

# Addressing food insecurity through distribution of value added fish products

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Food and Agriculture  
Organization of the  
United Nations

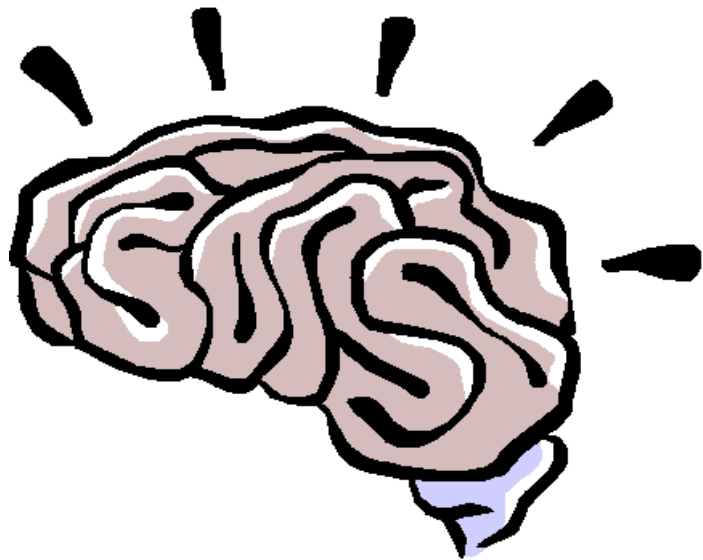
## FAO's Vision

*A sustainable and food secure world for all*

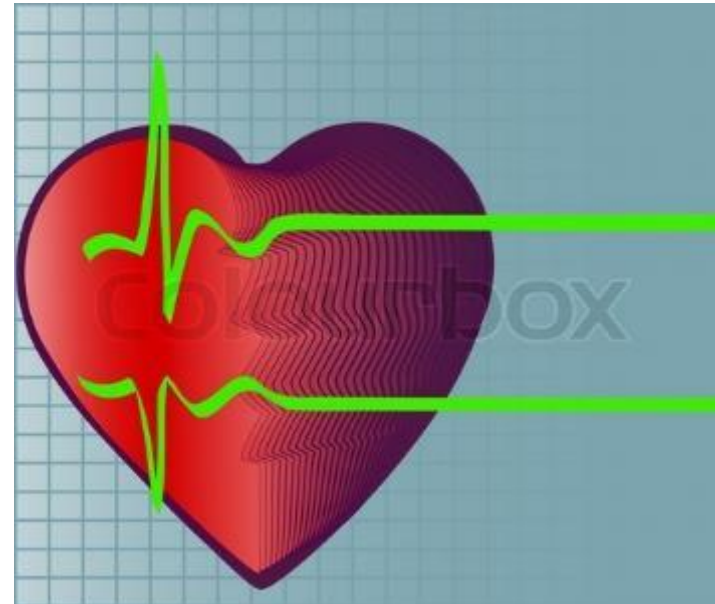
Fish is Food

# Omega-3 (DHA/EPA)

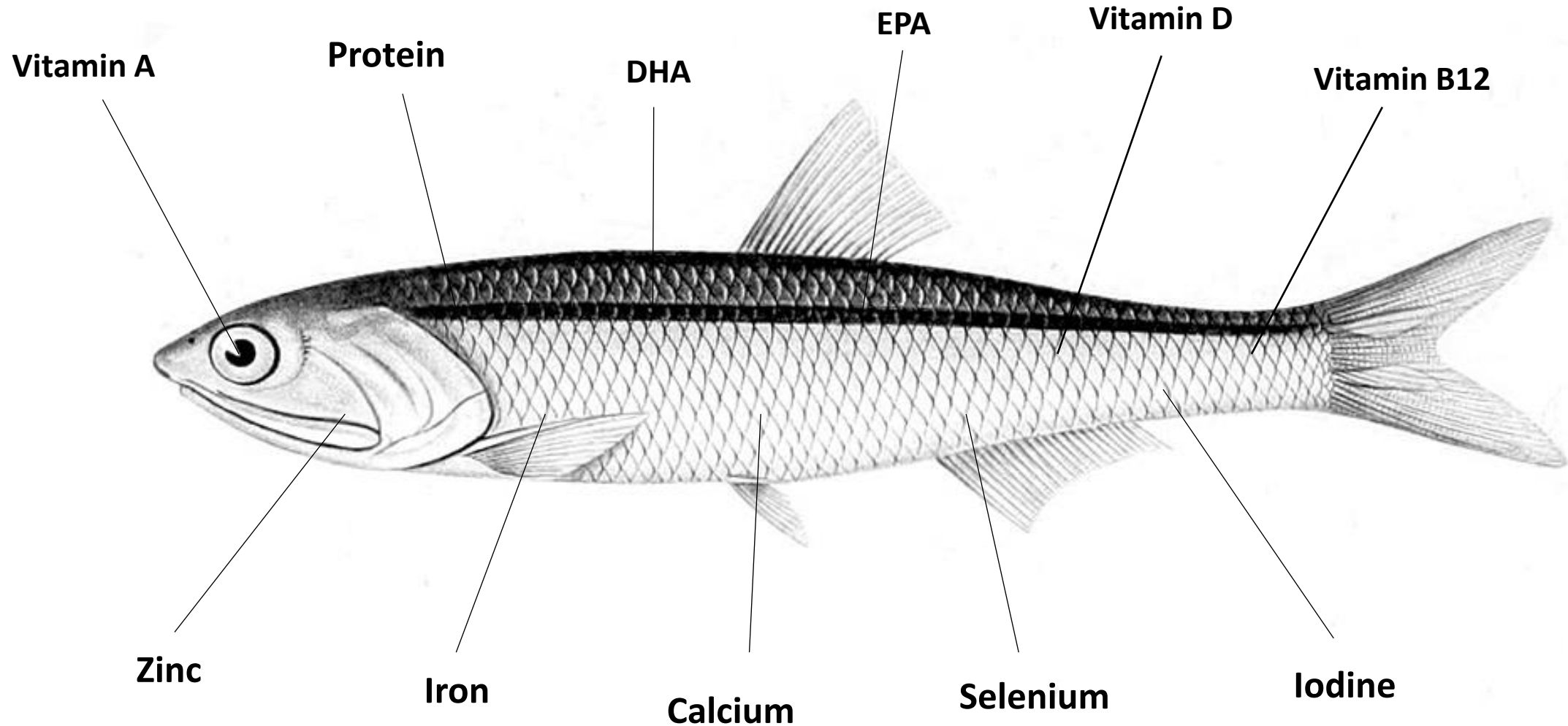
**IQ +6**



**CHD -36%**



# Fish, much more than proteins



# Nutritional Composition Bivalves

		Cod	Tilapia	Mussels	Oysters	Scallops
<b>DHA + EPA (omega 3)</b>	mg/100g	184	91	441	688	103
<b>Calcium</b>	mg/100g	16	10	26	8	6
<b>Iron</b>	mg/100g	0.38	0.56	3.95	5.11	0.38
<b>Zinc</b>	mg/100g	0.45	0.33	1.60	16.6	0.91
<b>Selenium</b>	µg/100g	33.1	41.8	44.8	77.0	12.8
<b>Vitamin A</b>	µg/100g	12	0	48	81	1
<b>Vitamin B12</b>	µg/100g	0.91	1.58	12.0	16.0	1.41

# Selected micronutrients per 100 grams edible portion of Darkina (*Esomus danricus*)



		<u>Carp</u>	<u>Tilapia</u>	<u>Darkina</u>	<u>RDI*</u>
Calcium, Ca	mg	41	10	800	1000
Iron, Fe	mg	1.24	0.56	12.0	8.9
Zinc, Zn	Mg	1.48	0.33	4.0	5.6
Vitamin A	µg RAE	9	0	890	500

\*RDA for a child, moderate bioavailability

# Fish and Micronutrients



30% of Global population micronutrient deficient

→ Hidden hunger

Small indigenous fish species important source of nutrients

→ Eaten whole

30-70% of the fish removed when processed

→ Most nutrient dense parts



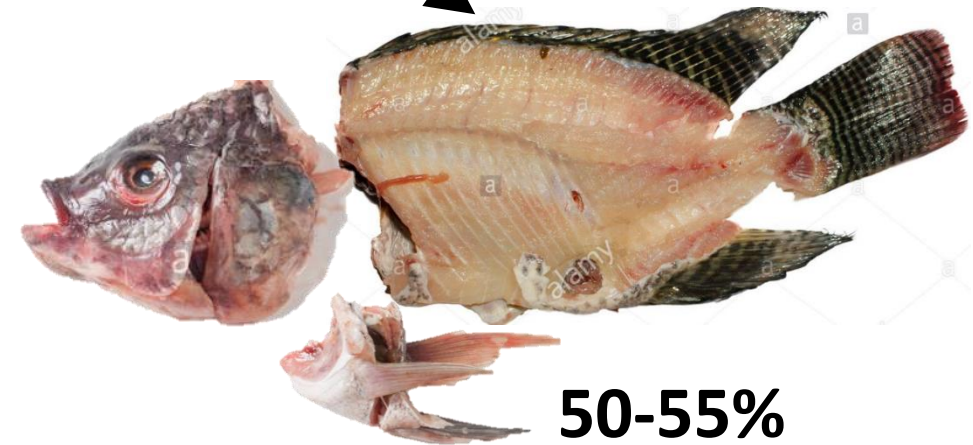
# Tilapia processing, it is all food!



**6 million tonnes (2020)**



**30-35%**



**50-55%**

# Tuna Frames



# Fish powders based on whole fish







# South Sudan

- Rich in fishery resource
- Largest wetland in Africa- Sudd. Some 58000sq kilometre of wetland
- Over 120 fish species
- Underutilized resource
- An estimated fish production of 140, 000 tonnes per year. With a considerable opportunity to add 100, 000 tons more fish per annum.
- Important source of livelihood and coping mechanise when crop and livestock fail
- More than 70 % of the population needs food aid

# The pilot: reaching food insecure household with value added fish products

- Made in South Sudan fish product which has a longer shelf life
- Highly acceptable product with the population
- Replicable in areas where there is fishery resource
- Much cheaper than imported food aid
- Employment opportunity and income generation activity
- Reaching out to 500 households for 2-3 months
- Partnership with National NGOs

THANK YOU !