‘What FAO expects from European aquaculture ..’

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Acting Head, Aquaculture
FAO

FAO's mandate is to lead global efforts to eliminate poverty and hunger

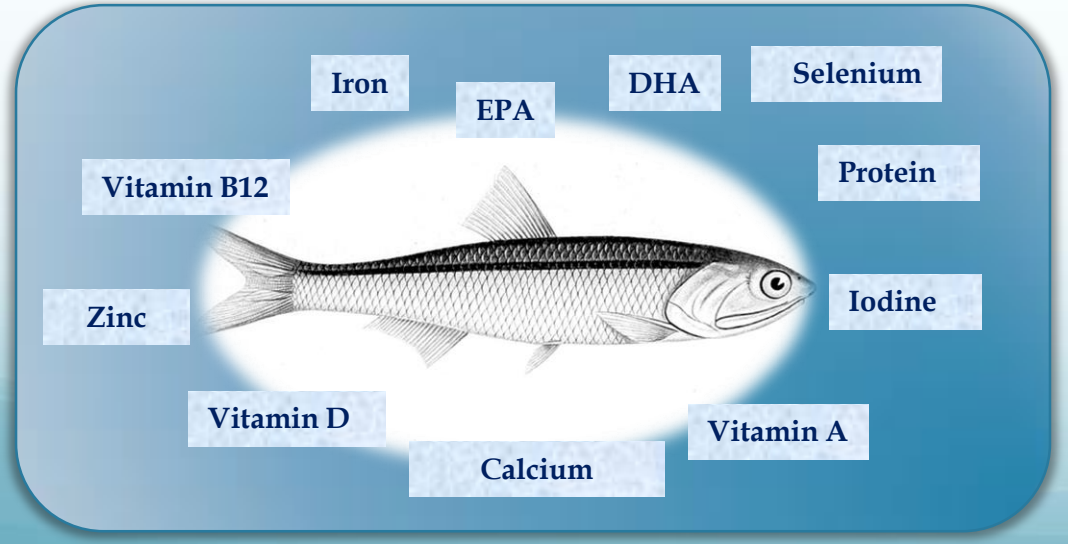
Eradicate hunger, food insecurity and malnutrition

Manage and sustainably use natural resources

Eliminate rural poverty through socio-economic development

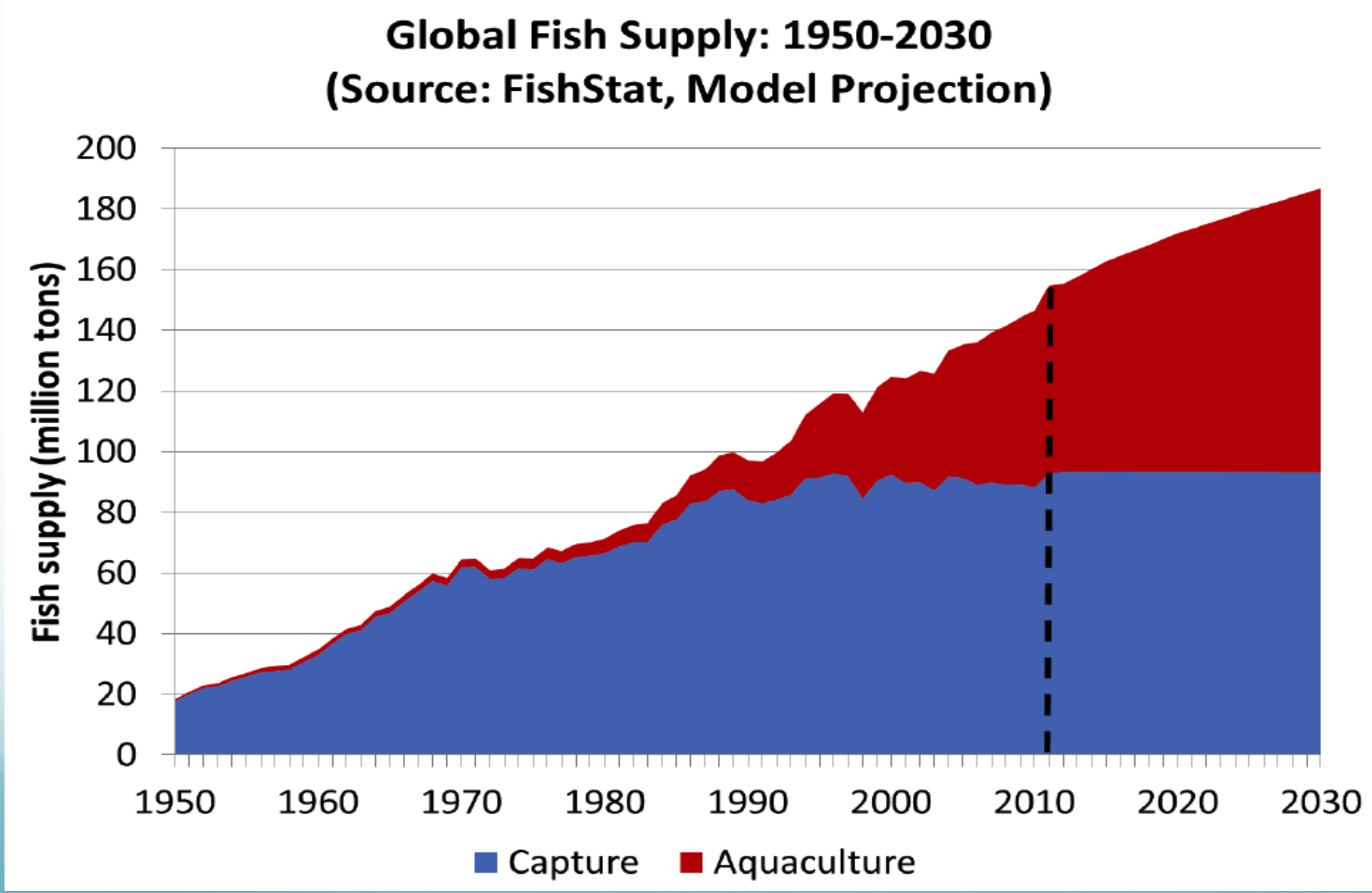
Nutrient dense fish *'.. a special role in nutrition and health'**

* ICN2 Second International Conference on Nutrition
better nutrition better lives
19-21 November 2014, Rome, Italy
Food and Agriculture Organization of the United Nations
World Health Organization

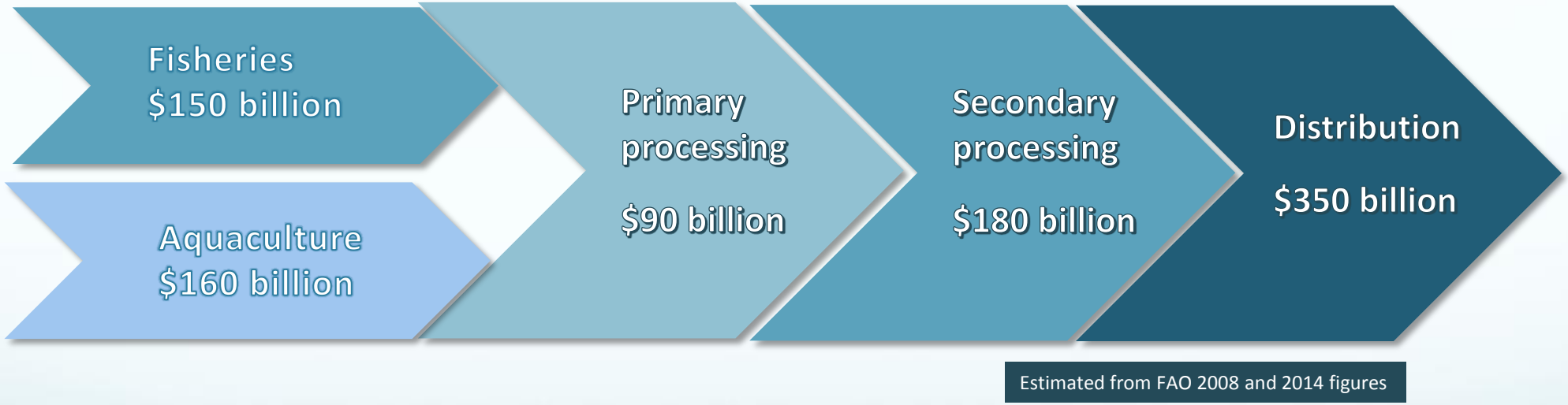


Fish, a source of nutrients	Daily need (RDI) for children
DHA+EPA (Ω-3); seafood main source	**150 (250) µg**
Vitamin A; **250 million** preschool children deficient	**150 (250) mg**
Iron; **1.6 billion** people deficient	**8.9 mg** **(at 10% bioavailability)**
Iodine; seafood natural source, **2 billion** people deficient	**120 µg**
Zinc; **800 000** child deaths per year	**5.6 mg** **(at moderate bioavailability)**

Aquaculture increasingly dominates global fish supplies



Global fishery/aquaculture value chain is worth $1 trillion and creates 20 million jobs

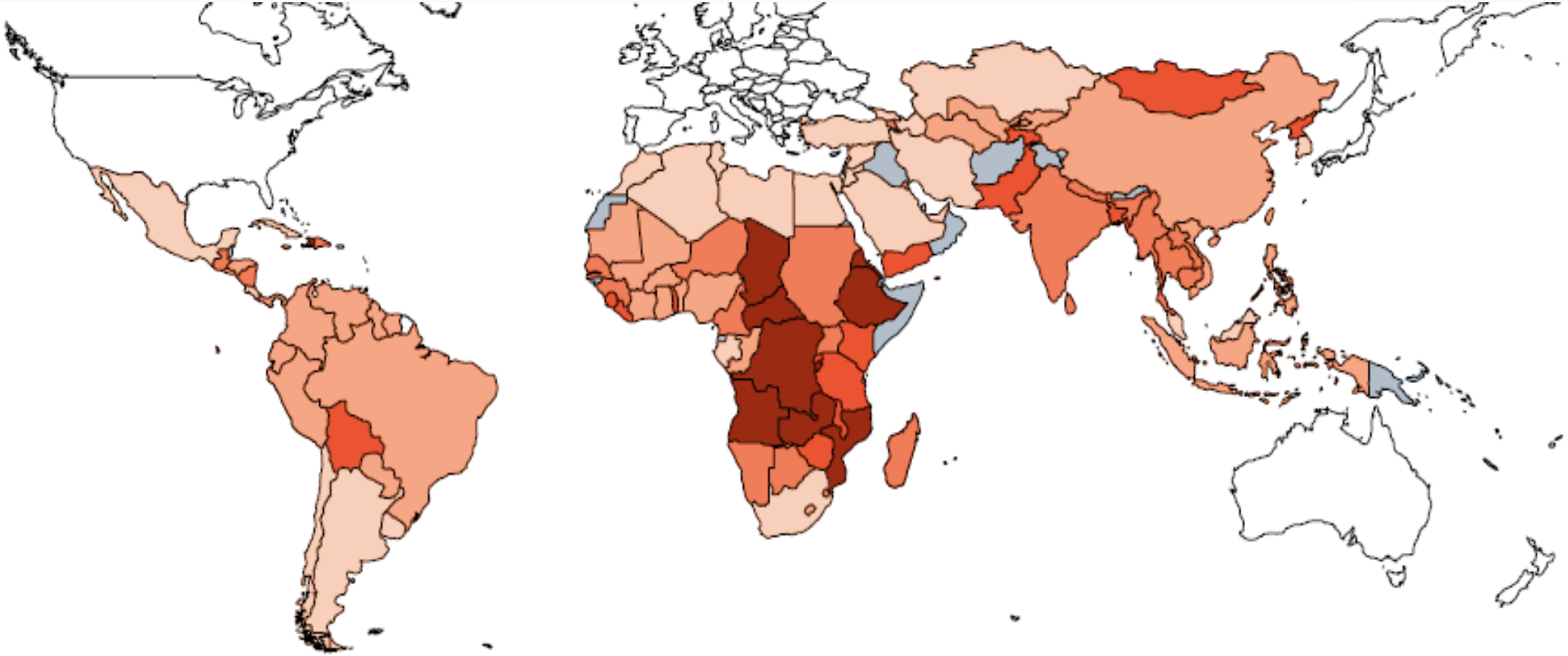


Estimated global aquaculture supplies (2014) = 72 million tonnes[1]

[1]fish + shellfish, excluding seaweeds and other aquatic plants

Poverty and hunger are greatest in Africa and South Asia

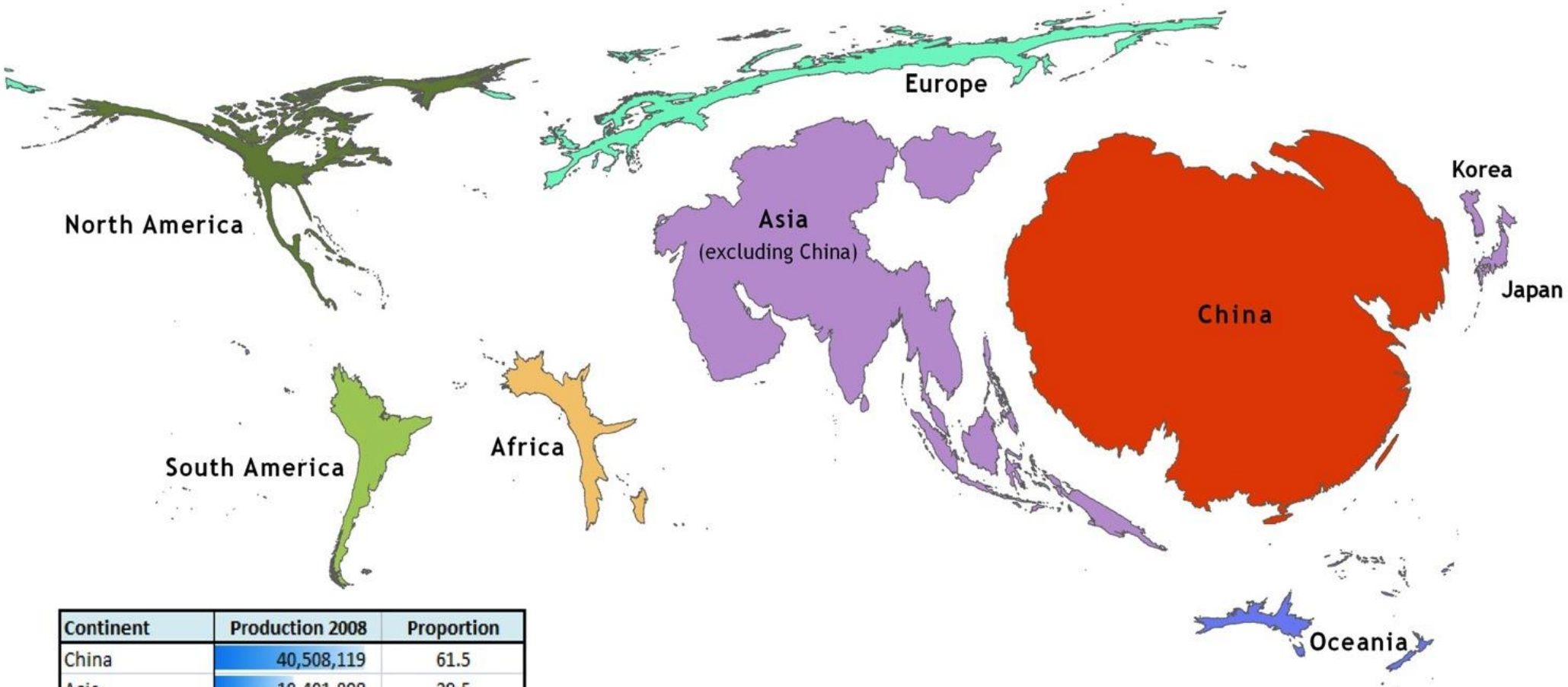
% undernourished 2005-2007



Very high (undernourishment 35% and above)
High (undernourishment 25-34%)
Moderately high (undernourishment 15-24%)
Moderately low (undernourishment 5-14%)
Very low (undernourishment below 5%)
Missing or insufficient data

from UN (2011)

The world according to aquaculture … but where's Africa?



Continent	Production 2008	Proportion
China	40,508,119	61.5
Asia	19,401,808	29.5
Europe	2,341,646	3.6
South America	1,461,061	2.2
North America	965,792	1.5
Africa	952,133	1.4
Oceania	176,181	0.3

source: Hall *et al*. (2011)

Fish supplies are falling where they are most needed …

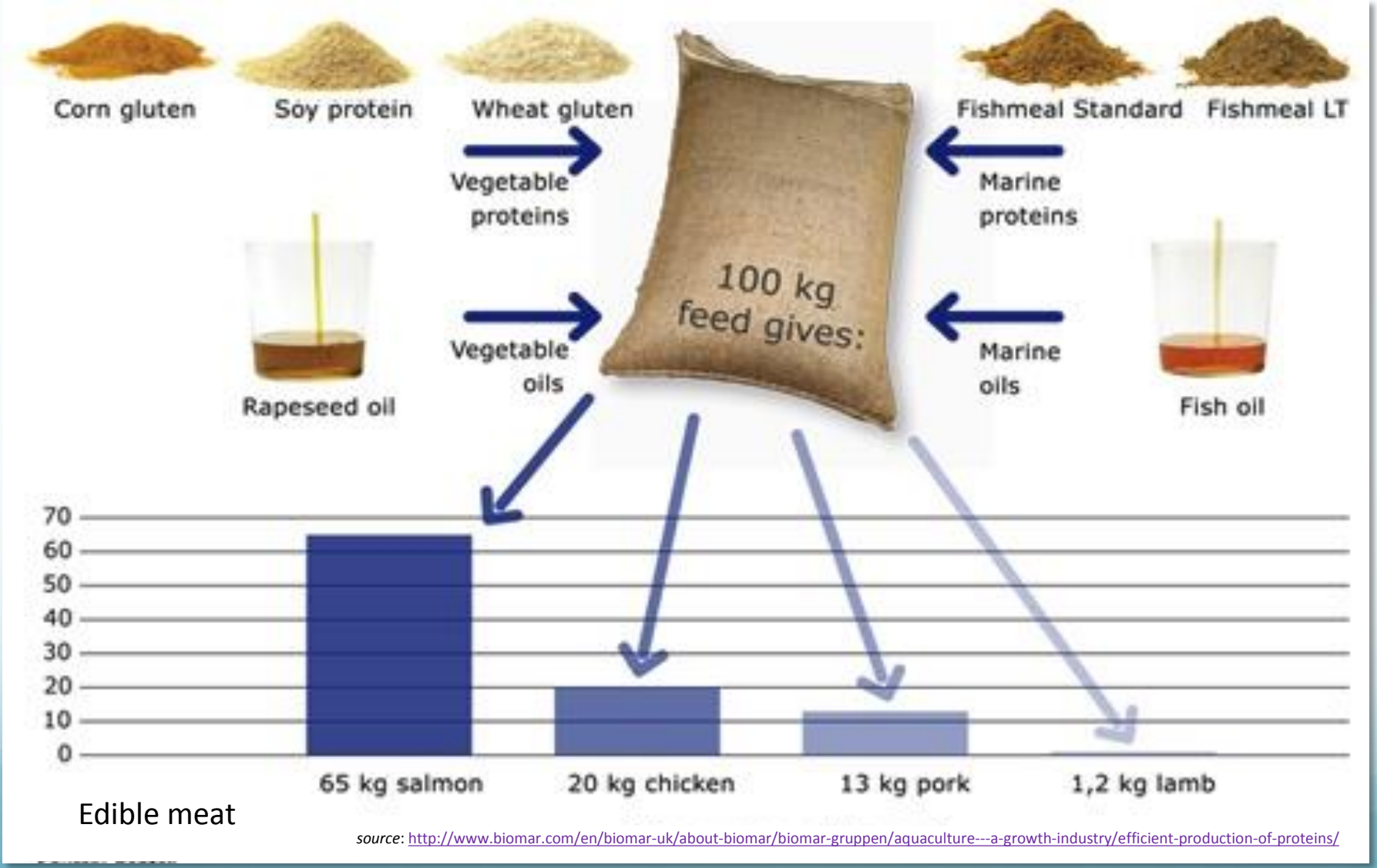
	DATA (KG/PERSON/YEAR)		PROJECTION (KG/PERSON/YEAR)			ANNUAL GROWTH RATE	
	2000	2006	2010	2020	2030	2000–06[a]	2010–30[b]
Global average	**15.7**	**16.8**	**17.2**	**18.0**	**18.2**	**1.1%**	**0.3%**
ECA	17.0	18.5	17.4	17.2	18.2	1.5%	0.2%
NAM	21.8	24.3	22.9	24.5	26.4	1.8%	0.7%
LAC	8.8	9.4	8.4	8.0	7.5	1.1%	–0.6%
EAP	32.1	36.5	27.1	26.1	23.8	2.2%	–0.7%
CHN	24.4	26.6	32.6	37.8	41.0	1.4%	1.2%
JAP	67.7	59.2	64.7	63.7	62.2	–2.2%	–0.2%
SEA	24.6	27.9	25.8	28.3	29.6	2.1%	0.7%
SAR	8.5	11.4	11.0	13.4	15.7	5.1%	1.8%
IND	4.5	5.0	5.6	6.2	6.6	1.7%	0.8%
MNA	8.3	10.2	9.3	9.4	9.4	3.5%	0.0%
AFR	7.1	7.5	6.8	6.1	5.6	0.8%	–1.0%
ROW	18.4	20.1	9.4	9.6	9.6	1.5%	0.1%

Sources: FAO FIPS FBS and IMPACT model projections.
Note: ECA = Europe and Central Asia; NAM = North America; LAC = Latin America and Caribbean; CHN = China; JAP = Japan; EAP = other East Asia and the Pacific; SEA = Southeast Asia; IND = India; SAR = other South Asia; MNA = Middle East and North Africa; AFR = Sub-Saharan Africa; ROW = rest of the world.

source = World Bank/FAO (2013)

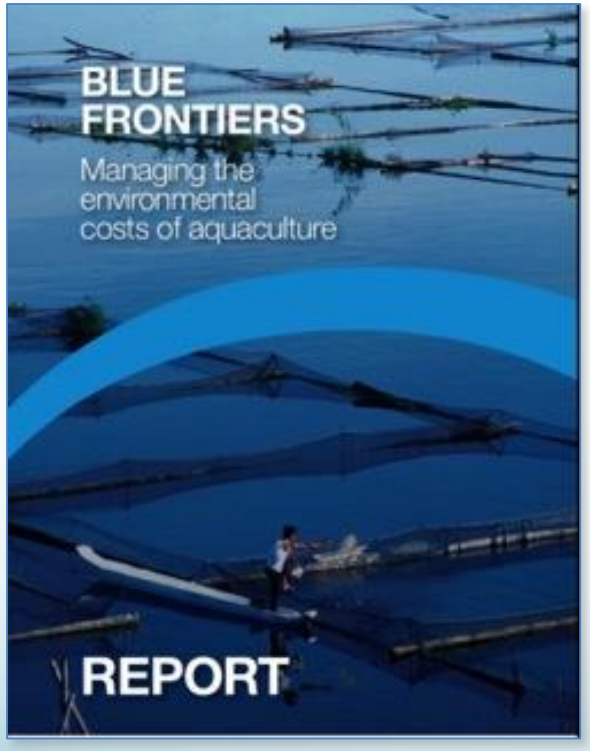
Nutrition status is determined by availability ***and*** economic access …

Fish are highly efficient converters of food into flesh

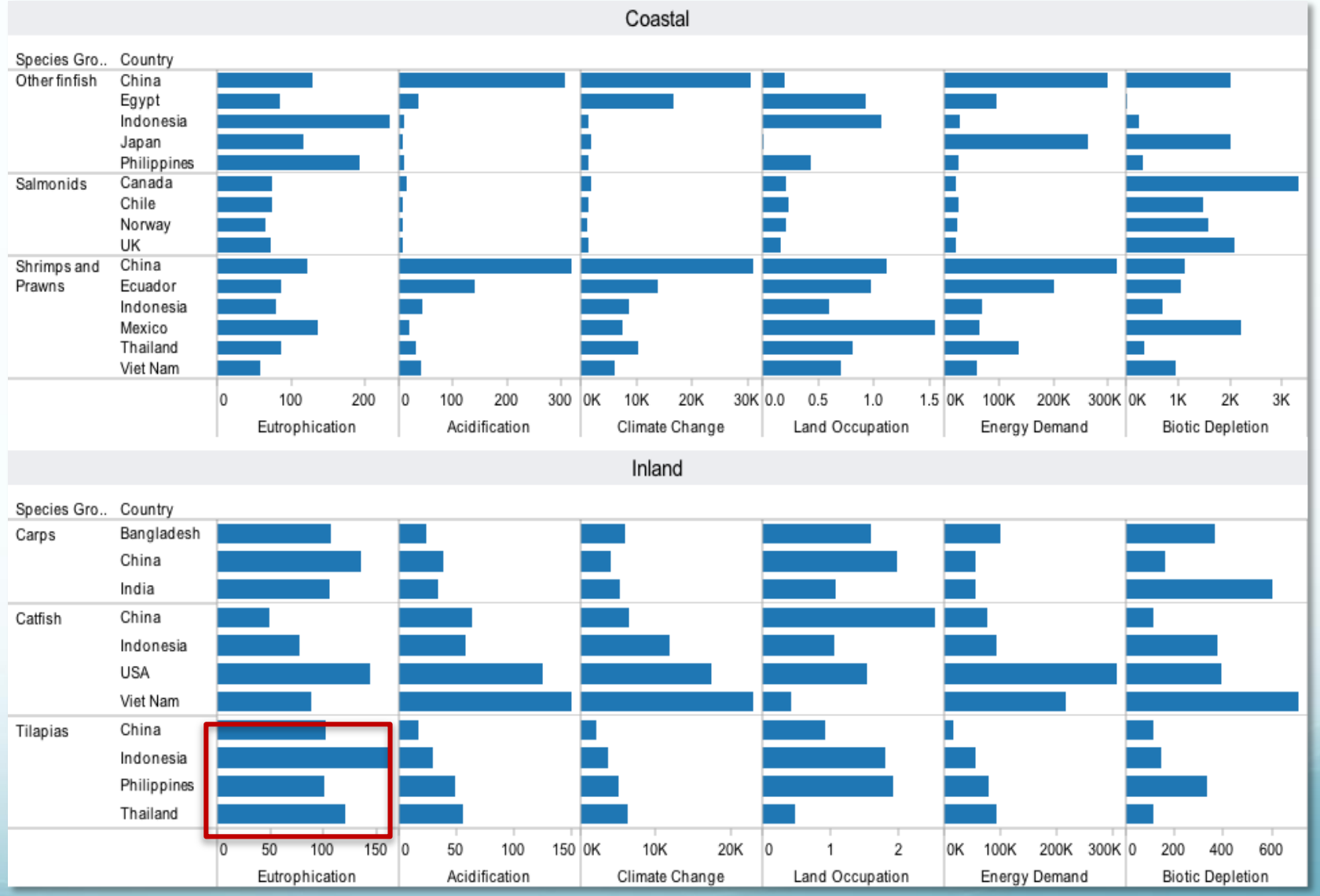


source: http://www.biomar.com/en/biomar-uk/about-biomar/biomar-gruppen/aquaculture---a-growth-industry/efficient-production-of-proteins/

Aquaculture impacts on the environment



source: Hall et al. 2011



The BGI is attracting funds to help sustainably grow aquaculture

Seven things FAO [would like to see] in European aquaculture

1. **Leadership** – lead by example
2. **Partnerships** – partner with FAO to grow aquaculture sustainably
3. **Investment** – invest in sustainable developing world aquaculture growth
4. **Innovation** – Share your techologies and knowledge
5. **Capacity building** – facilitate access to the world's best research and teaching facilities
6. **Markets and trade** – apply high ethical standards and transparency in business
7. **Quality** – produce the safest, most nutritious and environmentally sound farmed aquatic foods