

Aquatic foods improve diets and nourish nations

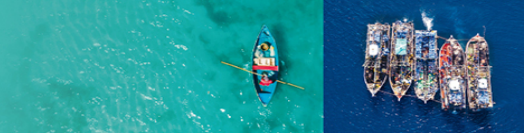
Shakuntala Haraksingh Thilsted
WorldFish



Rome, 18-21 November 2019

Session 3
Panel 3.1

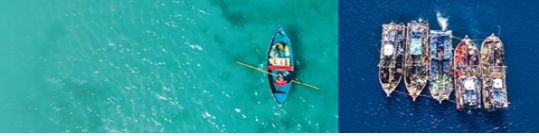
International Symposium on Fisheries Sustainability:
Strengthening the Policy-Science Nexus



Characteristics of fish and other aquatic foods

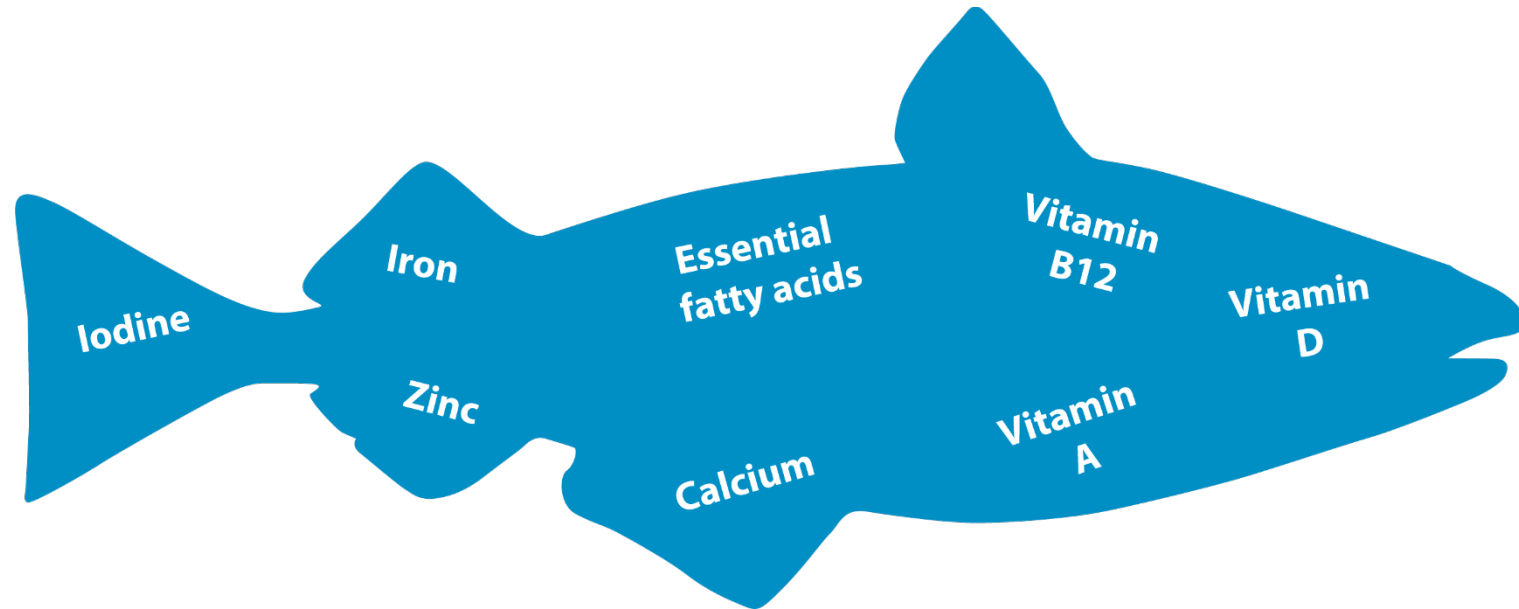
- Bountiful
- Well-liked
- Culturally acceptable
- Diverse
- Seasonal

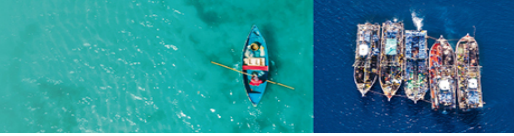




Aquatic foods improve diets and combat Hidden Hunger

- Hidden hunger: micronutrient deficiencies
- Estimated global hidden hunger: 2 billion people





Aquatic foods: irreplaceable source of multiple, highly bioavailable nutrients

- Minerals: calcium, zinc, iron, selenium, phosphorus, iodine ...
- Vitamins: B12, A, riboflavin, D, E
- Essential fatty acids
- Animal protein
- High bioavailability of minerals and vitamins
- Aquatic animals in a meal enhance the bioavailability of micronutrients in the plant-source foods (rice, vegetables)





Aquatic foods: irreplaceable source of multiple, highly bioavailable nutrients

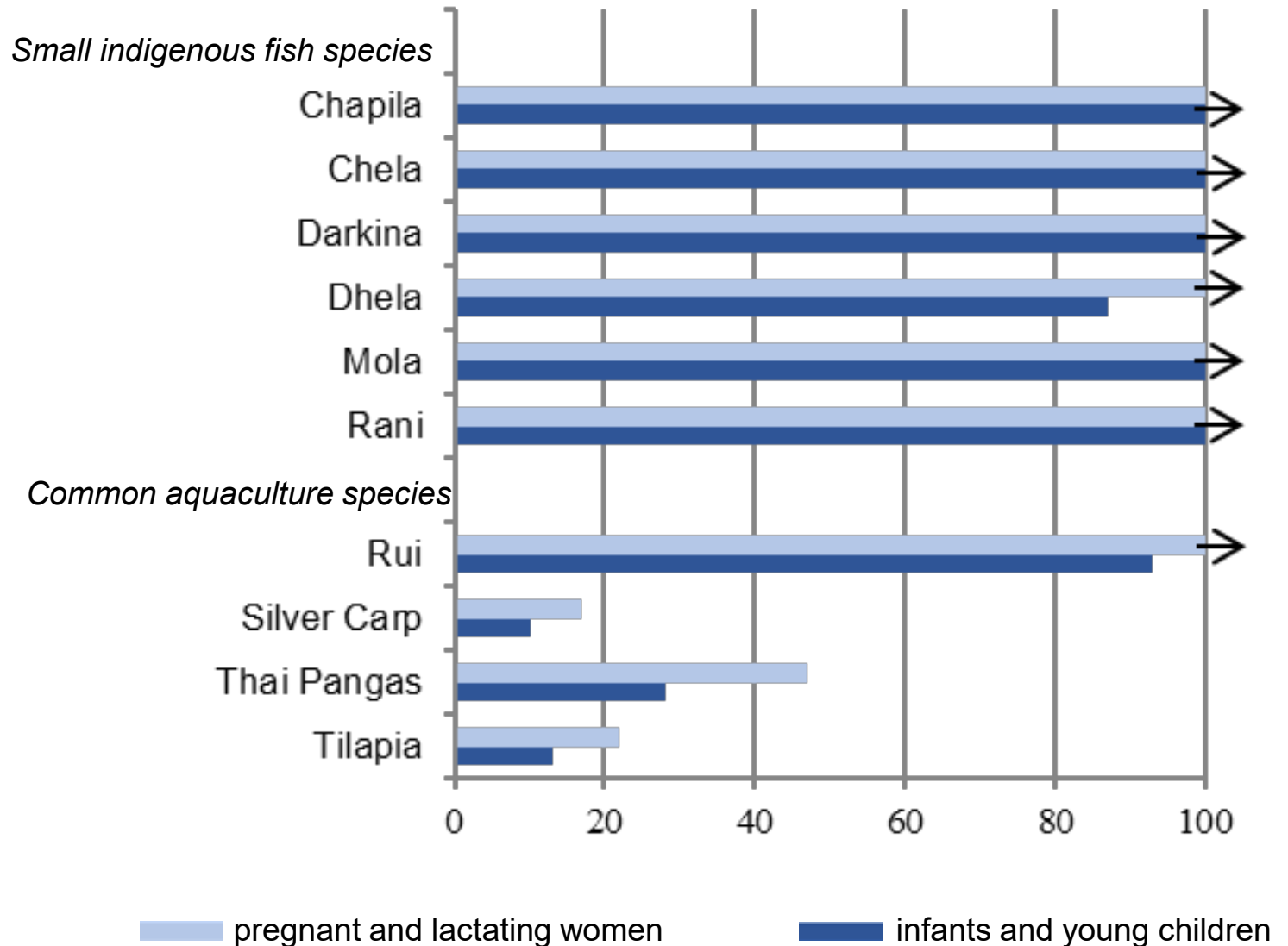
Small-size fish

- Sold in small portions; affordable to the poor
- Minimal cleaning loss and plate waste
- Cooked with vegetables and spices, further increasing micronutrient intake
- Dried and smoked, increasing nutrient density



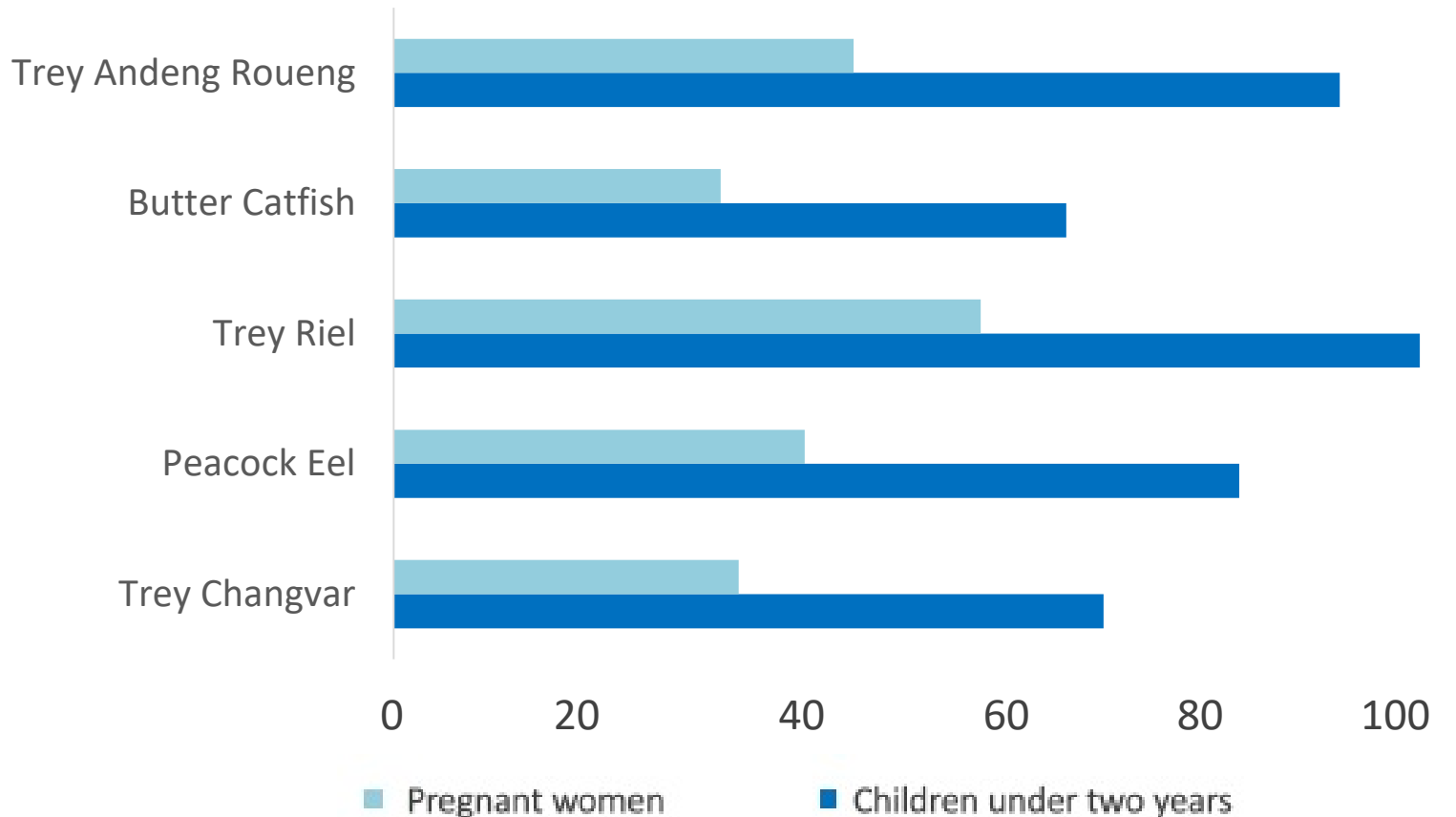


Contribution (%) of common fish species from Bangladesh to recommended nutrient intake: vitamin B12 (Bogard et al 2015)





Contribution (%) of common fish species from Cambodia to recommended nutrient intake: iron

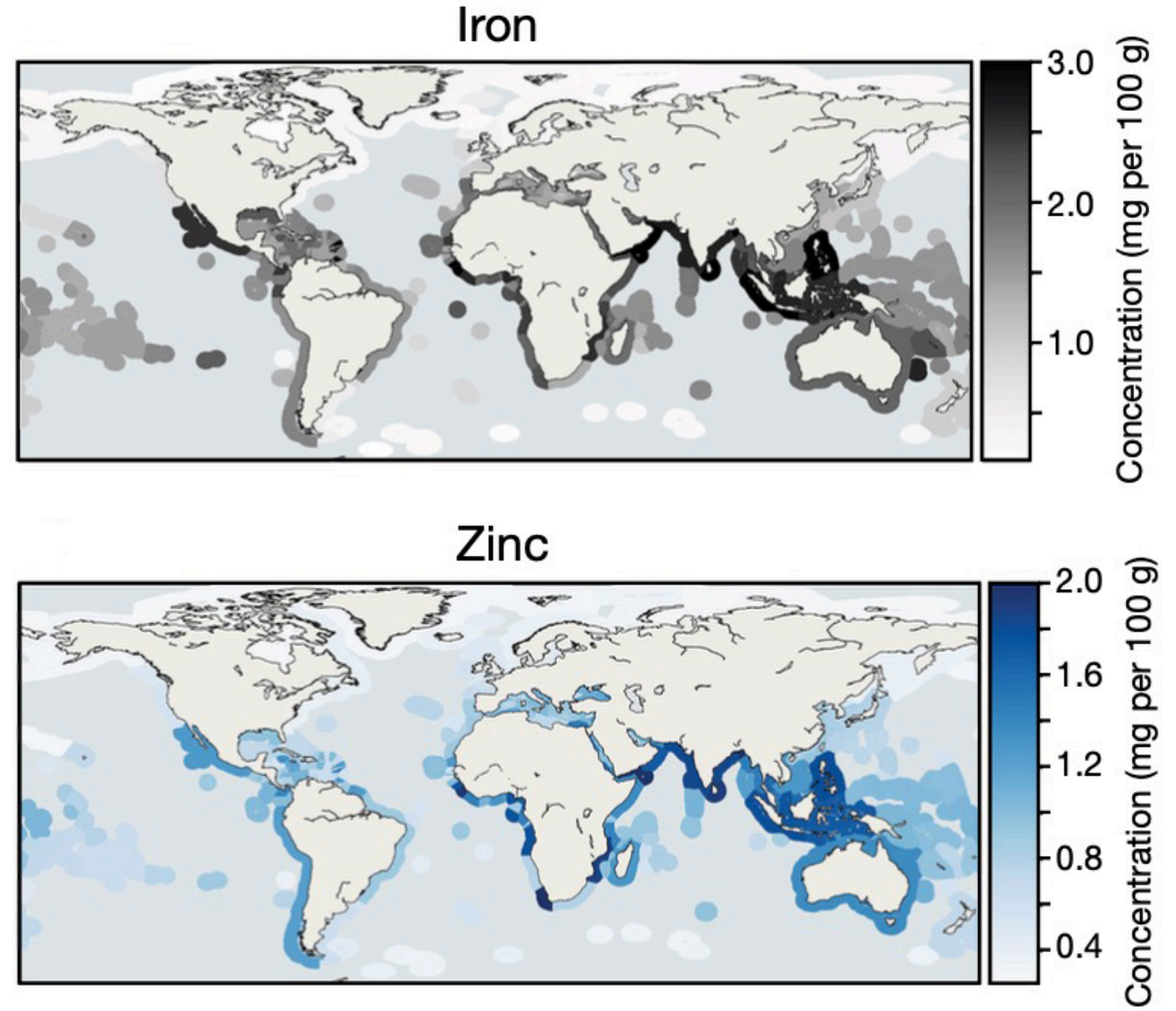


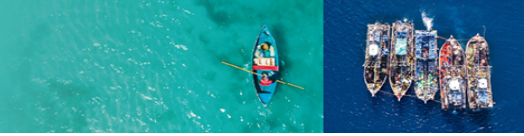
Contributions based on a 50 g serving per day for pregnant women and a 25 g serving per day for children. RNI for iron (WHO, 2004)



Harnessing global fisheries to tackle micronutrient deficiencies

(Hicks et al 2019)



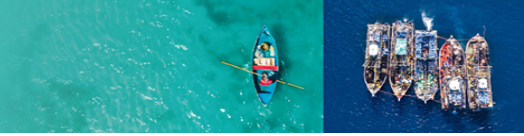


Aquatic foods: a rich source of essential fatty acids

African Great Lakes Region:

- Associations between high intake of small fish in women and concentration of essential fats in breast milk (Fiorella et al 2017; Yakes et al 2014; Kuipers et al 2005).





Fish as a superfood for the first 1000 days of life

- Strong association between high fish intake and low stunting in children (Headey et al 2017; Marinda et al 2018)
- Women consuming >113 g/week of seafood during pregnancy resulted in positive neurocognitive development in their children; average increase of 7.7 IQ points (Hibbeln et al 2019)





Piloting convenient, nutritious, safe fish-based products

Bangladesh: fish chutney for pregnant and lactating women

Vitamin B12,
vitamin A, Fe,
Zn, Ca, animal
protein



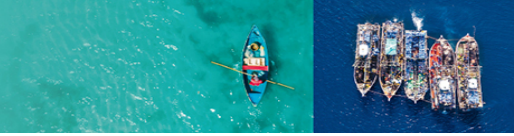
Ingredients:
37% dried small fish,
15% oil, 37% onion,
7% garlic, 4% red chili

Texture and flavor

Taste enhancer

Energy density,
EFA





Piloting convenient, nutritious, safe fish-based products

Cambodia: fish powder product for treating malnourished children





National dietary guidelines: Denmark

Focus on:

- Essential fatty acids, selenium, iodine, vitamin D
- Reduced risk of cardio-vascular diseases

Warning on:

- Heavy metals in large predatory fish





Global focus on plate of diverse, nutritious, safe foods – making space for aquatic foods

(EAT-Lancet Commission Report, 2019)



Over half of the SDGs relate to food and nutrition security



Four action points

- Invest in **analyses of nutrient content and food safety** of aquatic foods and make the data open access.
- Promote **increased supply of aquatic foods**, using a nutrition-sensitive food systems framework.
- Promote the **consumption of tasty, nutritious, safe, affordable and convenient aquatic foods** in public nutrition and health programs, focusing on the first 1000 days of life.
- Influence global and national **policy makers for policy change and investments** so that aquatic foods can nourish nations.



Food and Agriculture
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SUSTAINABLE
DEVELOPMENT
GOALS

Partnering with FAO to make fisheries sustainable

Working for **#ZeroHunger**