

Ensuring food security in Africa through Sustainable aquaculture

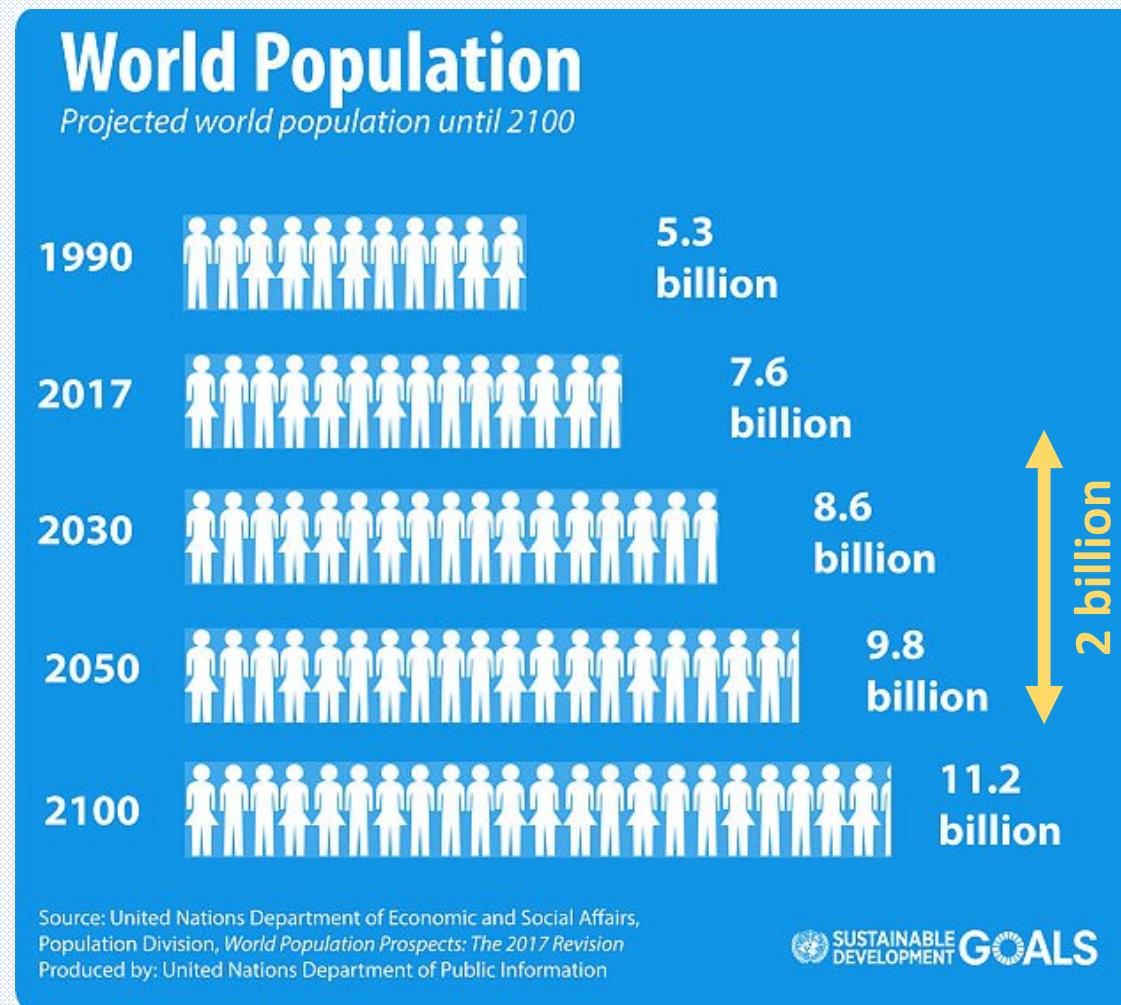
Dr Maria Darias
IRD

Aquaculture: an overview



Aquaculture: an overview

World population growth



Aquaculture: an overview

A close-up photograph of a whole fish and several fish oil capsules. The fish is silver and shiny, lying diagonally across the frame. In the foreground, there are four large, transparent yellowish-orange fish oil capsules. The background is a plain, light color.

High quality proteins and essential amino acids

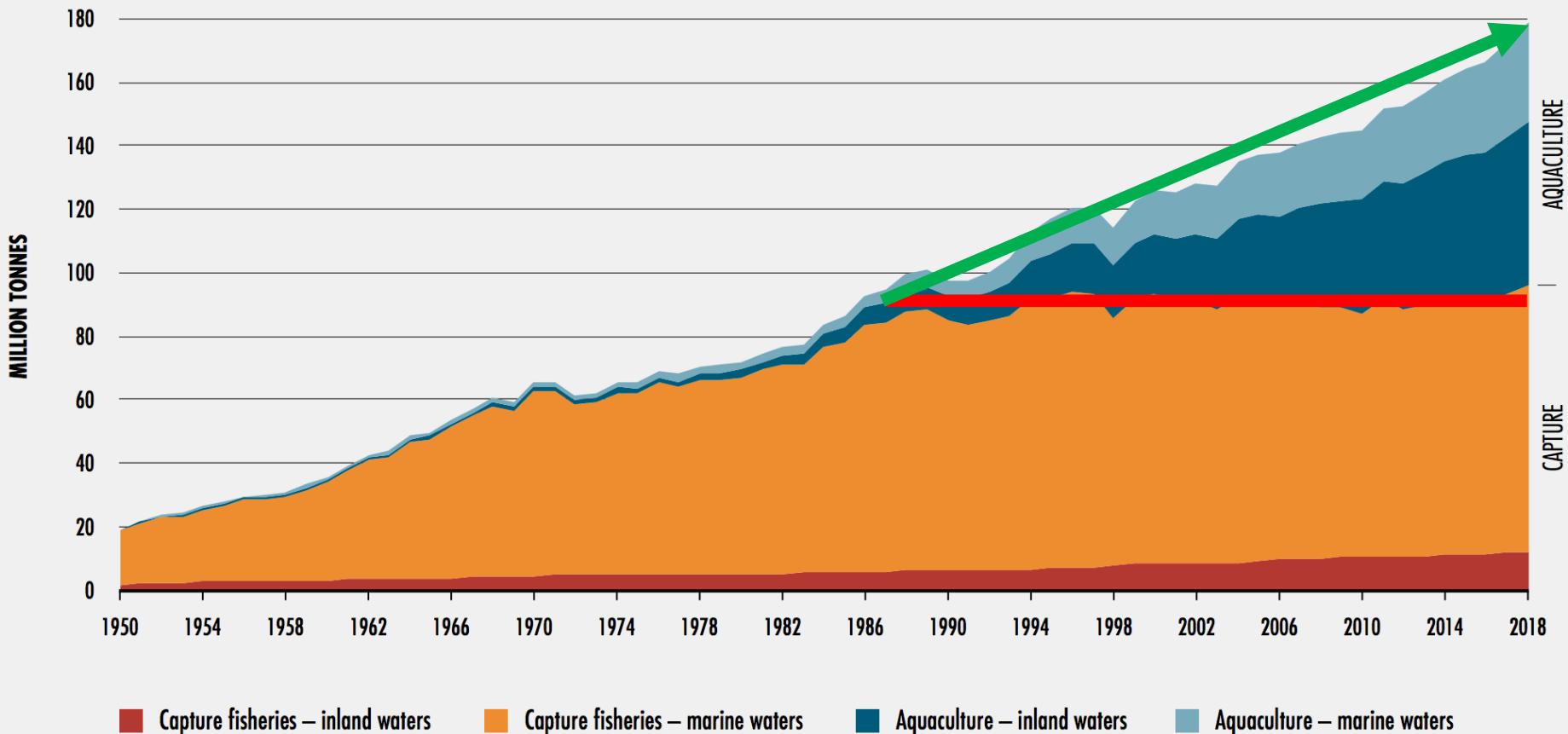
Omega 3 essential fatty acids

Essential vitamins

Essential minerals

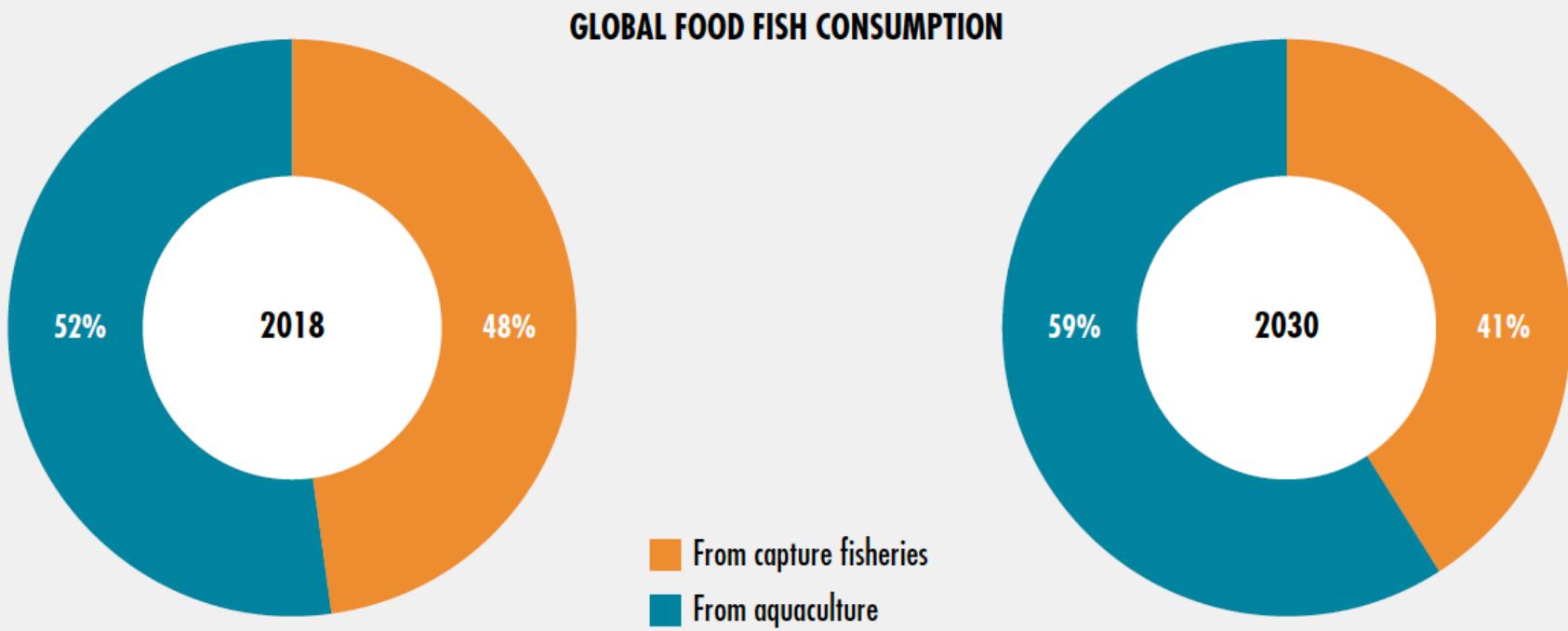
Aquaculture: an overview

World capture fisheries and aquaculture production



Aquaculture: an overview

Increasing role of aquaculture

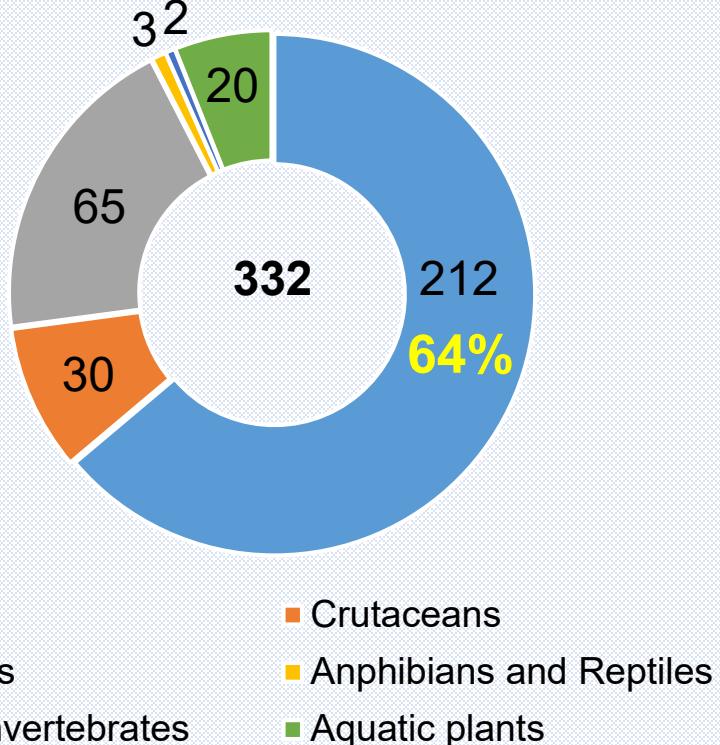


Aquaculture: an overview

World aquaculture production

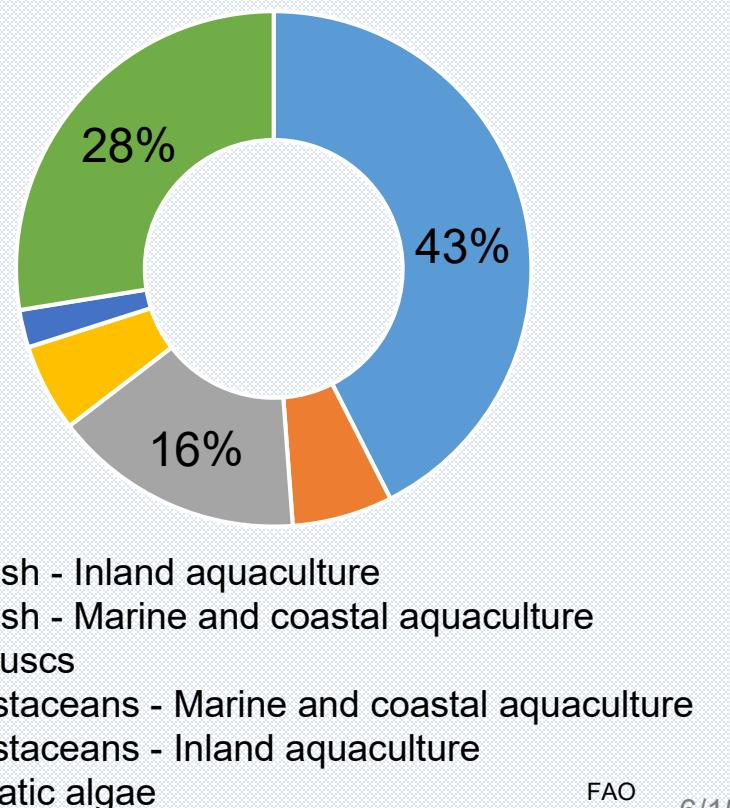
Number of species globally produced in aquaculture and sorted by major groups

2017



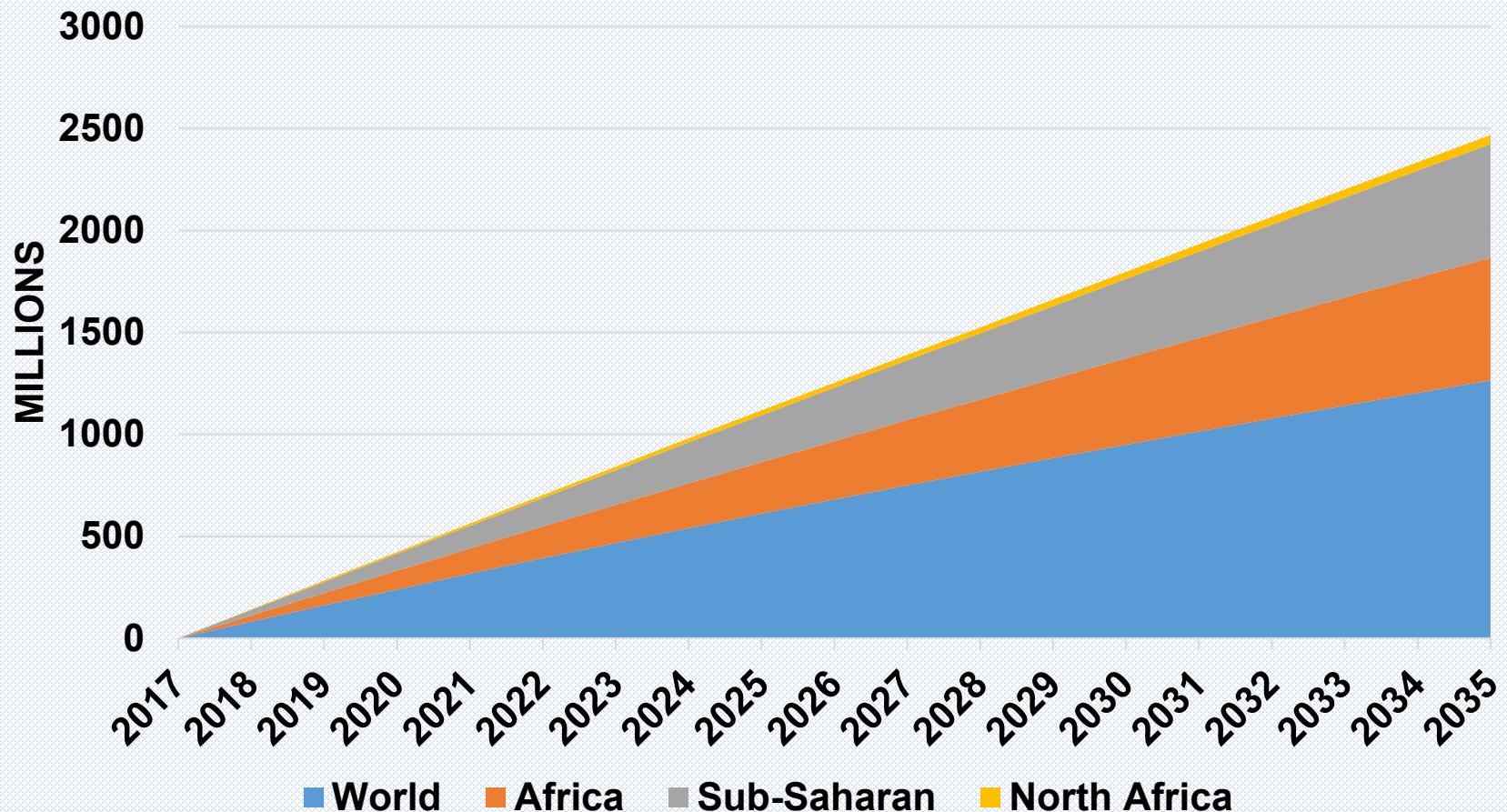
World Aquaculture production of aquatic animals and algae

2018



Aquaculture: an overview

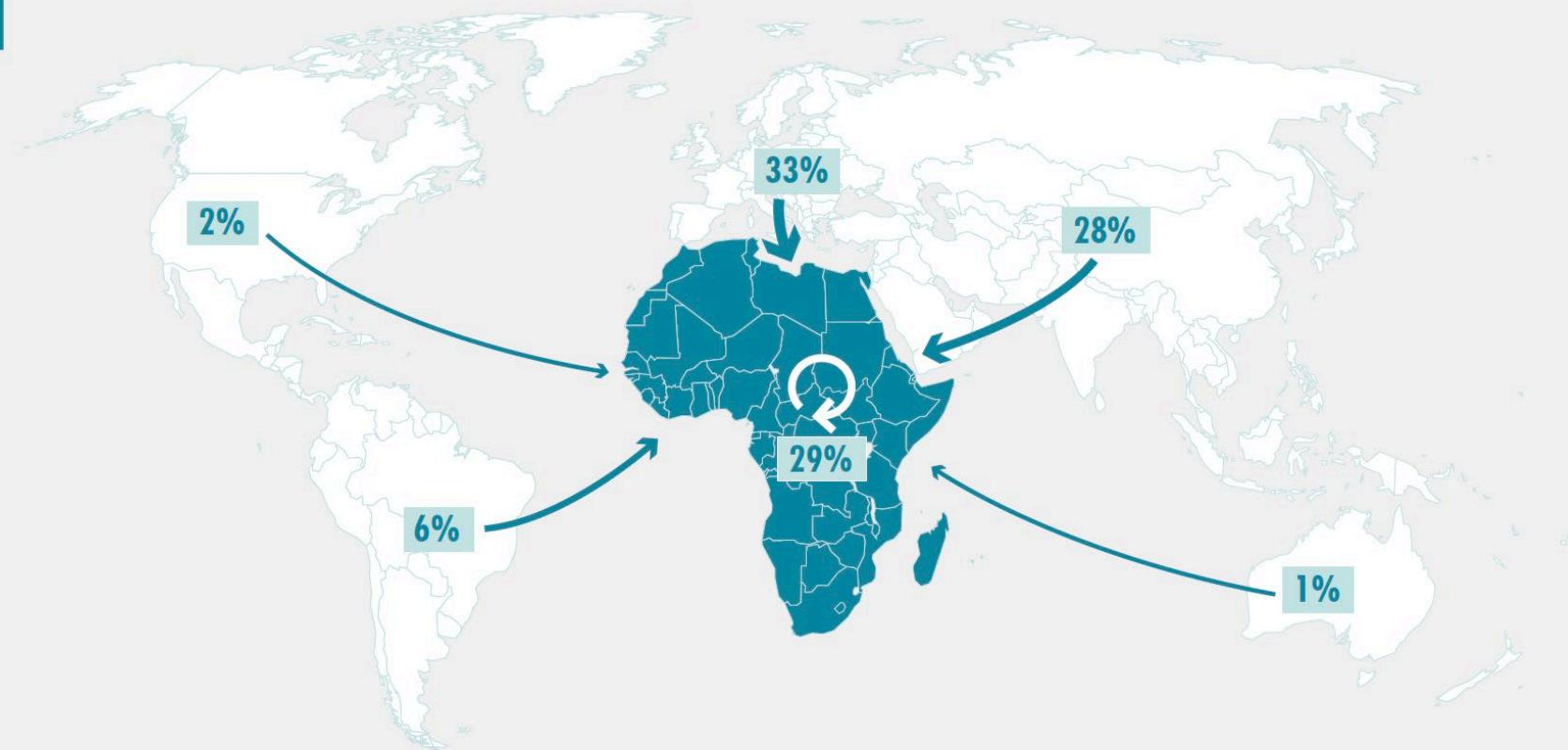
African population



Aquaculture: an overview

Trade flows of fish and fish products
(share in total imports, in terms of value)

AFRICA



Aquaculture: an overview

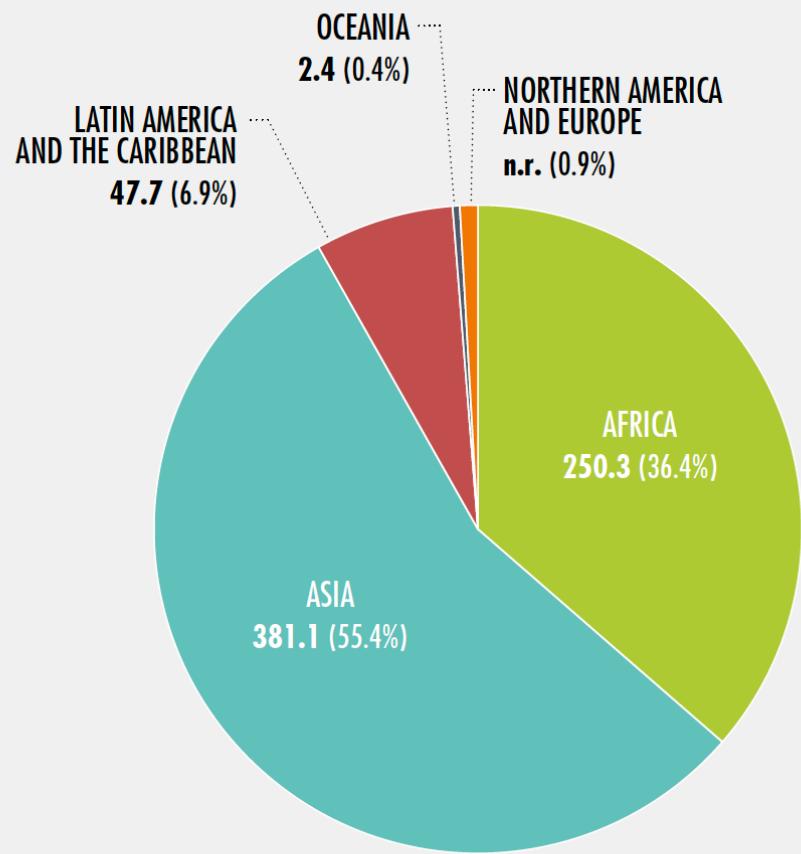


SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	 SUSTAINABLE DEVELOPMENT GOALS

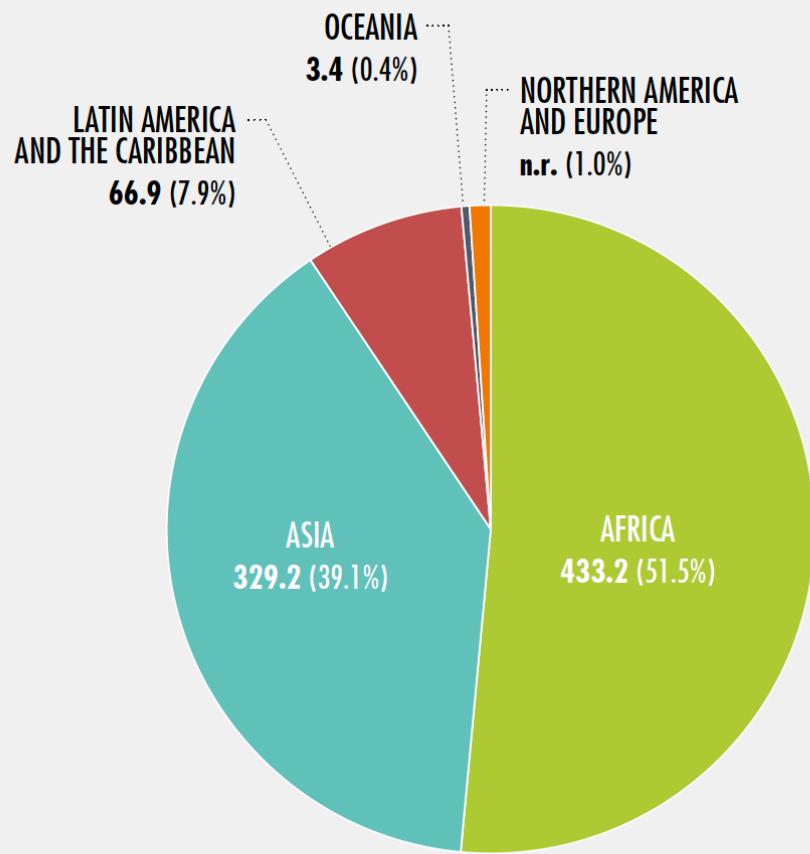
Aquaculture: an overview

Prevalence of undernourishment



2019*: TOTAL 687.8 MILLION

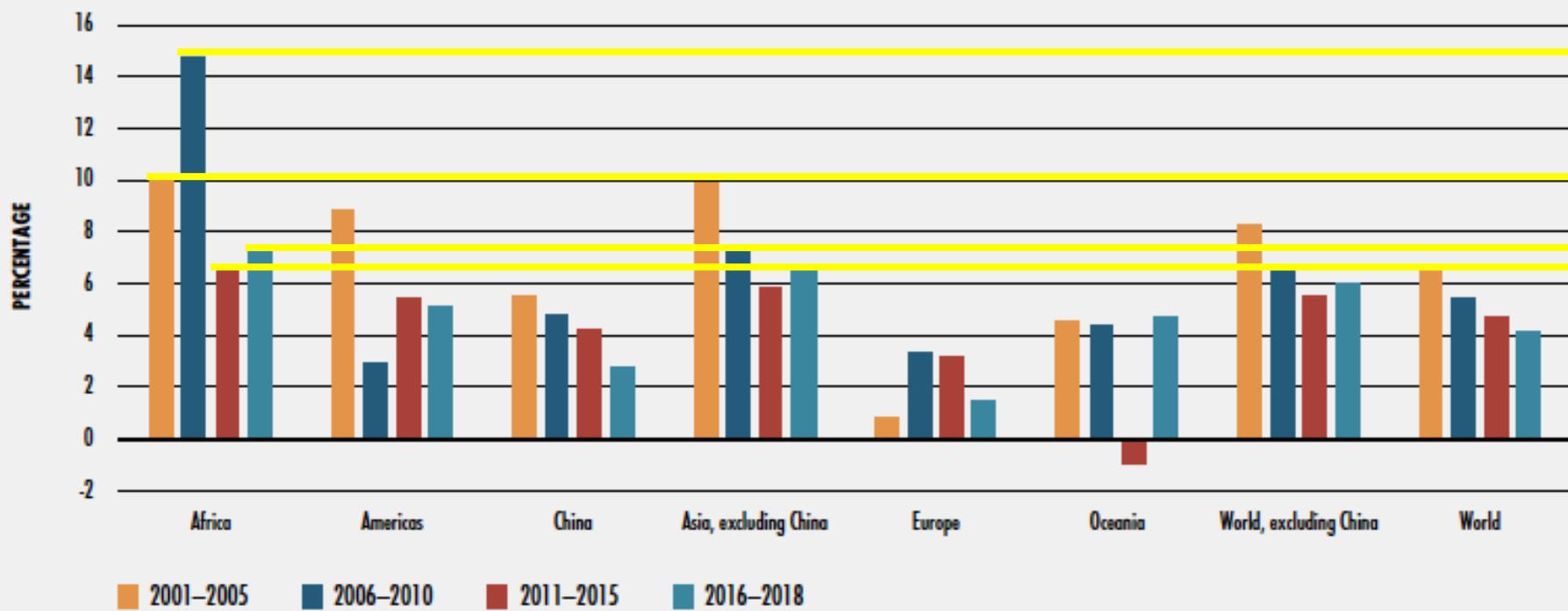
FAO. 2020



2030**: TOTAL 841.4 MILLION

Aquaculture: an overview

Annual growth rate of aquaculture fish production



Aquaculture: an overview

Aquaculture fish production in Africa

(thousand tonnes;¹ percentage of world total)

Region/selected countries	1995	2000	2005	2010	2015	2018
Africa	110.2	399.6	646.4	1 285.8	1 777.6	2 195.9
	(0.45%)	(1.23%)	(1.46%)	(2.23%)	(2.44%)	(2.67%)
Egypt	71.8	340.1	539.7	919.6	1 174.8	1 561.5
	(0.29%)	(1.05%)	(1.22%)	(1.59%)	(1.61%)	(1.90%)
Northern Africa, excluding Egypt	4.4	4.8	7.2	10.0	23.8	38.0
	(0.02%)	(0.01%)	(0.02%)	(0.02%)	(0.03%)	(0.05%)
Nigeria	16.6	25.7	56.4	200.5	316.7	291.3
	(0.07%)	(0.08%)	(0.13%)	(0.35%)	(0.44%)	(0.35%)
Sub-Saharan Africa, excluding Nigeria	17.4	29.0	43.1	155.6	262.3	305.1
	(0.07%)	(0.09%)	(0.10%)	(0.27%)	(0.36%)	(0.37%)



Aquaculture: an overview

Aquaculture production of main species groups by continent in 2018

Category	Africa	Americas	Asia (- Cyprus)	Europe (+ Cyprus)	Oceania	World
(thousand tonnes, live weight)						
Inland aquaculture						
1. Finfish	1 893	1 139	43 406	508	5	46 951
2. Crustacea	0	73	3 579	0	0	3 653
3. Molluscs	207	207
4. Other aquatic animals	...	1	528	0	...	528
Subtotal	1 893	1 213	47 719	508	6	51 339
Marine and coastal aquaculture						
1. Finfish	291	1 059	3 995	1 892	92	7 328
2. Crustacea	6	888	4 834	0	6	5 734
3. Molluscs	6	640	15 876	680	102	17 304
4. Other aquatic animals	0	...	387	3	0	390
Subtotal	302	2 587	25 093	2 575	200	30 756
All aquaculture						
1. Finfish	2 184	2 197	47 400	2 399	97	54 279
2. Crustacea	6	961	8 414	0	6	9 387
3. Molluscs	6	640	16 083	680	102	17 511
4. Other aquatic animals	0	1	915	3	0	919
Total	2 196	3 799	72 812	3 083	205	82 095

Aquaculture: an overview

Sustainable aquaculture

Environmental sustainability



Social and community sustainability

Economic sustainability

Aquaculture: an overview

