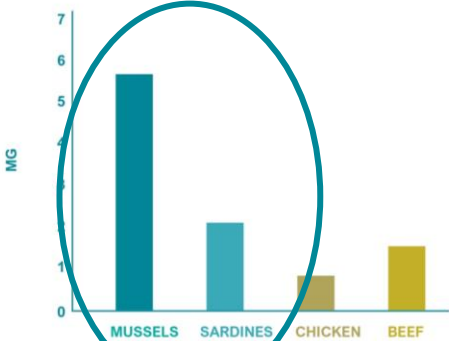
CALCIUM (mg per 100g serving)



OMEGA-3 FATTY ACIDS
(mg per 100g serving, EPA and DHA only)

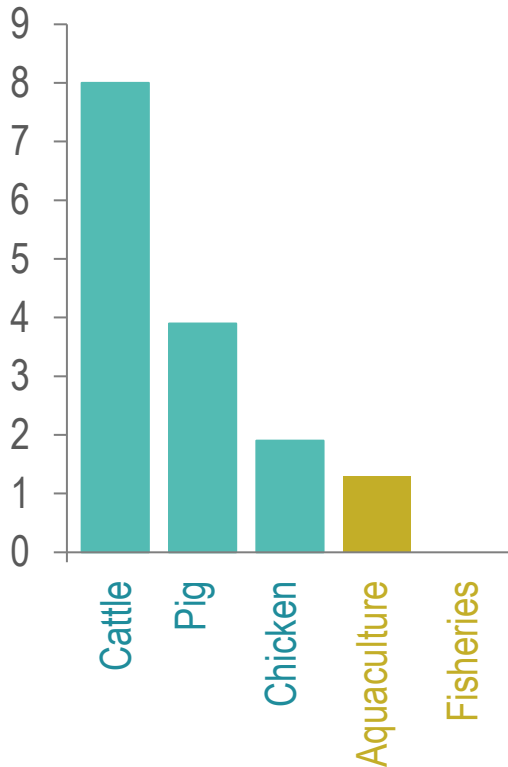


IRON (mg per 100g serving)



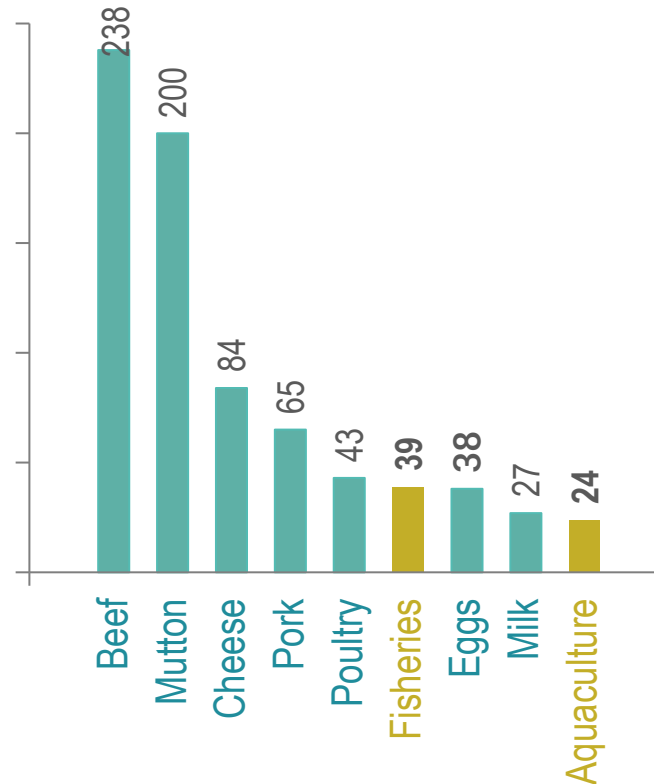
ENVIRONMENT AND BIODIVERSITY

CONVERSION EFFICIENCY
(KG FEED/ KG LIVE WEIGHT)



Source: Fry et al., 2018

GHG EMISSIONS INTENSITY
(G CO2 EQ./G PROTEIN)



Source: Petsko, 2021

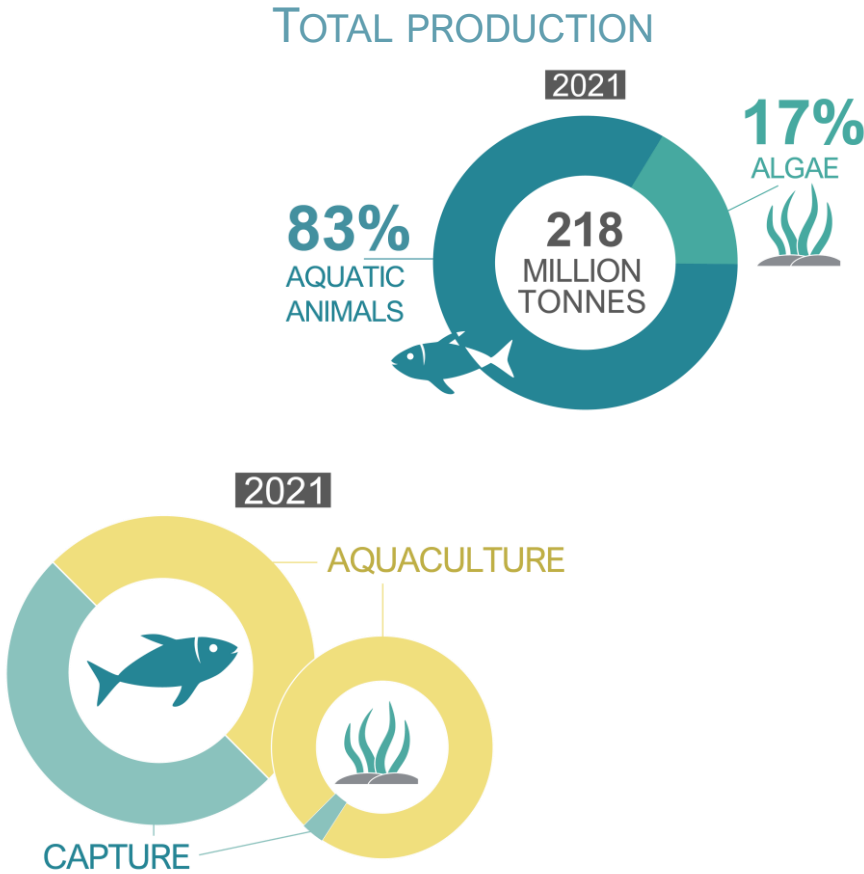
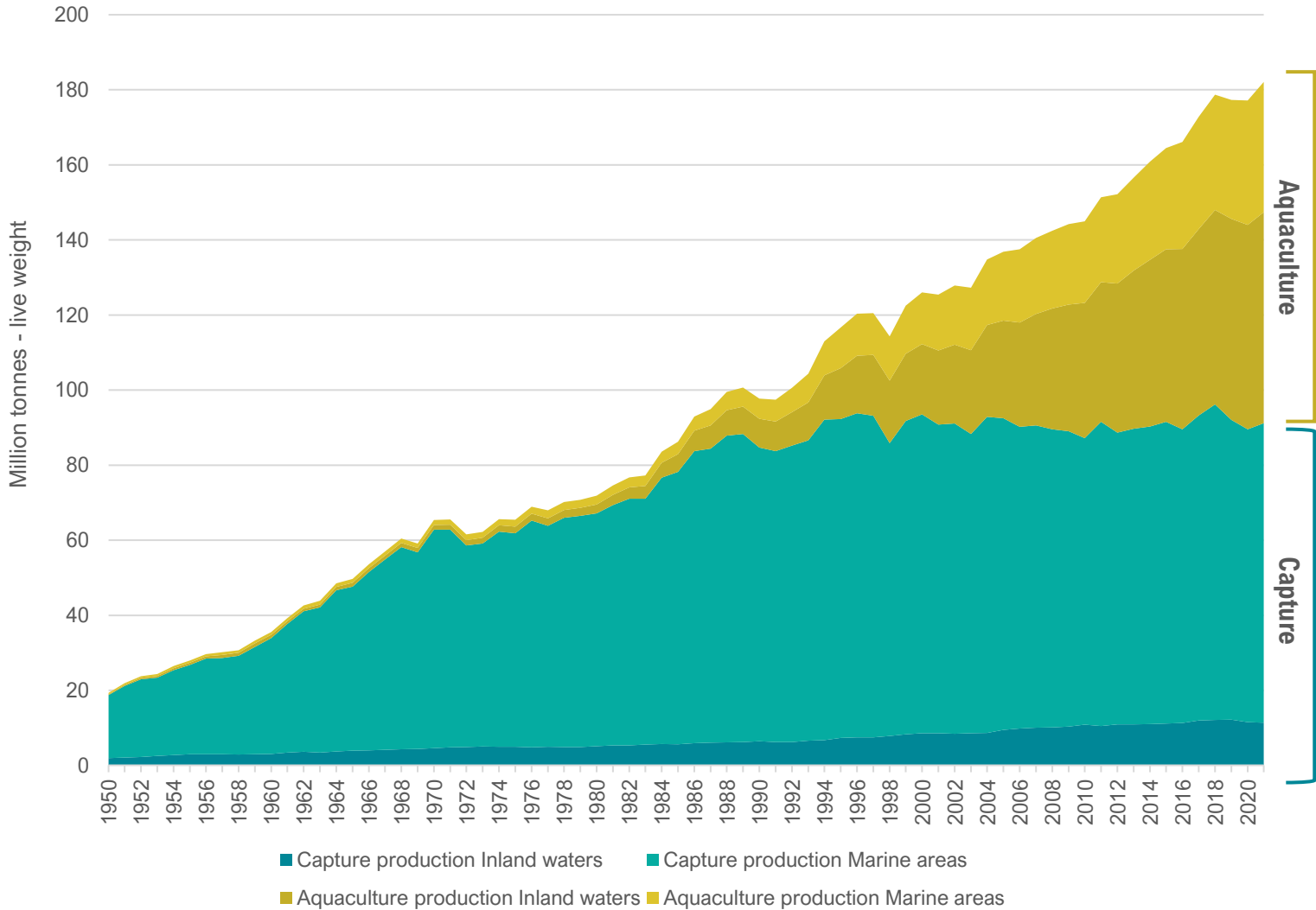
BIODIVERSITY Aquatic Production

3 598 spp.

- **3 417** capture fisheries
- **710** aquaculture

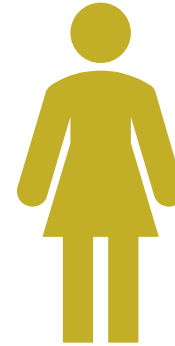
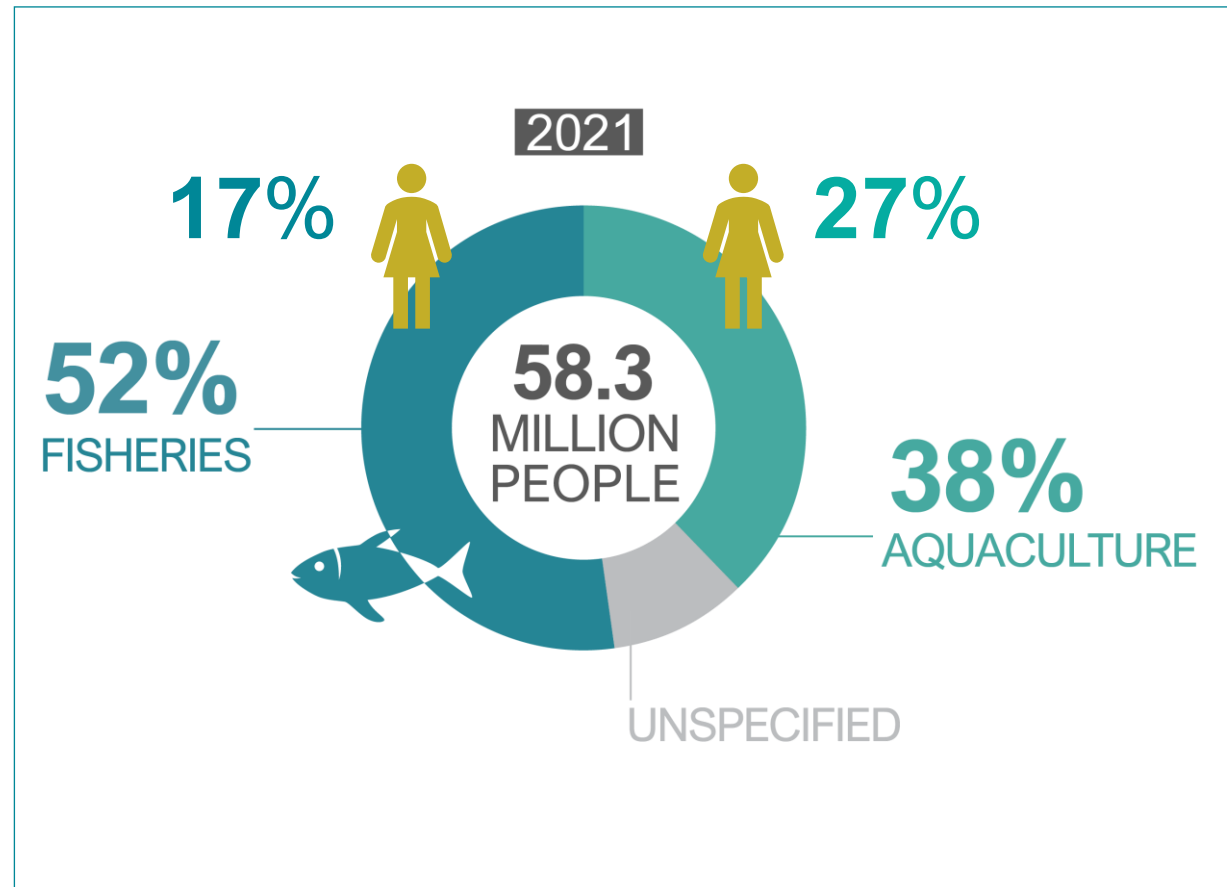
Source: FAO, 2024

TOTAL FISHERIES AND AQUACULTURE PRODUCTION 2021



EMPLOYMENT

PRIMARY SECTOR



50%

When post-harvest sector is considered

600 MILLION PEOPLE

Primary and secondary sector (post-harvest), subsistence and their dependents.

LOCAL ECONOMIES

TOTAL FIRST SALE VALUE IN 2021=
USD 428 BILLION



AQUACULTURE
USD 281 billion

CAPTURE FISHERIES
USD 147 billion

STATES AND TERRITORIES THAT
TRADE IN THE SECTOR IN 2021 = **207**

TRADE VOLUME AND VALUE IN 2021
(Aquatic Animals)

66.6 Mt

Live weight equivalent

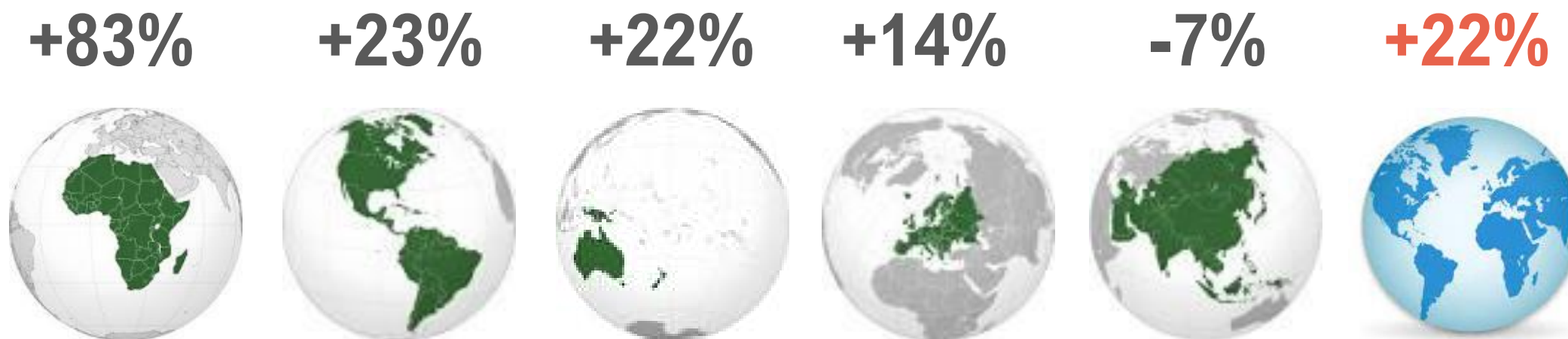
USD 176 Billion

In value



17% increase

HOW MUCH MORE FOOD IS NEEDED BY 2050?



BLUE TRANSFORMATION



THE NEED FOR A BLUE TRANSFORMATION



OBJECTIVE 1

Sustainable aquaculture intensification and expansion satisfies global demand for aquatic foods and distributes benefits equitably.

OUTCOME

Sustainable aquaculture production grows by at least 35 percent by 2030, especially in food deficit regions.



OBJECTIVE 2

Effective management of all fisheries delivers healthy stocks and secures equitable livelihoods.

OUTCOME

100 percent of marine and inland fisheries is under effective management and IUU fishing is eradicated.



OBJECTIVE 3

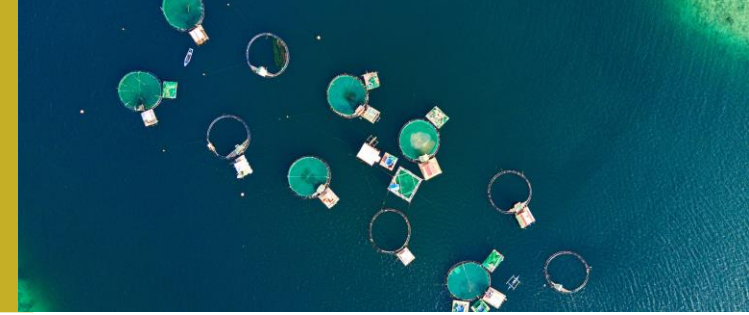
Upgraded value chains ensure the social, economic and environmental viability of aquatic food systems.

OUTCOME

Loss and waste halved by 2030, more transparency and traceability is ensured for more inclusive and equitable returns.

OBJECTIVE 1

SUSTAINABLE AQUACULTURE INTENSIFICATION AND EXPANSION SATISFIES GLOBAL DEMAND FOR AQUATIC FOODS AND DISTRIBUTES BENEFITS EQUITABLY.



GUIDELINES FOR SUSTAINABLE AQUACULTURE



REGULATORY FRAMEWORKS

GUIDANCE BASED ON:

- BEST TECH DEVELOPMENTS
- IMPROVED ENVIRONMENTAL PERFORMANCE
- REGIONAL AND NATIONAL BEST PRACTICES

IMPROVING AQUACULTURE BIOSECURITY



PROGRESSIVE MANAGEMENT PATHWAY

IMPROVING BIOSECURITY WITH

- GROUND-BREAKING INITIATIVES
- COST-EFFECTIVE MANAGEMENT OF RISKS

AQUAGRIS



>600 AQUACULTURE SPECIES

DATA RELATED TO:

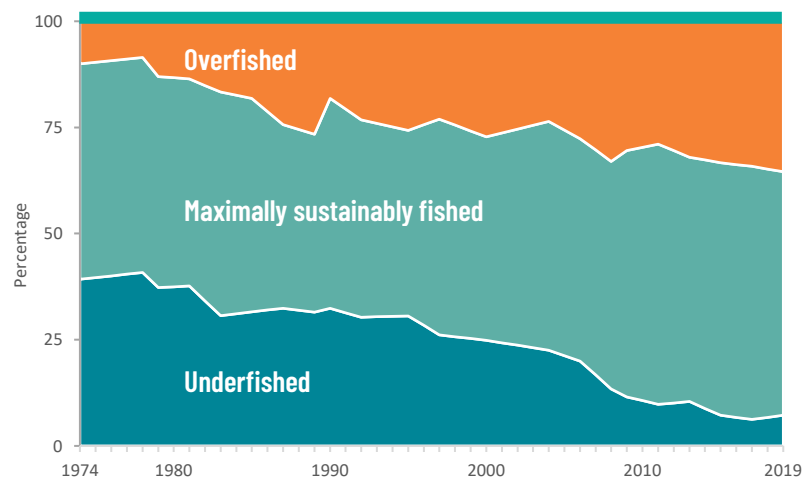
- AQUATIC GENETIC RESOURCES
- CONSERVATION AND SUSTAINABLE USE

OBJECTIVE 2

EFFECTIVE MANAGEMENT OF ALL FISHERIES
DELIVERS HEALTHY STOCKS AND SECURES EQUITABLE
LIVELIHOODS.



DATA COLLECTION, ANALYSIS AND REPORTING



CAPACITY DEVELOPMENT FOR

- EVIDENCE-BASE POLICY
- SCIENCE-BASED DECISION MAKING
- SUSTAINABILITY INDICATORS

EAF NANSEN PROGRAMME

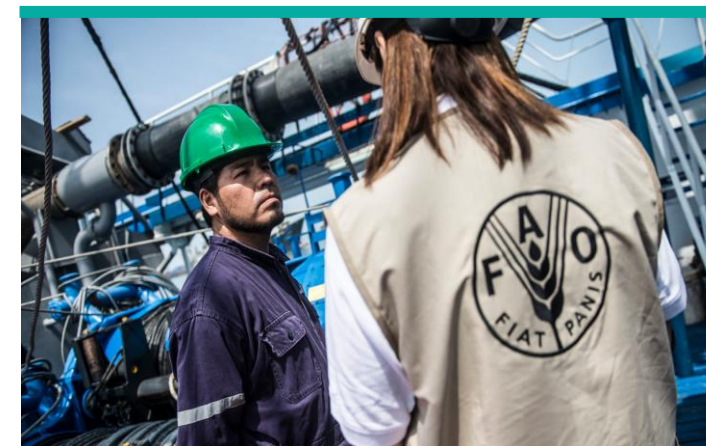


>45 YEARS OF COLLABORATION IN 32 AFRICAN COUNTRIES

TO BUILD CAPACITY IN:

- FISHERY BIOLOGY
- EAF MANAGEMENT
- STOCK ASSESSMENT

GLOBAL POLICY INSTRUMENTS



GUIDELINES AND AGREEMENTS

- AGREEMENT ON PORT STATE MEASURES (PSMA)
- SSF GUIDELINES
- CATCH DOCUMENTATION SCHEMES, ETC.

OBJECTIVE 3

UPGRADED VALUE CHAINS ENSURE THE SOCIAL, ECONOMIC AND ENVIRONMENTAL VIABILITY OF AQUATIC FOOD SYSTEMS.



FISH4ACP



VALUE CHAINS ANALYSIS FOR UPGRADED VALUE CHAINS

- ECONOMIC IMPROVEMENTS
- ENVIRONMENTAL SUSTAINABILITY
- FOOD LOSS AND WASTE REDUCTION
- SOCIAL INCLUSIVENESS

GUIDANCE ON TRACEABILITY



END-TO-END TRACEABILITY THROUGH CTEs & KDEs

- DEFINE PARAMETERS OF TRACEABILITY
- CRITICAL FOR MARKED ACCESS, FOOD SAFETY AND ORIGIN

GUIDANCE ON SOCIAL RESPONSIBILITY

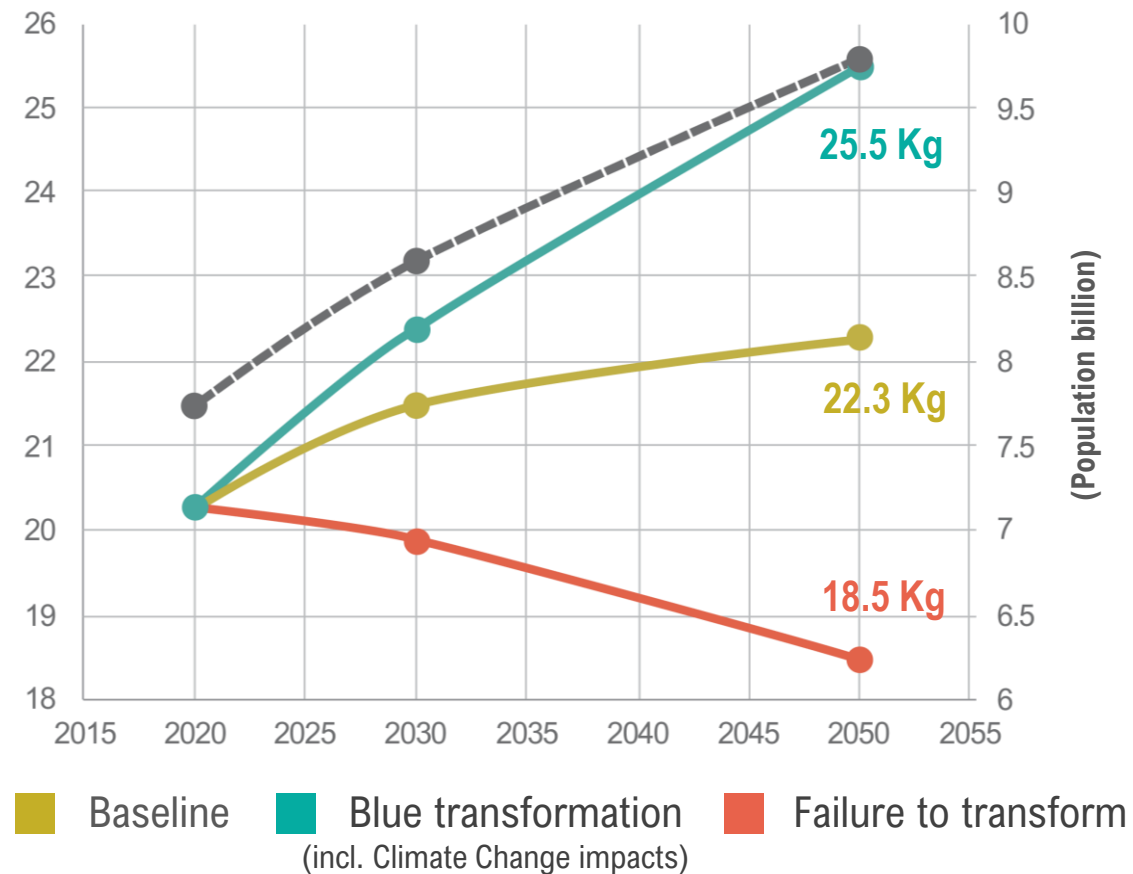


PROMOTING DECENT WORKING CONDITIONS

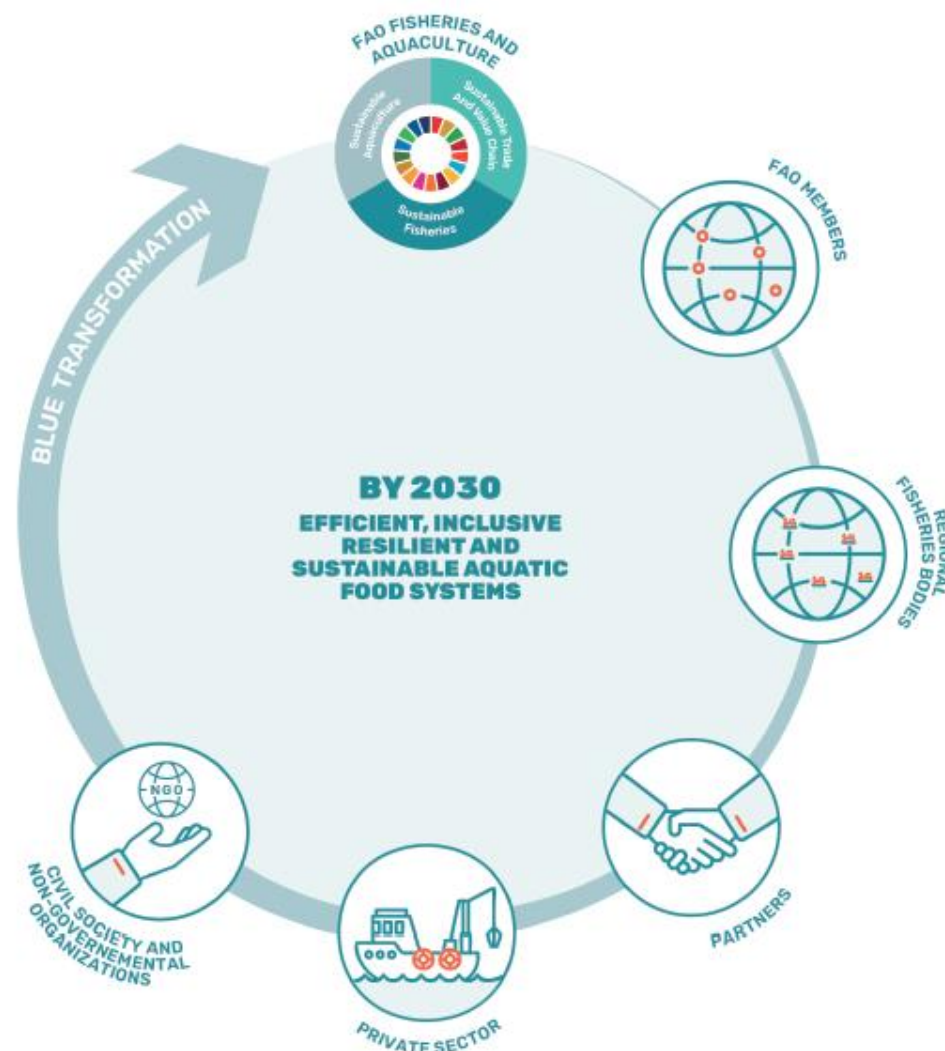
- SOCIAL PROTECTION
- LABOUR RIGHTS
- EQUITABLE SOCIAL PRACTICES

TRANSFORMING AQUATIC FOOD WILL MEET TARGETS

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



NOW IS THE TIME TO ACT DECISIVELY AND COLLECTIVELY



THANK YOU

