Workshop on sustainability and responsible sourcing of fishmeal and fish oil

Copenhagen October 25th 2019

Welcome

Views from the fishmeal sector

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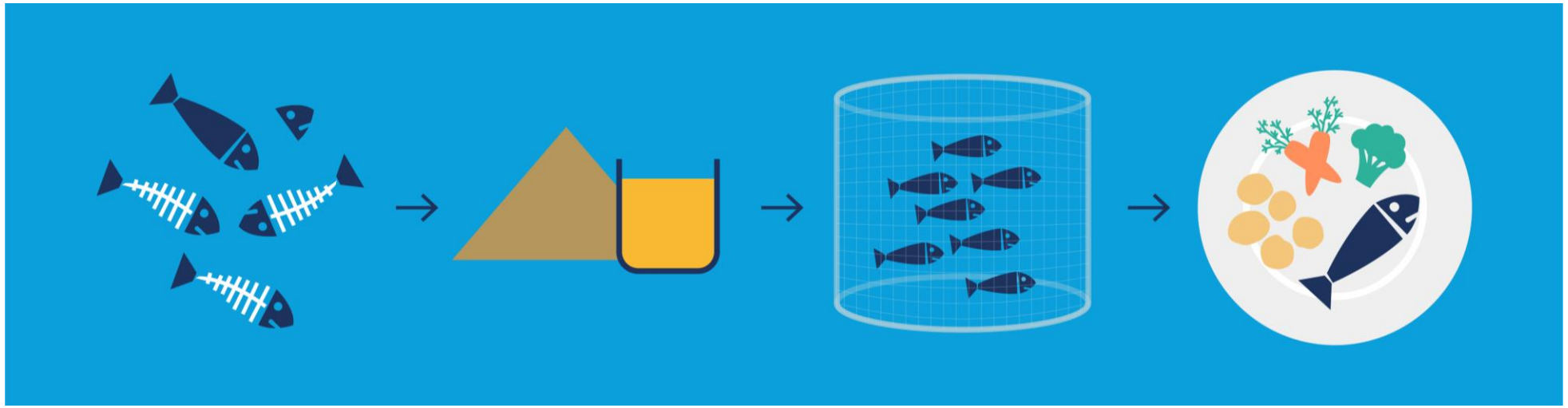
President EUfishmeal

Why talk about sustainability and responsible sourcing

Why talk about sustainability and responsible sourcing

- Our industry is central in the value chain – upstream - downstream
- Wish to engage in dialogue – understand and discuss the many different perceptions of our indsutry
- Common challenges require common solutions. We wish to be part of the solutions.
- Engagement from industry is central



Why talk about sustainability and responsible sourcing

The EAT-Lancet Commission - world leading researchers in nutrition, health, sustainability and policy from across the globe. Focus on final consumption (healthy diets) and sustainable food production. **Fish – wild catch and aquaculture is is central in both**

Without action, the world risks failing to meet the UN Sustainable Development Goals (SDGs) and the Paris Agreement, and today's children will inherit a planet that has been severely degraded and where much of the population will increasingly suffer from malnutrition and preventable disease.

50% of Earth as intact ecosystems). Moreover, there is a need to **improve the management of the world's oceans** to ensure that fisheries do not negatively impact ecosystems, fish stocks are utilized responsibly, and global aquaculture production is expanded sustainably.

Figure 1
An integrated agenda for food in the Anthropocene recognizes that food forms an inextricable link between human health a
environmental sustainability. The global food system must operate within boundaries for human health and food producti
to ensure healthy diets from sustainable food systems for nearly 10 billion people by 2050.

FAO and the Sustainable Development Goals

- In food - the way it is grown, produced, consumed, traded, transported, stored and marketed - lies the fundamental connection between people and the planet, and the path to inclusive and sustainable economic growth.

SDG2 – Zero Hunger

FACT BOX

- The number of undernourished has fallen by 216 million since 1990–92, but one in nine people on the planet still suffer from hunger.
- Only a small fraction of the around 800 million hungry have access to some form of social protection.
- Malnutrition exacts high economic and social costs on society. While two billion people do not consume enough vitamins and minerals, obesity rates have doubled over the past 30 years. Some 1.4 billion people are overweight, and 500 million obese.

A dedicated global goal, SDG2, based on a comprehensive approach to tackling food insecurity and malnutrition while promoting sustainable agriculture is an important step to achieving zero hunger and ushering in a new era of sustainable development.

Feeding a growing global population while nurturing the planet will be a monumental challenge, but it can be achieved by transforming food systems and agriculture, embracing sustainable living and working practices, improving governance and securing the political will to act.

Given the mounting pressure on global ecosystems, the food production increase must be achieved in a sustainable and environmentally sound way. Recent evidence suggests that climate change, biodiversity loss and other pressures have already reached rates of change that threaten the capacity of the Earth's ecosystems.

SDG12 – Sustainable consumption and production

Every year, the world loses or wastes about a third of the food it produces. To feed the world sustainably, producers need to grow more food while reducing negative environmental impacts such as soil, water and nutrient loss, greenhouse gas emissions, and degradation of ecosystems. Consumers must be encouraged to shift to nutritious and safe diets with a lower environmental footprint.

FAO and the Sustainable Development Goals

SDG14 – Oceans, Seas and Marine resources

14 LIFE BELOW WATER

FACT BOX

- Worldwide nearly three billion people receive 20 percent of their daily animal protein intake from fish.
- About 29 percent of commercially important assessed marine fish stocks are overfished and 61 percent fully fished.

A comprehensive approach to fisheries and aquaculture targeting small-scale artisanal fishers is well captured in SDG14. Sustainable management of ocean ecosystems is imperative for ensuring sustainable fisheries. Stewardship must balance priorities between growth and conservation, and between industrial and artisanal fisheries and aquaculture, ensuring equitable benefits for communities.

Aquaculture is the fastest-growing food sector. If it is developed in a regulated and environmentally and socially responsible way, aquaculture intensification has the potential to produce the fish needed to meet the demand for safe and highly nutritious food by a growing population.

Fishmeal

Fishmeal is a dried marine powder that holds several nutritional qualities, which makes it very attractive as a protein supplement in feed for aquaculture and agriculture

Fish oil

Fish oil is 100 % marine oil and have a high content of very essential omega 3 fatty acids. Fish oil is mainly used for the production of feed for farmed fish and as refined fish oil for human consumption (fish oil capsules)

EUFISHMEAL

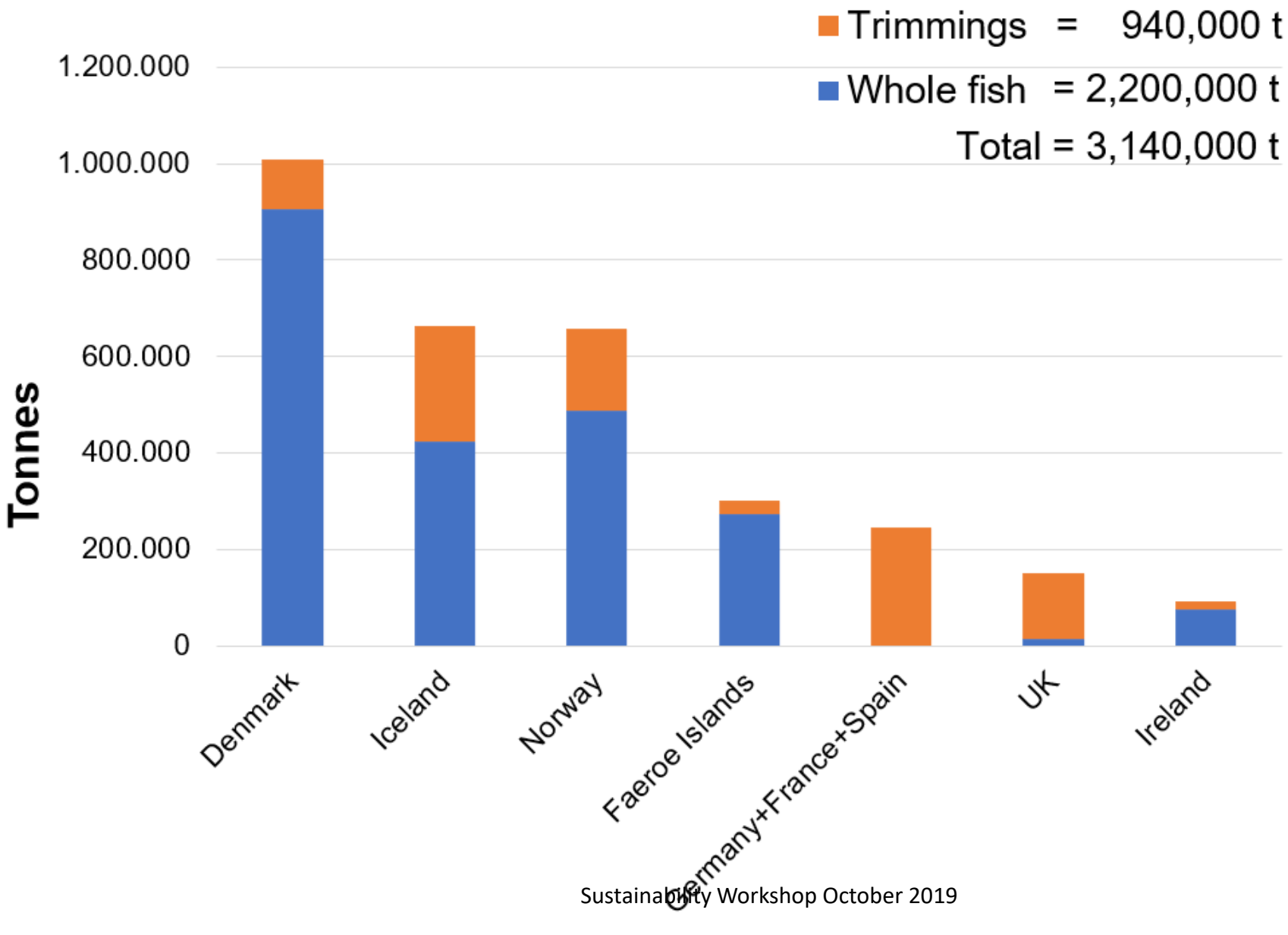
The association of European fishmeal and fish oil producers

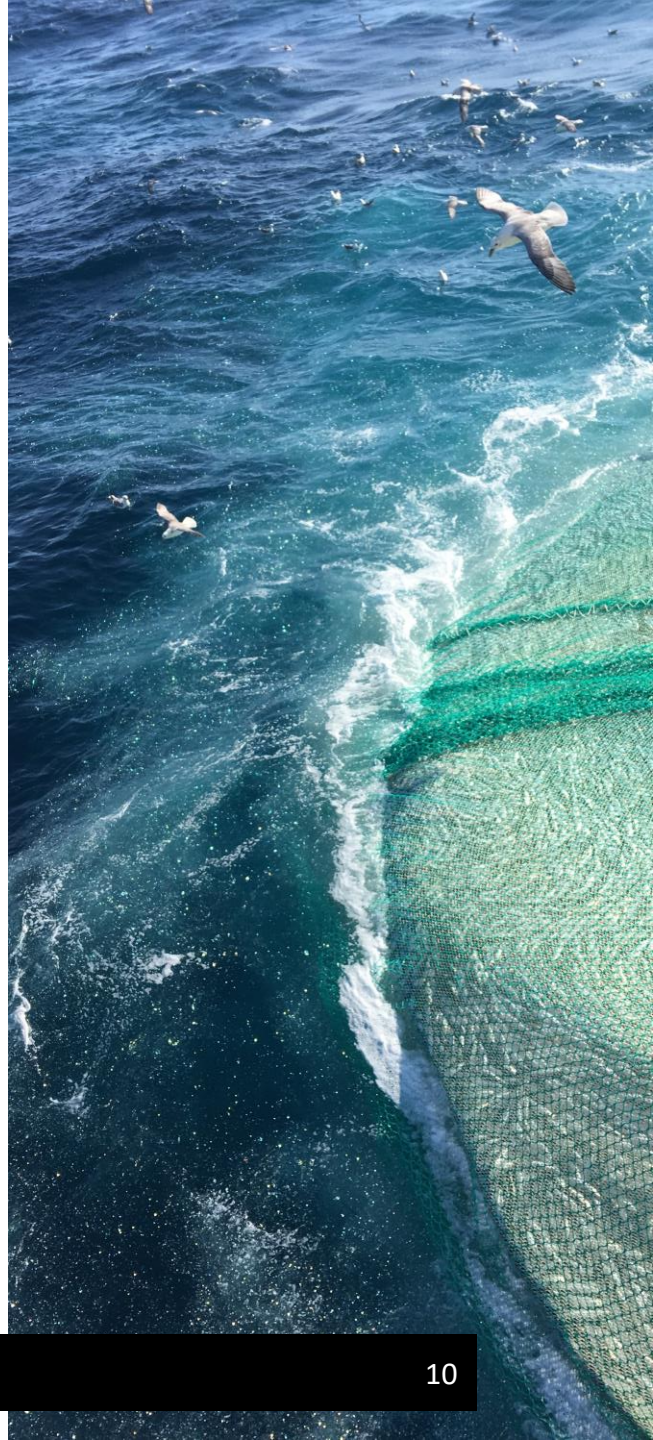
- Denmark
- Faroe Islands
- Iceland
- Norway
- United Kingdom
- Ireland
- Germany
- France
- Spain

Total of 28 factories

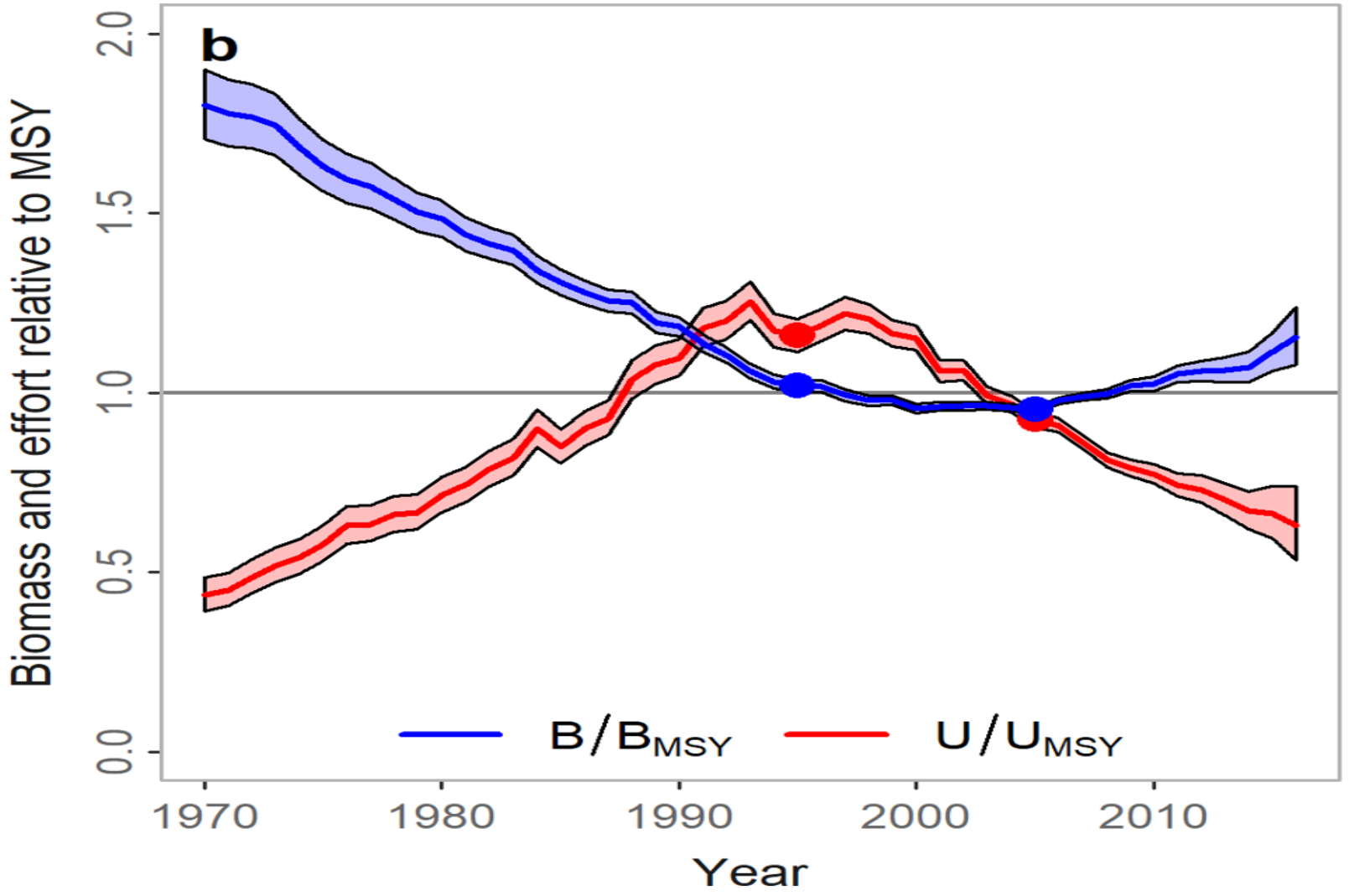
www.eufishmeal.org

Raw material received in 2018

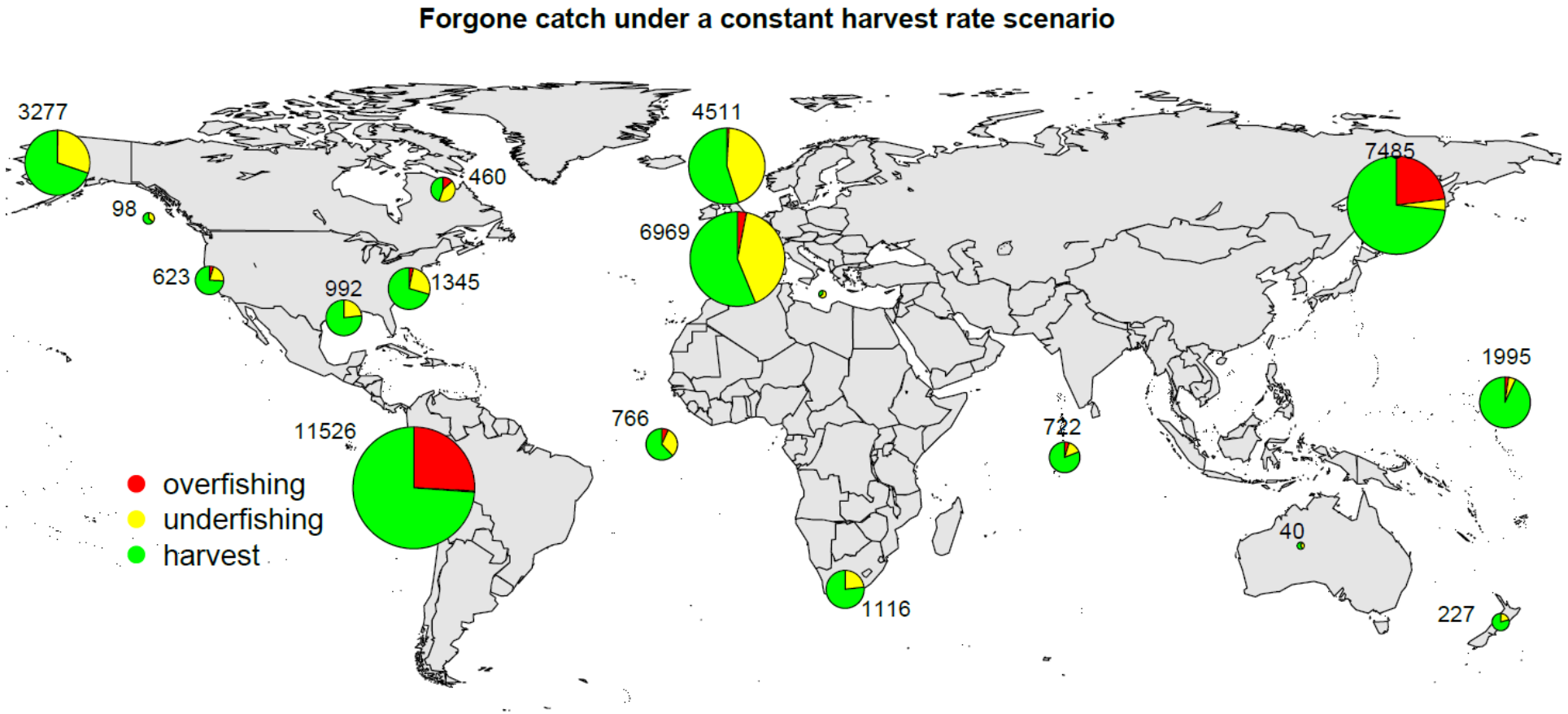




Trend in abundance and harvest rate



Yield lost by overfishing (red) and underfishing (yellow)



From Hilborn and Costello 2017. Marine Policy. The potential for blue growth in marine fisheries yield, profit and abundance of fish in the ocean.

The climate impact of fisheries and aquaculture

Study by Hilborn et.al.

REVIEWS REVIEWS REVIEWS

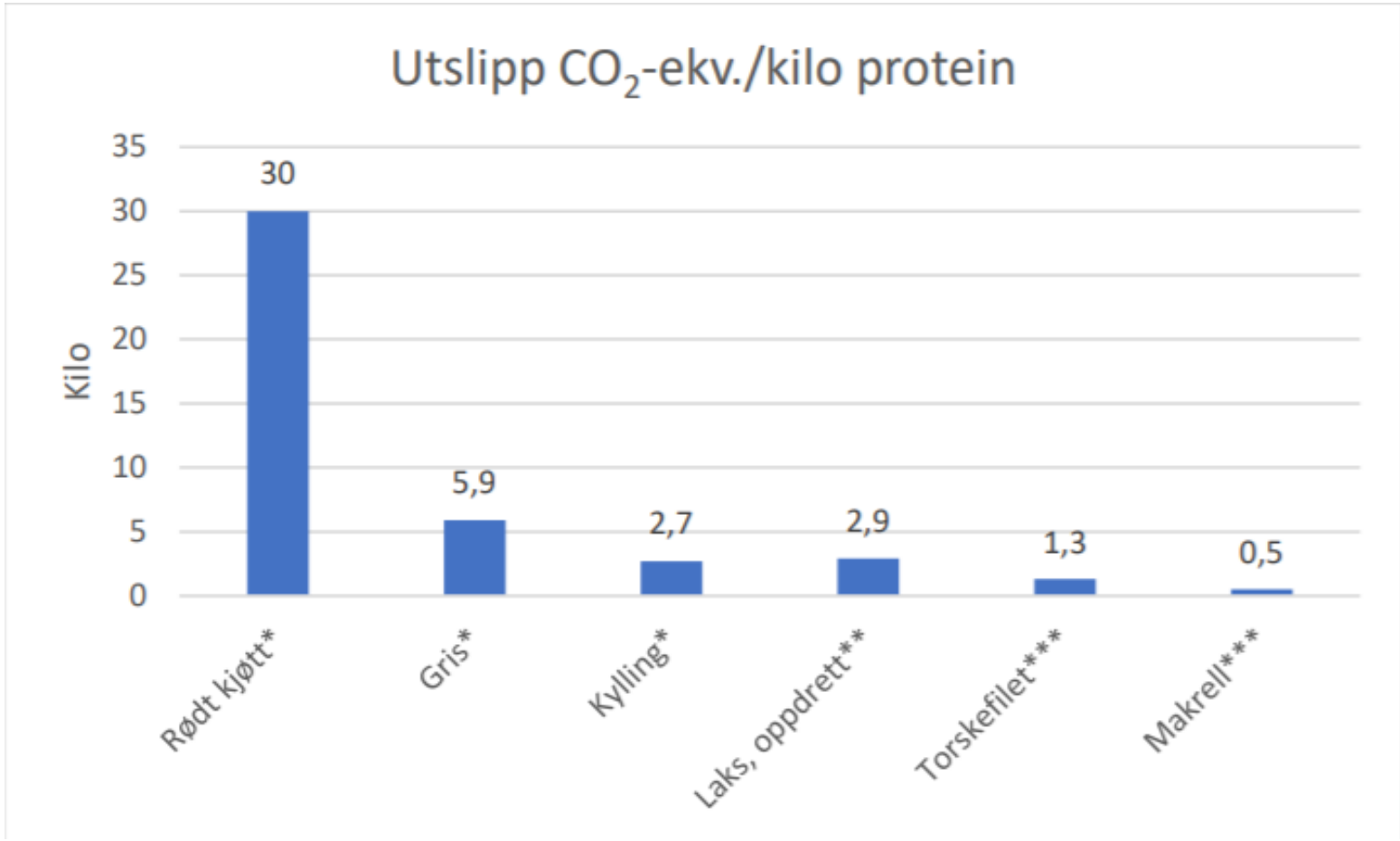
The environmental cost of animal source foods

Ray Hilborn[1]*, Jeannette Banobi[1], Stephen J Hall[2], Teresa Pucylowski[3], and Timothy E Walsworth[1]

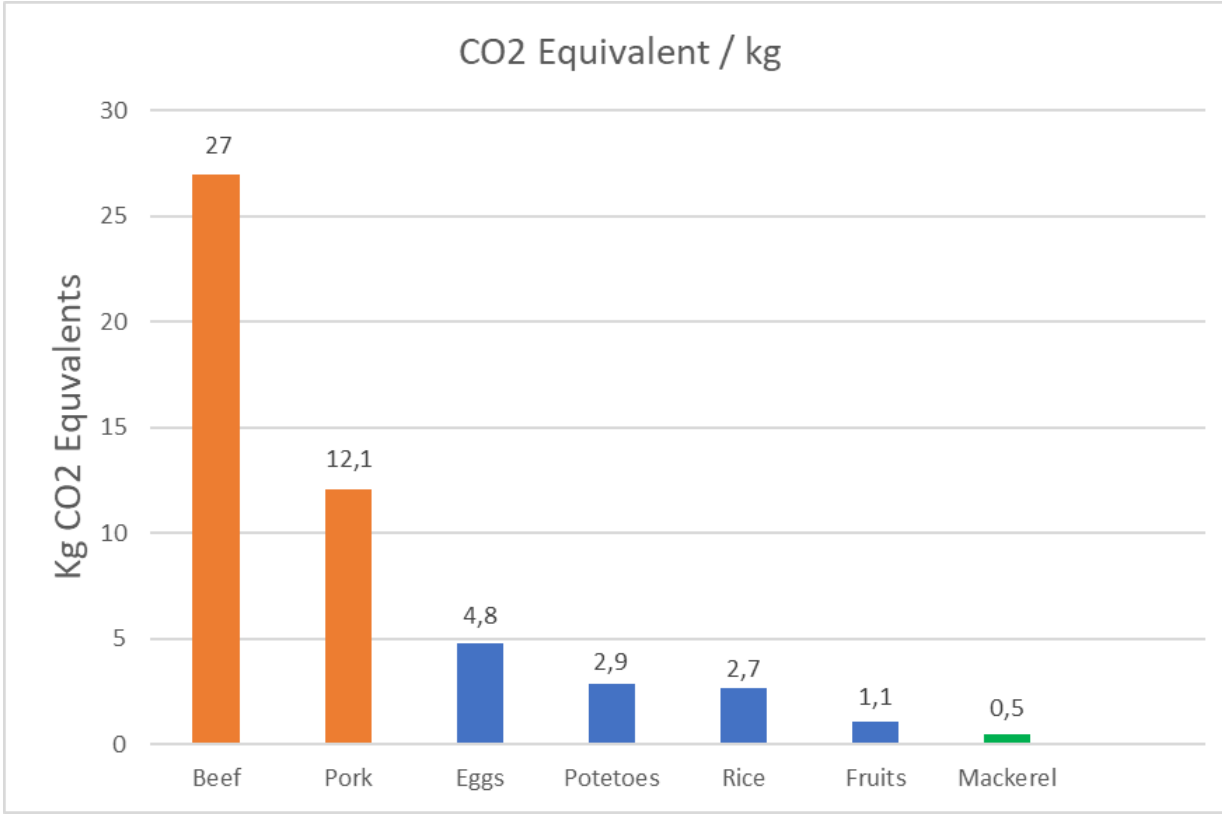
We reviewed 148 assessments of animal source food (ASF) production for livestock, aquaculture, and capture fisheries that measured four metrics of environmental impact (energy use, greenhouse-gas emissions, release of nutrients, and acidifying compounds) and standardized these per unit of protein production. We also examined additional literature on freshwater demand, pesticide use, and antibiotic use. There are up to 100-fold differences in impacts between specific products and, in some cases, for the same product, depending on the production method being used. The lowest impact production methods were small pelagic fisheries and mollusk aquaculture, whereas the highest impact production methods were beef production and catfish aquaculture. Many production methods have not been evaluated, limiting our analysis to the range of studies that have been published. Regulatory restrictions on ASF production methods, as well as consumer guidance, should consider the relative environmental impact of these systems, since, currently, there appears to be little relationship between regulatory restrictions and impact in most developed countries.

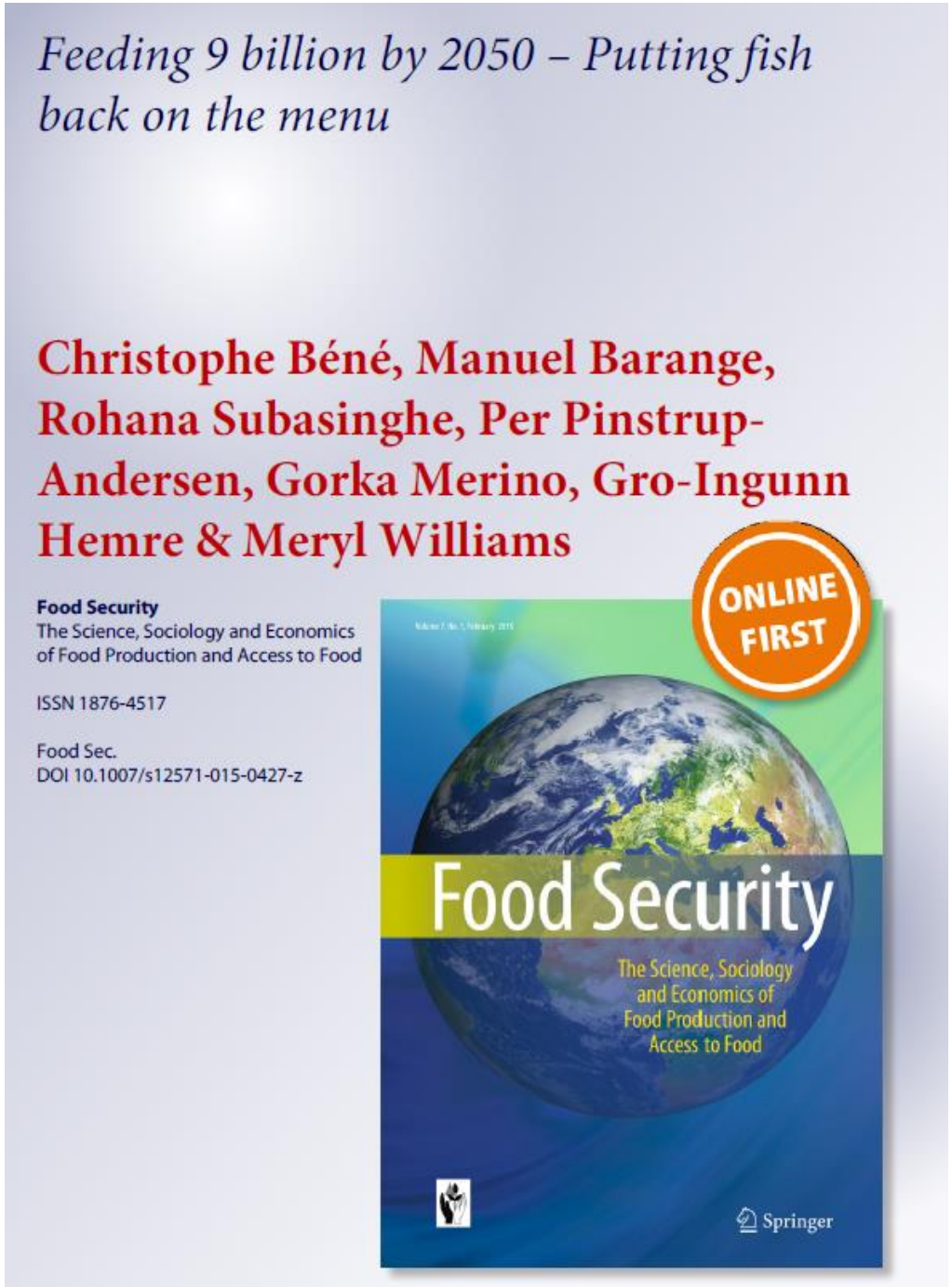
Front Ecol Environ 2018; doi: 10.1002/fee.1822

The climate impact of fisheries and aquaculture



The climate impact of fisheries and aquaculture





The role of aquaculture?

"..in terms of efficiency, fish in aquaculture systems are very efficient converters of feed into protein – in fact far more efficient than most terrestrial livestock system."

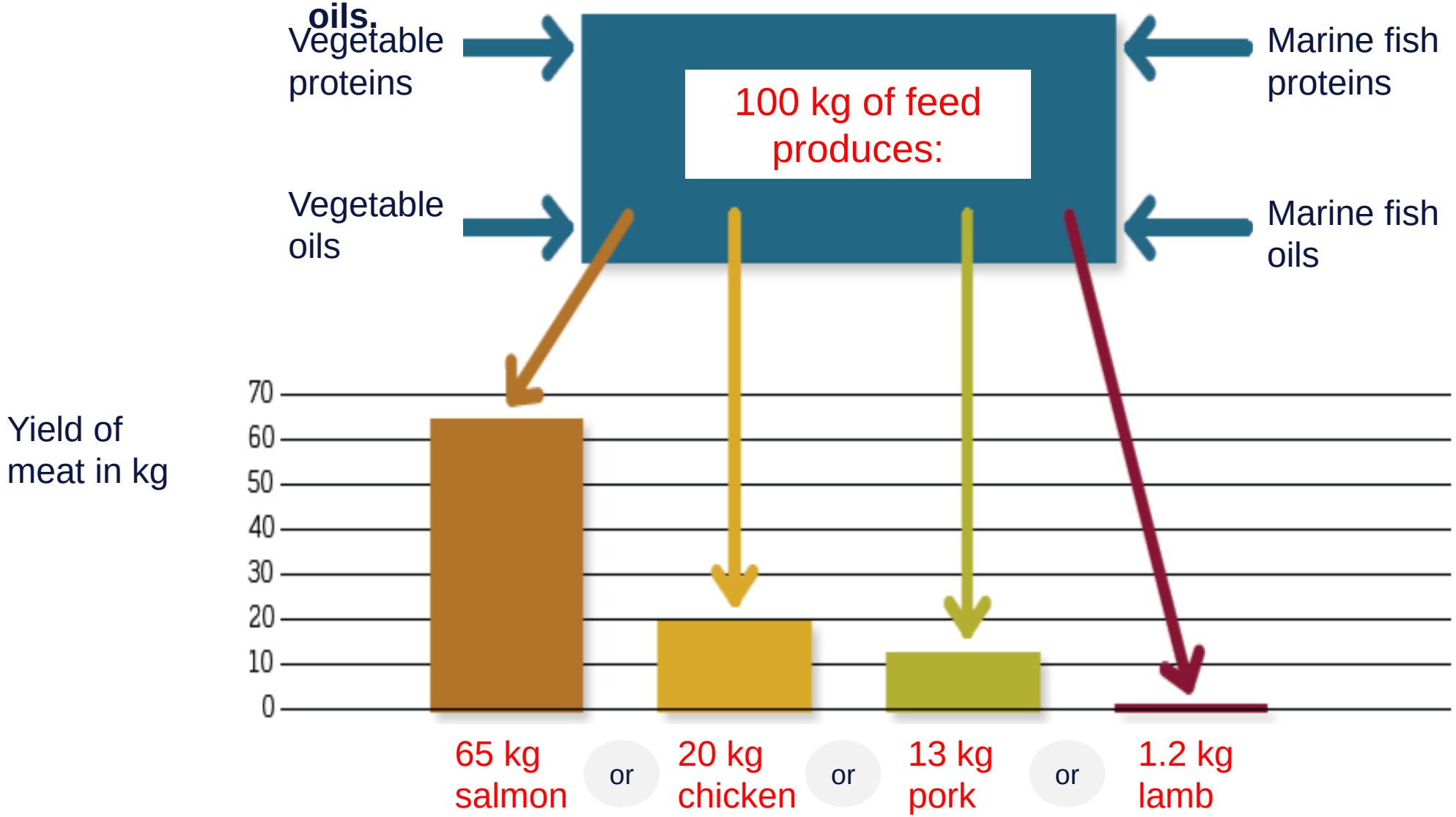
Feeding fish with fish:

FIFO (Fish in: Fish out) for the conversion of wild feed fish to farmed salmon is 1:1.22 (2015 ratio), showing that farmed salmon now produce globally more consumable protein than is used in feed

For all fed aquaculture, the FIFO is 0.22:1 (2015), or 1:4.55 (i.e. every kilogram of wild fish supports the production of 4.55kg of farmed fish)

Source: IFFO

Using 100 kg of feed for fish production in aquaculture is an efficient and optimal use of both plant and marine proteins and oils.



The yield is measured as edible meat

For potential consumers of small pelagics, it increasingly comes down to what you want to eat

…or have it converted to this one

or maybe consume no fish at all

Thank you all for coming

I look forward to an interesting day