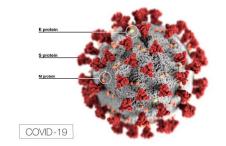
Agri-food: Covid-19 adds more strain



Tim Lang
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Panel "Challenges and Successes of COVID-19: Diverse Perspectives" at conference: 'Healthy People on a Healthy Planet: Five Years on from The SDGS in the era of een's University Belfast,

September 25 2020

10k years of food supply disruption

- · Settled agric (8500 BCE ff)
- · Iron age (5000–6000 BCE)
- Feudal & peasant agriculture (varies by region & empire)
- Industrial Revolution (C 18th)
- · Chemical Rev'n (c 19th)
- Mendelian genetics (1860s, applied C 20th)
- · Oil era (C 19th 20th)
- · Green Revolution (1960s ff)

- Nutrition transition / ultraprocessing (C 20th)
- Modern livestock revolution (1980s ff)

Emerging (C 21st)

- Ecological
- Biotechnology
- Big Data control
- · Robotics / automation

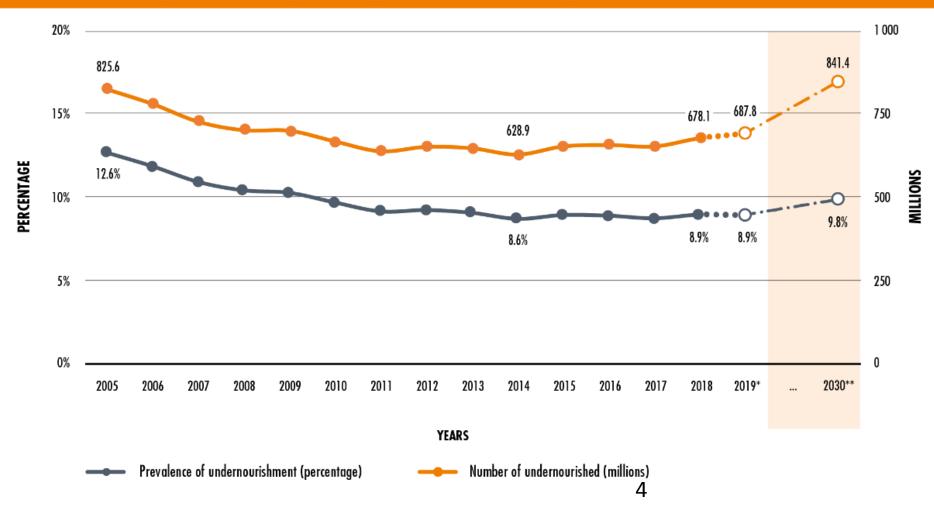
The food system is already in trouble

- · Ecosystems are stressed:
 - CO2e, H20, Biodiversity, soil i.e not just climate but their connections
- · Food economy not paying full costs
 - We need more money to primary industries
- · 'ultra-processing' food economy distorts health
 - Too much food, too much 'ultra-processed' → obesity + hunger
- · Fantasy food culture
 - Eating ad libitum (eat what, when, whence, and how we like)
 - Messages dominated by adspend little public education /advice on sustainable diets
- · Societal scale food divisions

FAO State of Food Insecurity 2020: progress halts

The number of hungry people has been slowly on the rise since 2014 – up by 10 million in one year and by nearly 60 million in 5 years.

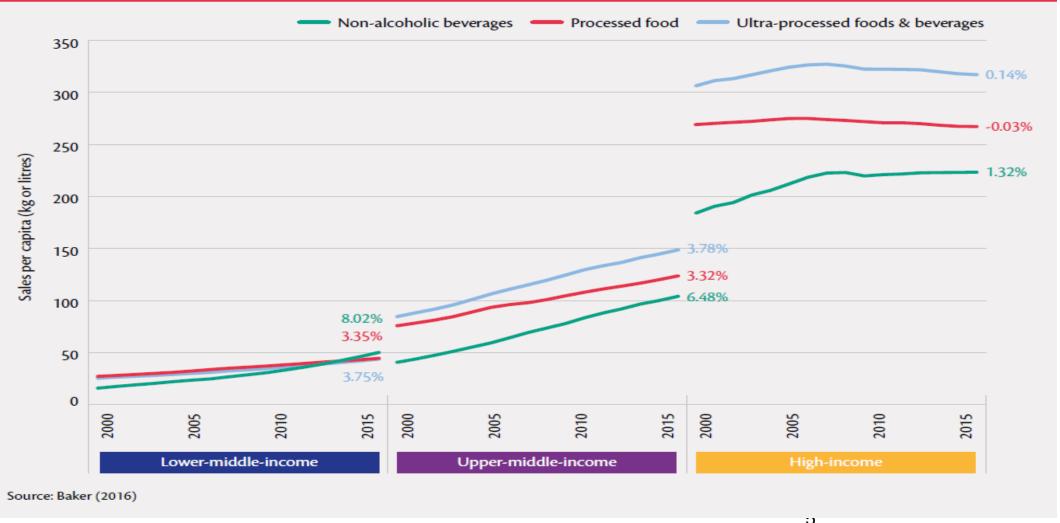
The world is not on track to achieve Zero Hunger by 2030.



The nutrition transition

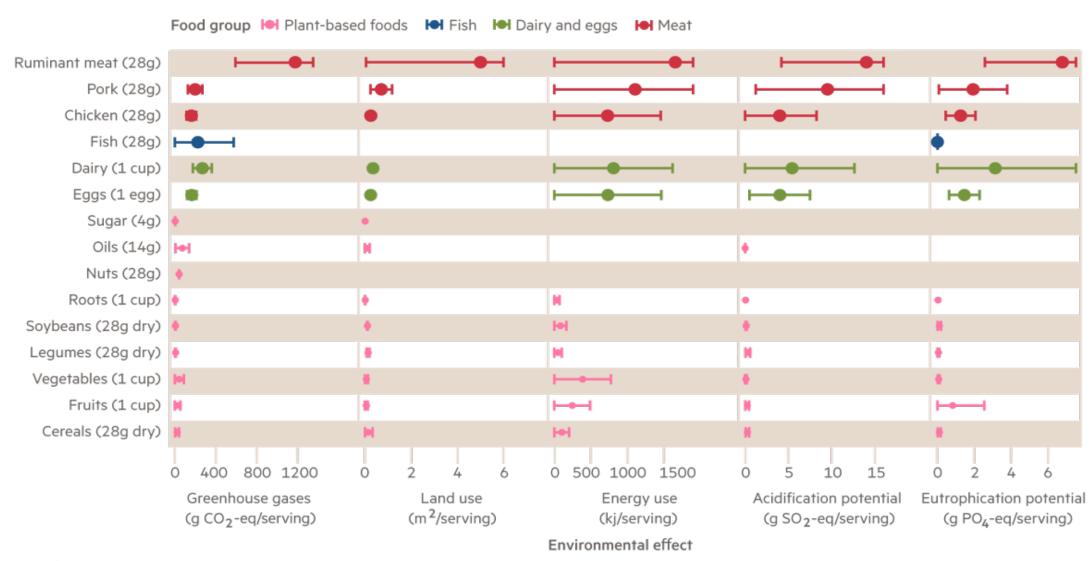
Source: Baker 2016 in GLOPAN 2016 p51

FIGURE 3.6: Trends in per capita sales volumes of non-alcoholic beverages, processed foods and ultraprocessed foods by country income group, 2000–15, with 15-year average growth rates shown



Linking human & ecosystem health: EAT-Lancet Commission 2019

Environmental effects per serving of food produced

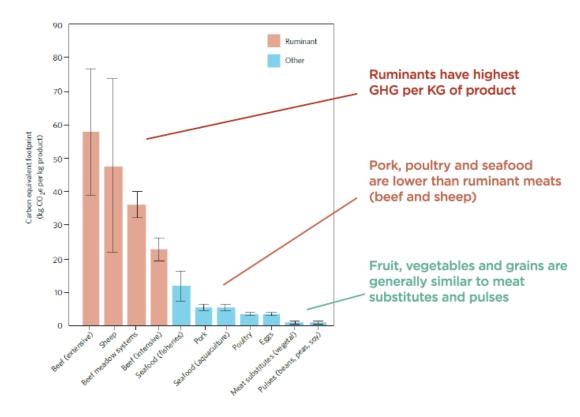


Food's greenhouse gas effect

How much impact does food have?

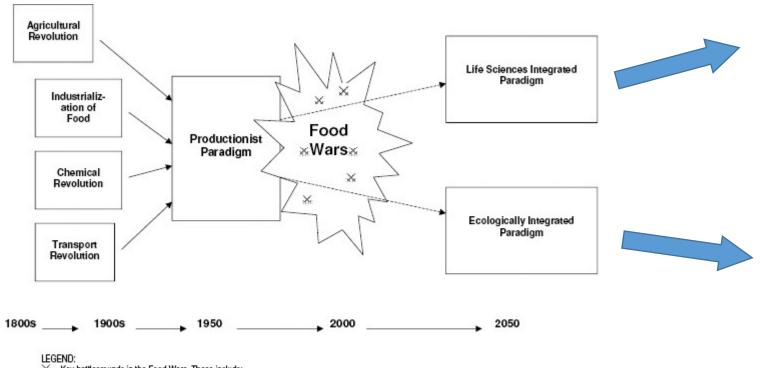
Proportion of total greenhouse gas emissions from food

Food Other greenhouse A quarter of global 26% gas emissions 74% emissions come from food More than half of food Animal products Other food emissions come from 58% 42% animal products Half of all farmed Beef & lamb Other animal animal emissions products 50% 50% come from **beef** and lamb



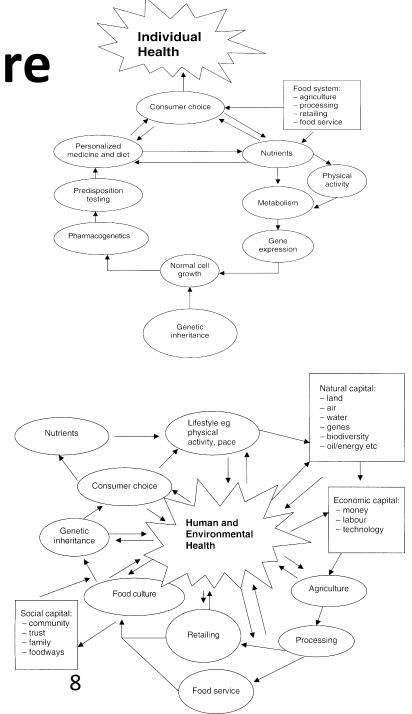
Source: Ripple et al (2014) *Nature Climate Change*, amended by FCRN

Productionism = more, more, more (No longer the answer to food)



- Diet, health and disease prevention
- Environmental crisis
- Capturing the consumer
- Controlling food supply
- What sort of food business
- Competing visions and ideologies

Source: Lang & Heasman (2015) Food Wars. Abingdon: Routledge



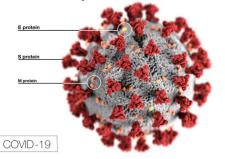
Land use is distorted: example UK Horticulture is tiny!

source: Defra (2019) Agriculture in UK Table 2.1

- Total agricultural area 18,703,000 ha
- · Croppable area 6,084,000 ha
 - Arable 4,502,000 ha
 - · Cereals 3,106,000 ha
 - · Oilseeds 609,000 ha
 - · Potatoes 140,000 ha
 - Other crops 647,000 ha
 - Horticulture 165,000 ha
 - Uncropped 265,000 ha

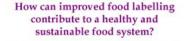
What do we do? (old themes return)

- · Appeal to reasoned consumers?
- · Choice-edit?
- · Reframe policy?
- · Leave it to markets?
- · Technical fixes?
- · Wait for crisis? (we're in one!)

















In crisis, tougher interventions needed

- Move up the Nuffield Ladder (see right)
- Move from soft to hard interventions
- · Set goals for dietary transition
- · Sustainable Diet Guidelines to reframe production
- · Public engagement:
 - Citizens juries & conventions, public events
- CHANGE LAW AND STANDARDS TO FIT REALITY

Eliminate choice: regulate to eliminate choice entirely.

Restrict choice: regulate to restrict the options available to people.

Guide choice through disincentives: use financial or other disincentives to guide people to pursue certain activities.

Guide choice through incentives: use financial and other incentives to guide people to pursue certain activities.

Guide choice through changing the default: make 'healthier' choices the default option for people.

Enable choice: enable people to change their behaviours.

Provide information: inform and educate people.

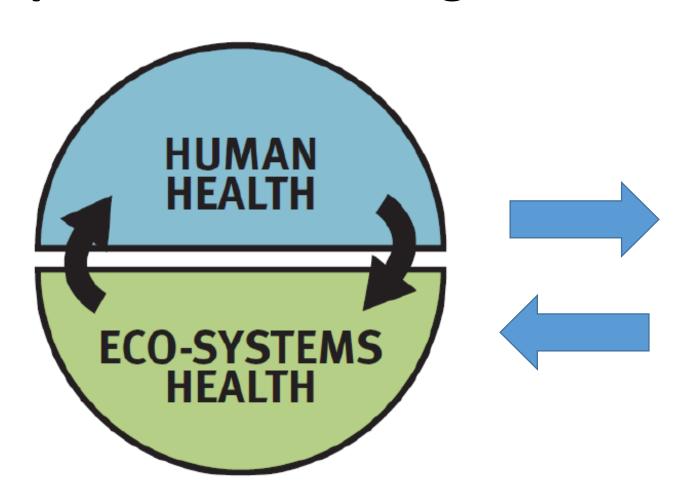
Do nothing or simply monitor the current situation.

Nuffield Council on Bioethics' Intervention Ladder

11

Greater levels of intervention

Ecological Public Health (One Health) approach requires other changes



- Society
- · Economy
- Politics
- · Culture
- · Values

A multicriteria approach to food policy

HEALTH

Safety; Nutrition; Equal access; Availability; Social status/ affordability; information & education

SOCIAL VALUES

Pleasure; Identity; Animal welfare; Equality & justice; Trust; Choice; Skills (citizenship)

ECONOMY

Food security & resilience; Affordability (price); Efficiency; True competition & fair returns; Jobs & decent working conditions; Fully internalised costs Sustainable diets from Sustainable food syst

QUALITY

Taste; Seasonality;
Cosmetic appeal; Fresh
(where appropriate);
Authenticity

GOVERNANCE

Science & technology
evidence base;
Transparency; Democratic
accountability; Ethical values
(fairness); International aid
& development

ENVIRONMENT

Climate change; Energy use; Water; Land use; Soil; Biodiversity; Waste reduction

Source: Mason P & T Lang (2017)

Sustainable Diets
Routledge

What's stopping a Great Food Transformation?

- · History intensification, cheapness = good
- · Economic squeeze on primary production
- · No overall framework now emerging in Farm-to-Fork
- · Food not taken seriously in politics till crisis (BSE, FMD)
- · Disunited opposition to status quo
- · No country on its own can do it

Thanks! t.lang@city.ac.uk

