Climate change and fisheries

A workshop of the OECD Fisheries Committee (COFI)

OECD

The Nordic Climate Change Forum for Fisheries and Aquaculture

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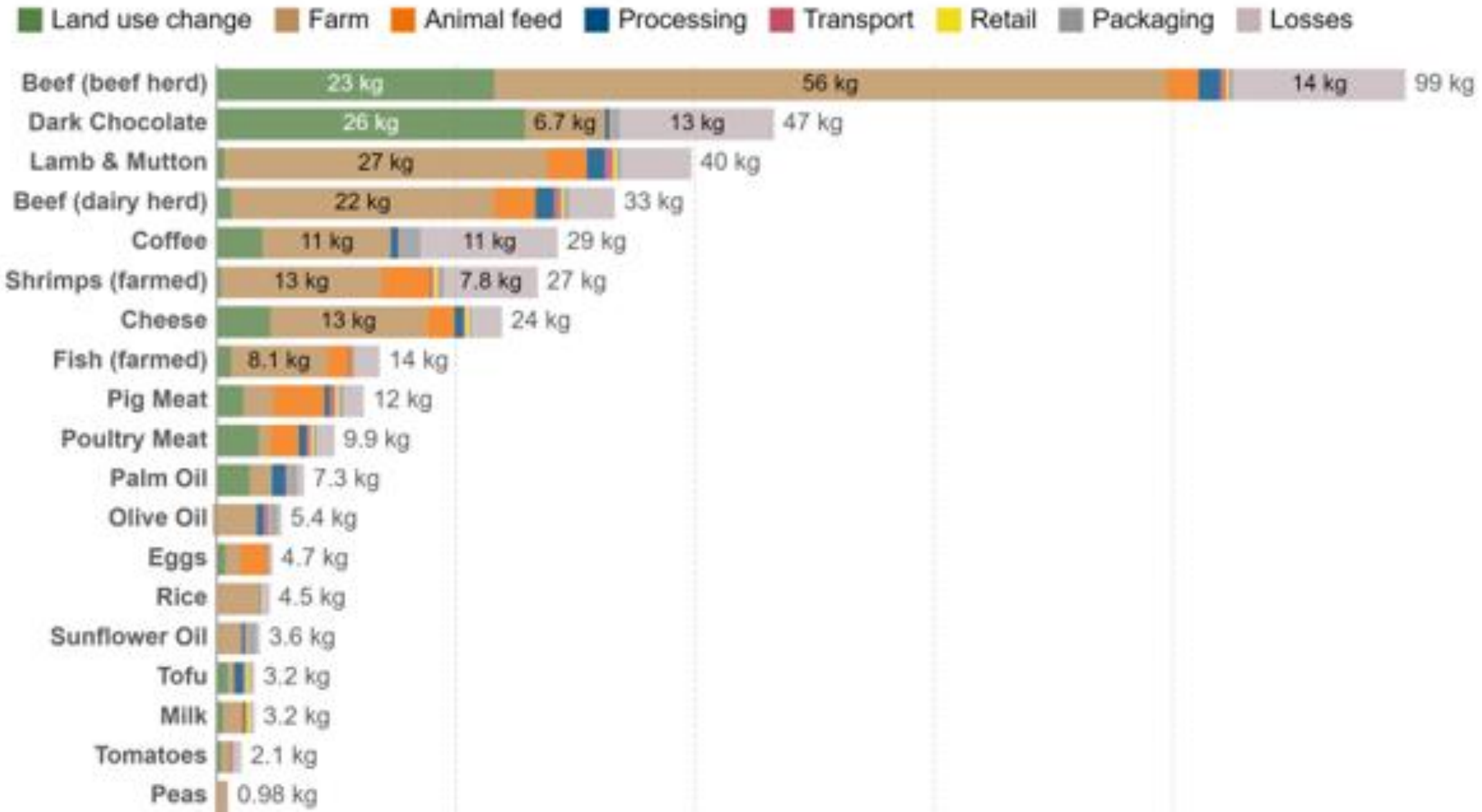
Key Messages

1) Future seafood availability will most likely be from aquaculture due to moving fish stocks and lower production from capture fisheries;
2) In the LCA area need to establish a common protocol of measuring CO2 emissions;
3) More economic research needed to better gauge the economic and social impacts of climate change on the fisheries value chain;
4) Work needed to improving consumer acceptance of new species;
5) Dedicated climate change policies in the fisheries and aquaculture sectors needs to be established;
6) Climate change considerations part and parcel of fisheries management consideration and quota allocations;
7) Review governance structure for fisheries to ensure climate consideration are accounted for. Adaptive management strategies needed.

Food: greenhouse gas emissions across the supply chain

Our World in Data

Greenhouse gas emissions[1] are measured in carbon dioxide-equivalents (CO_2eq)[2] per kilogram of food.



Energy use in Danish seafood supply

	Demersal fillet				Shellfish boiled peeled						Pickled/canned			
	Cod block		Flatfish IQF		Shrimp		Nephrops		Mussel		Herring		Mackerel	
	MJ/kg	%	MJ/kg	%	MJ/kg	%	MJ/kg	%	MJ/kg	%	MJ/kg	%	MJ/kg	%
Fishery	41	49.3	110	67.8	119	64.6	941	90.9	5	7.2	16	35	5	18.7
Landing	1.3	1.6	1.3	0.8	1.4	0.8	0.1	0	5.3	7.6	0	0	0	0
Process	4.8	5.8	7.2	4.4	15.1	8.2	15.1	1.5	10.5	15.1	4.2	9.2	3.7	13.9
Transport	5	6	6	3.7	6	3.3	8	0.8	10	14.4	6	13.1	4	15
Wholes	0.2	0.2	0.9	0.6	0.9	0.5	0.9	0.1	0.9	1.3	0.1	0.2	0	0
Retail	8.4	10.1	12.9	8	12.9	7	12.9	1.2	12.9	18.6	5.2	11.4	2.5	9.4
Consumer	22.4	27	23.9	14.7	28.9	15.7	56.9	5.5	24.9	35.8	14.2	31.1	11.5	43.1
Total	83.1	100	162.2	100	184.2	100	1034.9	100	69.5	100	45.7	100	26.7	100

Notes: Based on weight of consumed product. Shrimp data are average of shrimp and prawn categories – very small differences in fishing energy only. Herring in jars, mackerel in cans.

Source: Developed from Thrane (2004).