



Fish for Improved Nutrition and Health in Africa

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Food – Fish is a key component



Fish and Human Nutrition?

Good quality protein



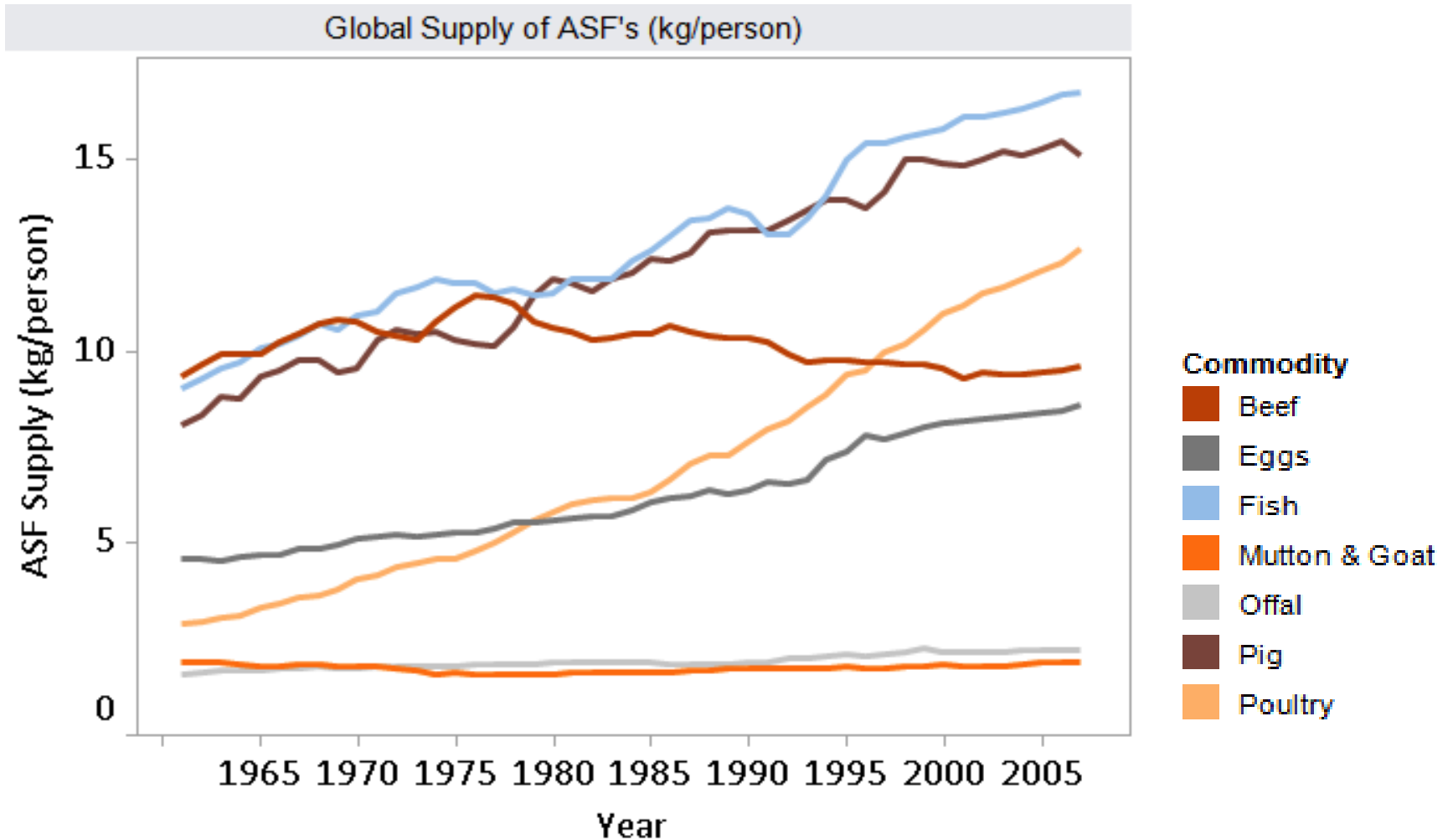
LIPIDS



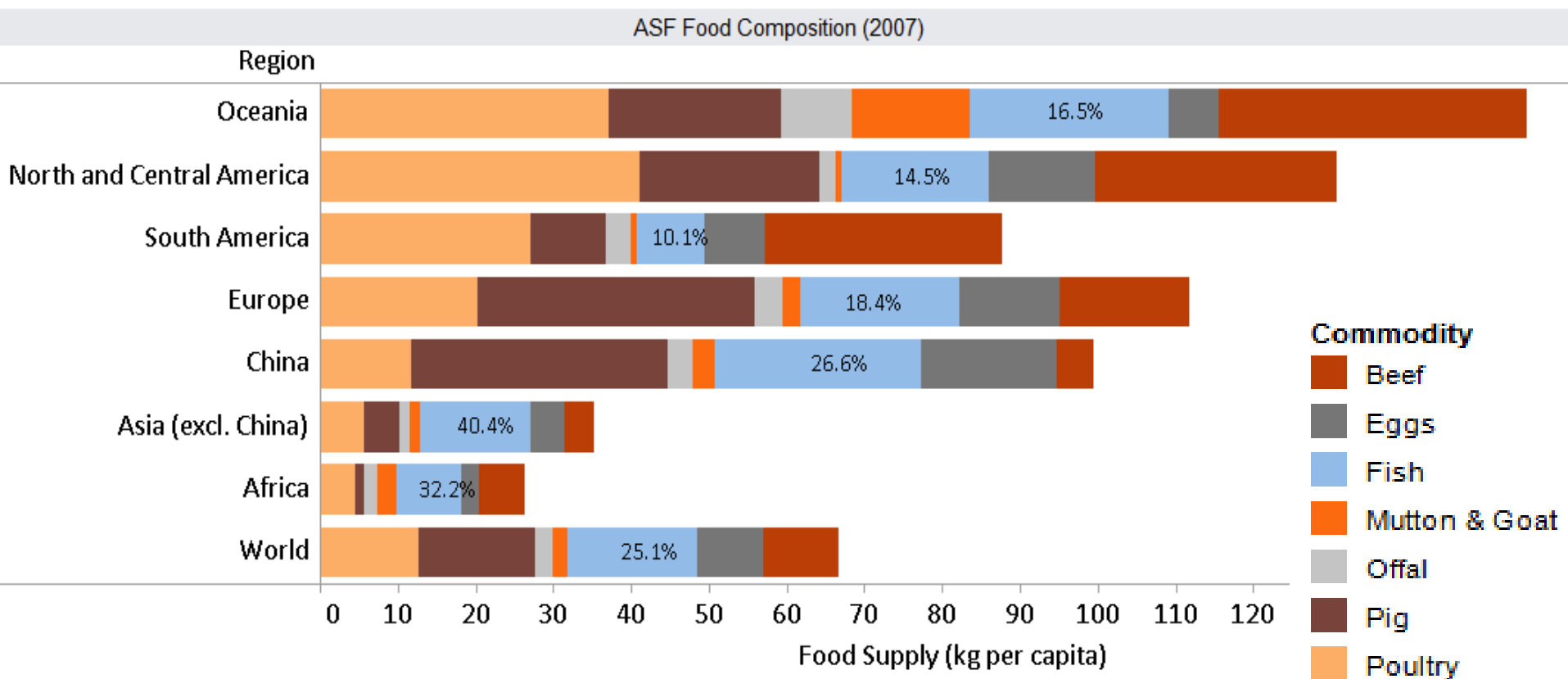
Essential micronutrients



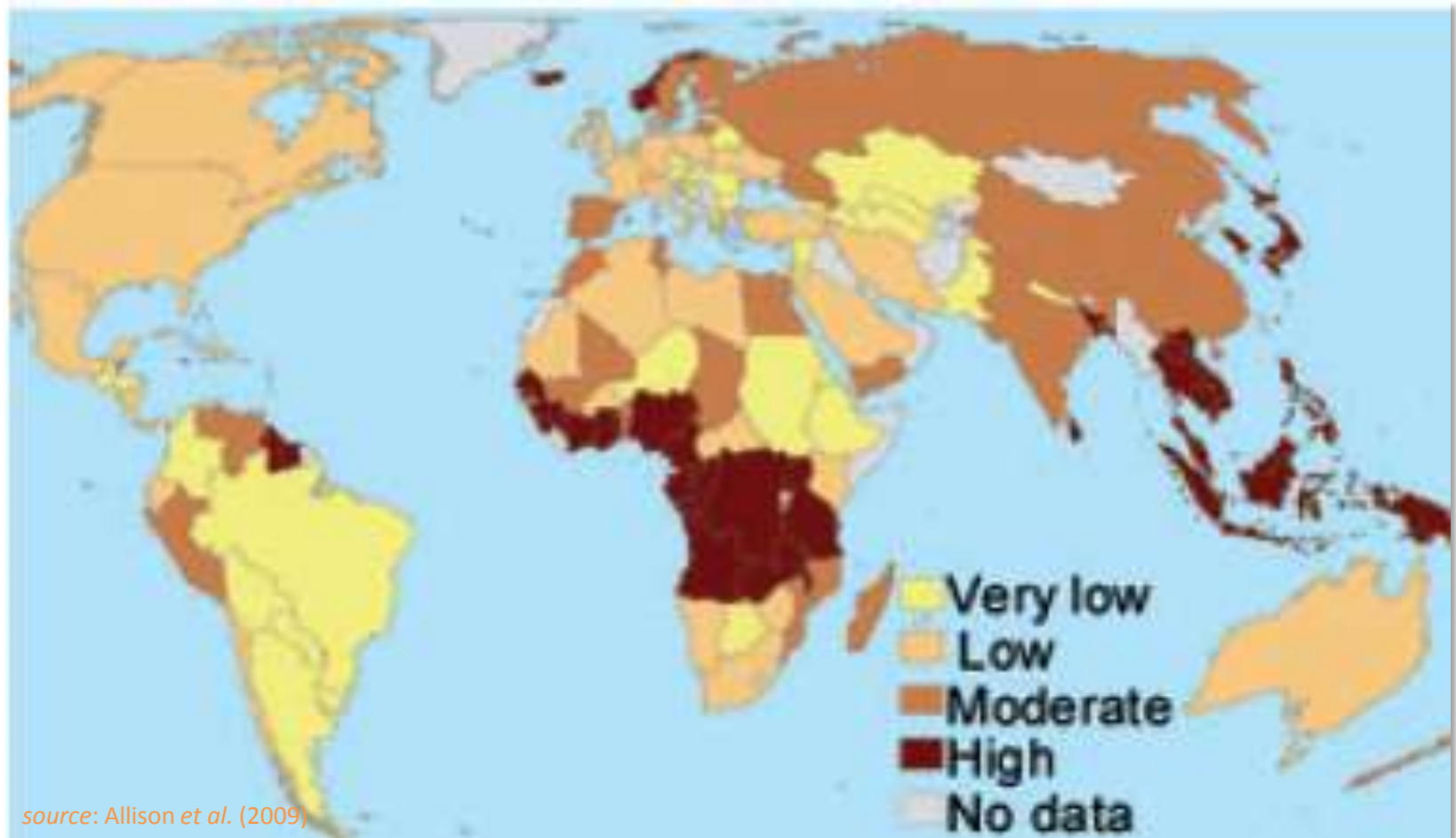
Global consumption patterns



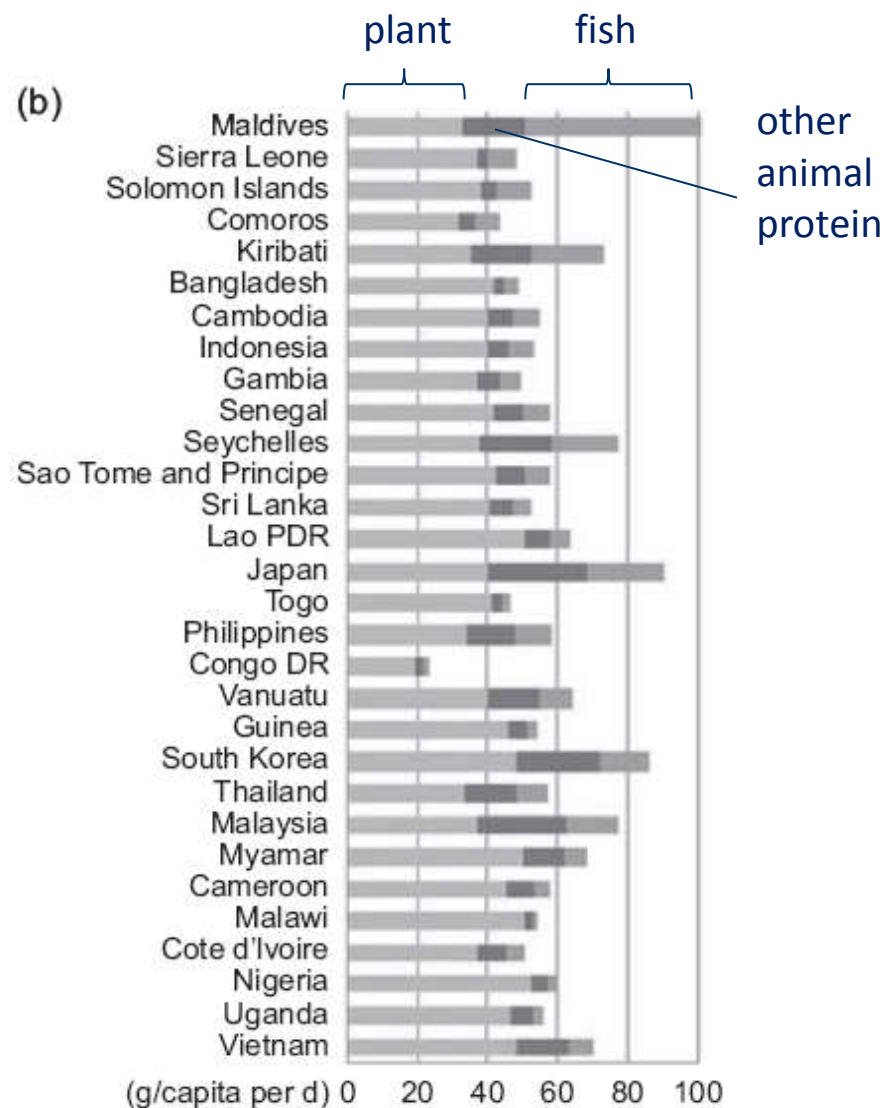
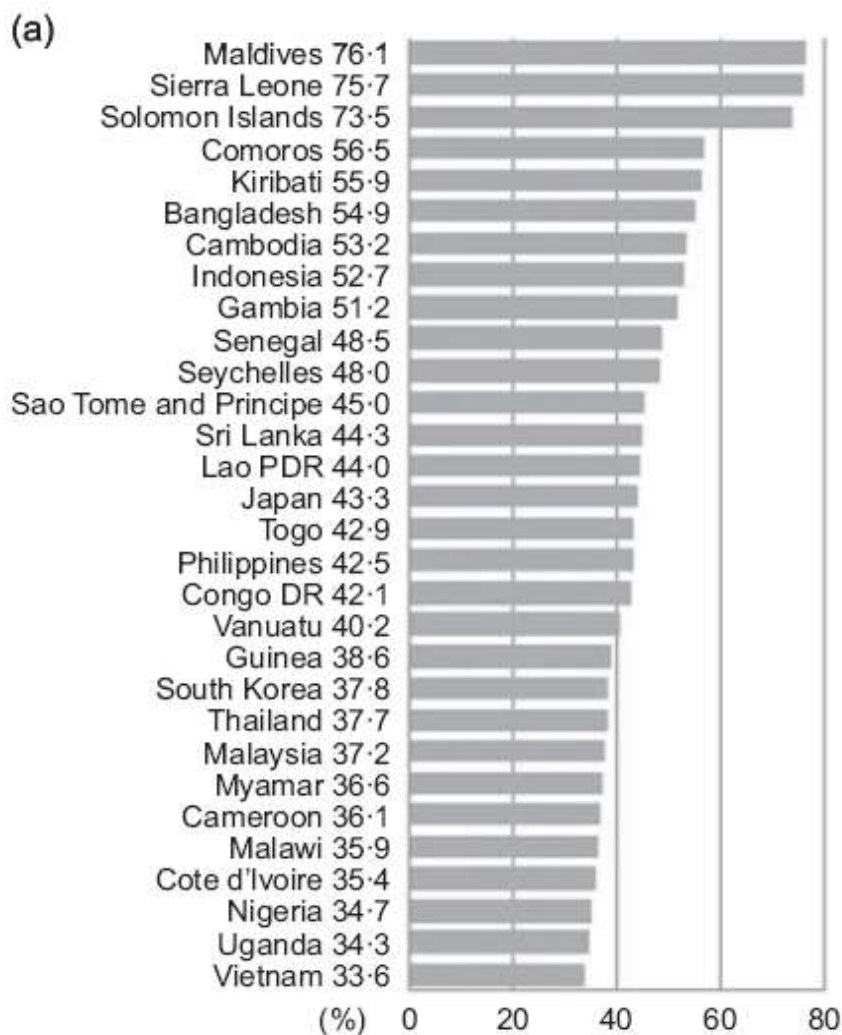
Global consumption patterns



Global fish protein consumption as a proportion of animal protein in national diets



availability – *nutrients and importance of fish*

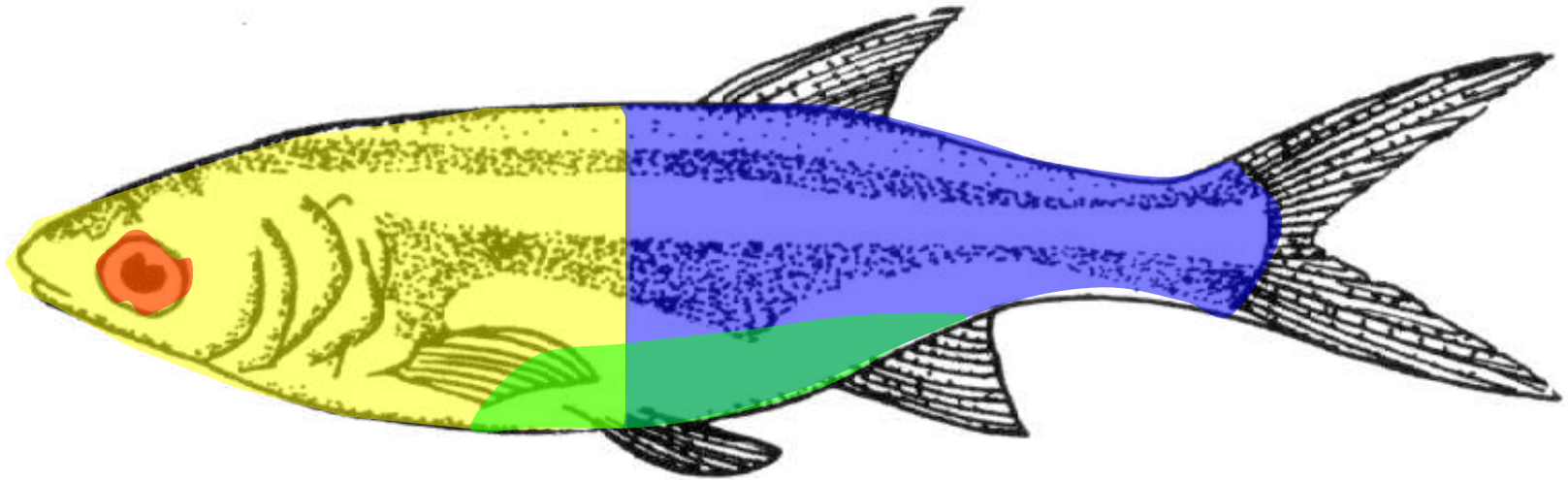


Fish & Nutrition – The Evidence

Vitamin A content in fish species

Species	Vitamin A Mean (RAE/100 g, raw, edible parts)
<i>Amblypharyngodon mola</i>	2,680
<i>Rasbora tornieri</i>	1,477
<i>Clupeoides borneensis</i>	250
<i>Channa punctatus</i>	140
Corica soborna	90
Silver carp	30

Fish & Nutrition – The Evidence



53 %



39 %



7 %



1 %

Vitamin A content in mola: 2,680 retinol activity equivalent (RAE) /100 g raw, edible parts

SUN: 1,000 Days

Fat in the Critical Thousand Days
Ensuring
Adequacy of Essential Dietary Fats
for Mothers and Children in
Low and Middle Income Countries

Washington D. C. Meeting , April 2011

Fish & Nutrition – The Evidence

Kapenta Research in Zambia [Musonda Mofu (NFNC Principal Nutritionist), 2010]

Dry Kapenta

206 calories
of food
energy

63grammes
protein

8.5mg of
iron

rich in
omega 3 &
6 fatty acids

rich in
Vitamin B12

Fish is a rich source of Essential Fats

- Lake Malawi:
- Dried usipa (*Engraulicypris sardella*) contains 1,700 mg docosahexaenoic acid (DHA) per 100 g, comparable to salmon
- DHA in the breast milk of women ~0.7% of fatty acids, about twice the global average
- Fish and breast milk of women with high concentrations of essential fats

Fish & Nutrition – The Evidence

Bioavailability of Minerals

- Fish is believed to enhance the bioavailability of iron and zinc from all foods in the meal, however there is need for research to identify the enhancing compounds in fish



Fish & Nutrition – The Evidence

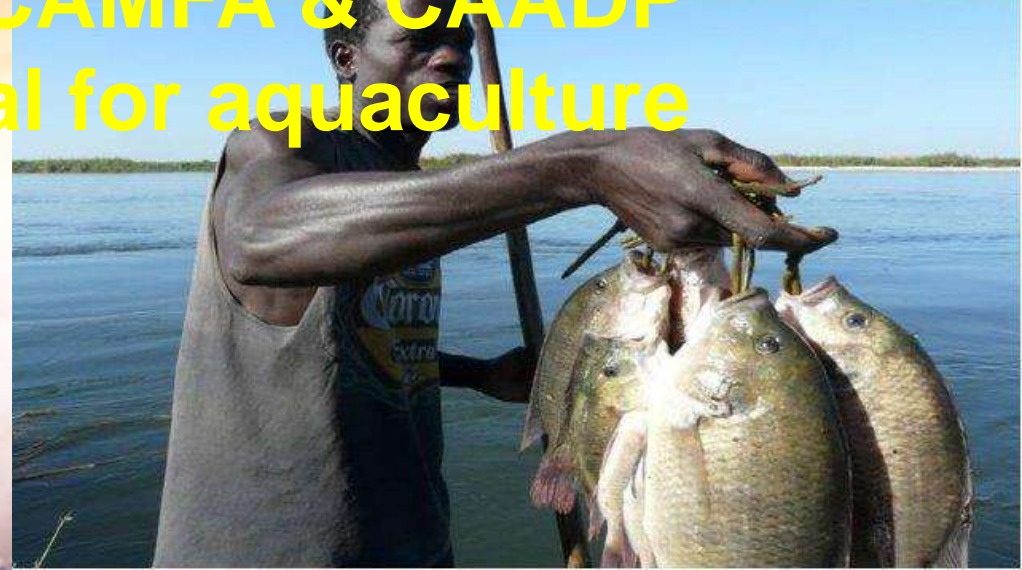
Fish & HIV/AIDS

Zambia - Clinical trials on the effects of fish and fish powder on the nutritional status and response to antiretroviral therapy of patients in clinics and treated at home and have found preliminary but strong indications that fish powder sustainably improves conditions for people living with HIV [[Banda-Nyirenda, D., Hüsken, S.M.C. and Kaunda, W. \(2009\)](#)]

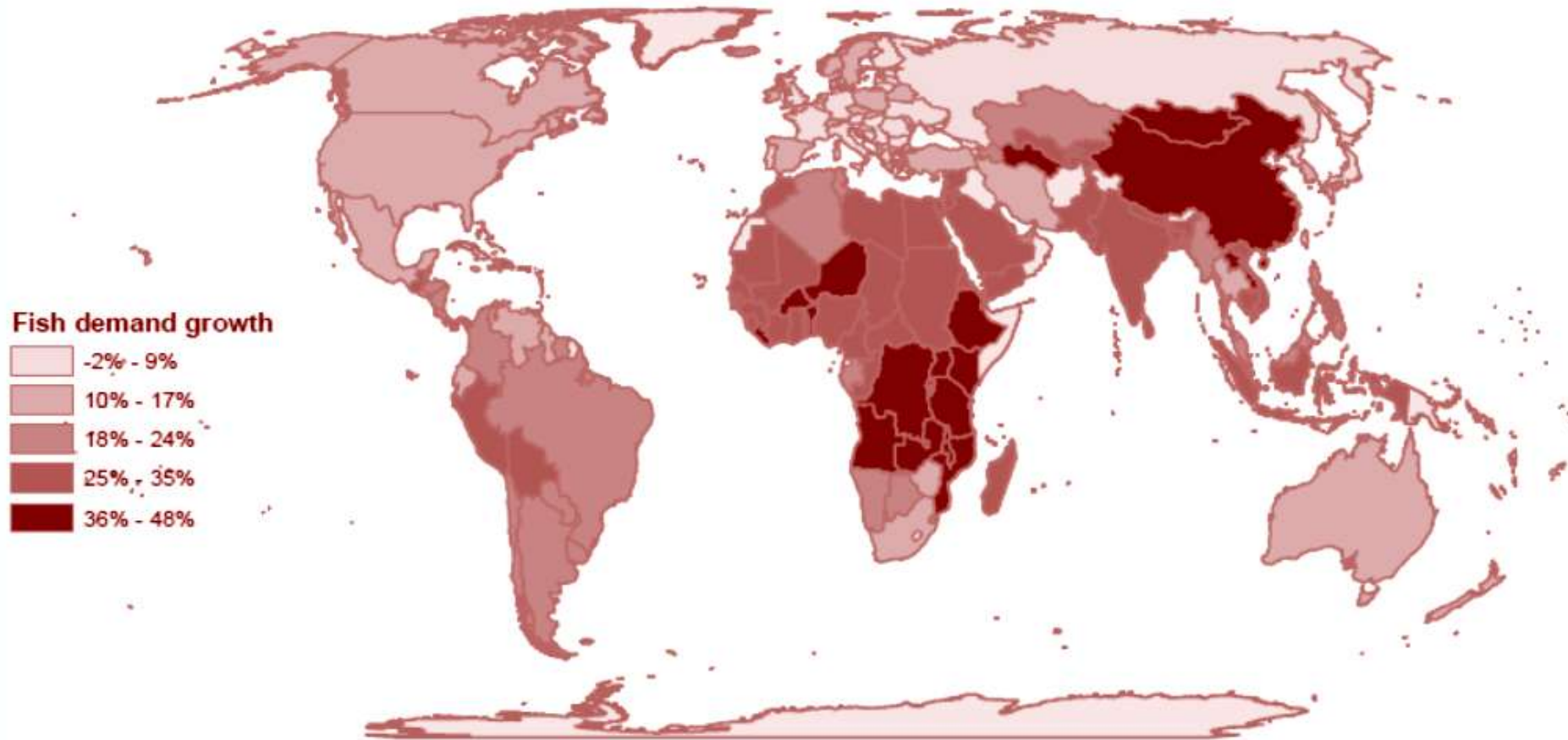
Fish & Nutrition in Africa – Opportunities & challenges



Growing demand for fish
Dietary preferences for fish
Political will – CAMFA & CAADP
Strong potential for aquaculture



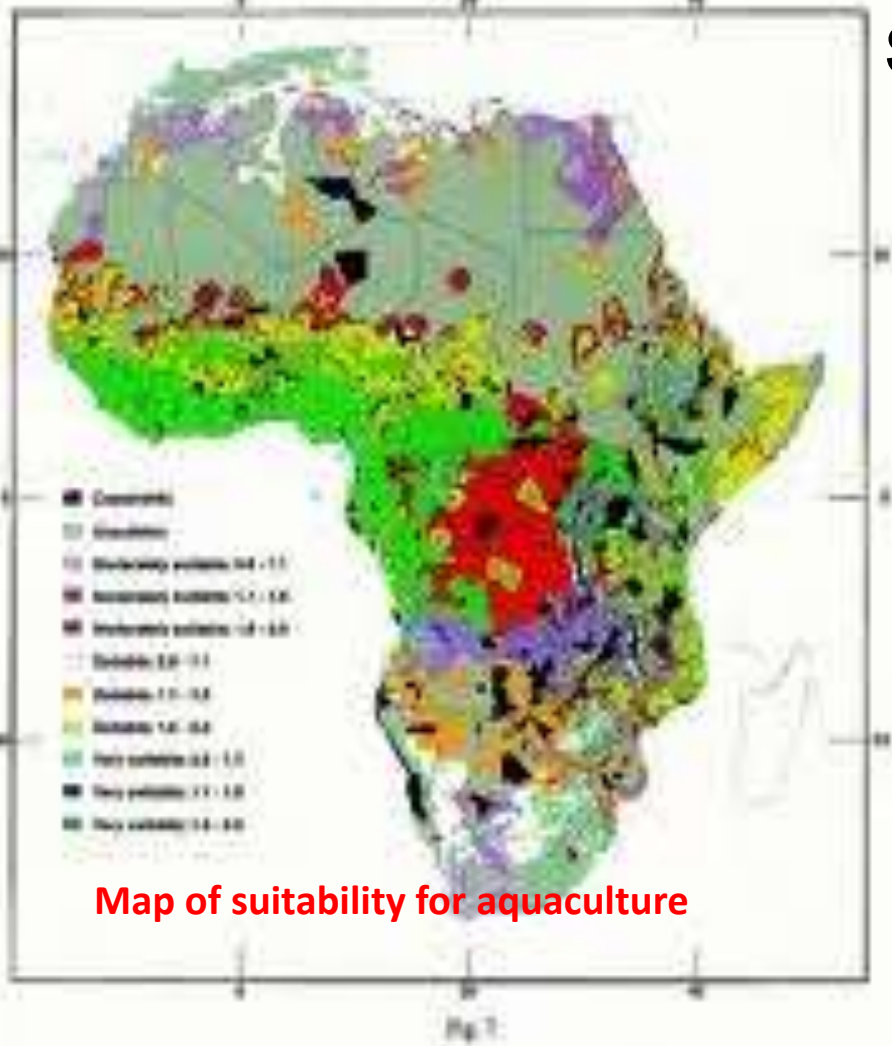
Growth in demand for fish (2007 – 2015)



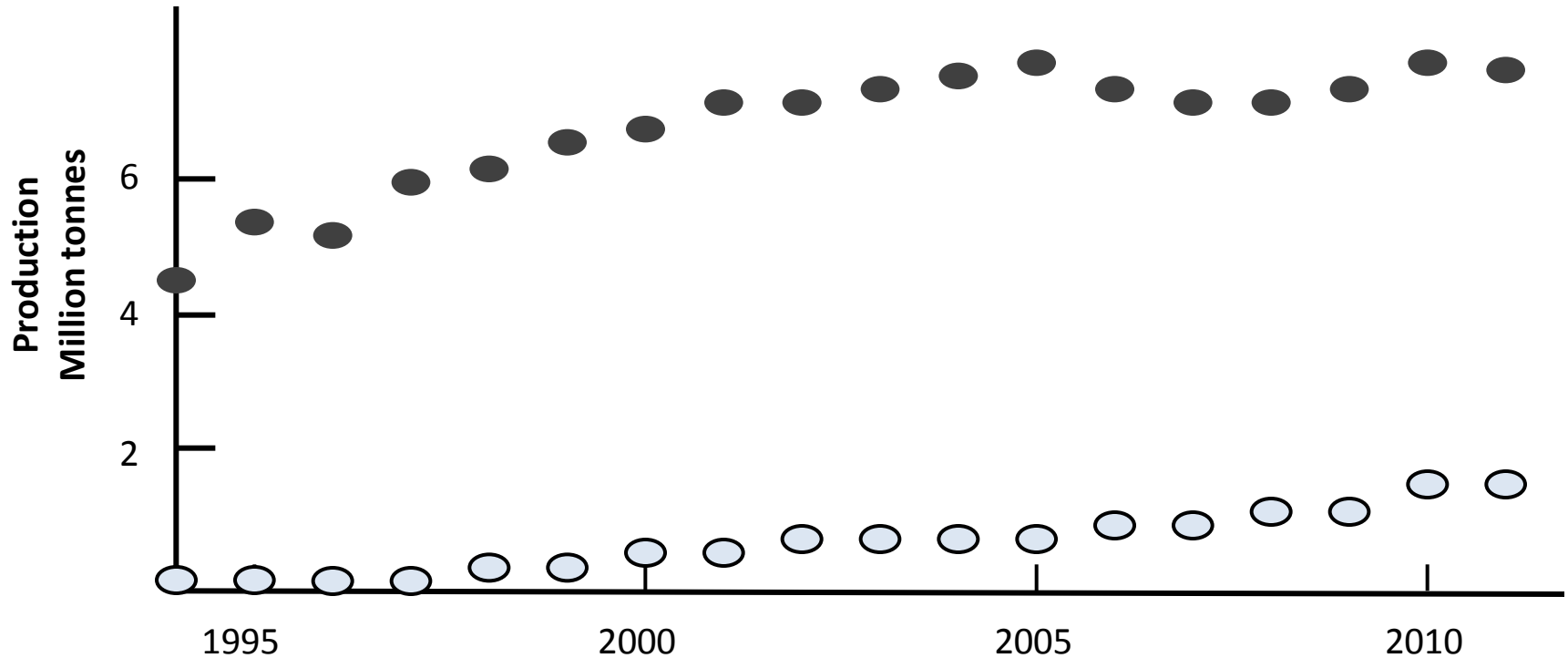
Source: Cai (2011) Preliminary notes on forecasting the country's future demand for fish.

Fish & Nutrition in Africa— Opportunities & challenges

Strong potential for aquaculture



African aquaculture lagging behind



Aquaculture

- 50% of global fish supply
- 16% of African fish supply

Fish & Nutrition in Africa – What Needs to be Done?

- ❑ Long-term fish & nutrition research, especially the role of fish in the first 1,000 days
- ❑ Increased investment in fisheries, especially aquaculture, freshwater and coastal capture fisheries
- ❑ Promoting the availability, accessibility and intake of micronutrient rich fish

Thank You

