

Challenges for the meat industry - is eating quality still important?

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Challenges for the meat industry - is eating quality still important?

- Challenges
- Why should we eat meat?
- Options for the future?
- Role of eating quality?



Are we going to be eating meat in the future?
What about these “impossible foods” that taste
as good as meat but are made from
vegetables?

Eating less meat.

We don't buy meat any
more.

Wed 31 Oct

How the food we eat destroys Brazil's savanna



Global hunger for soybeans 'destroying Brazil's Cerrado savannah'.
BBC, 31 Oct 2018.

HEALTH



High protein diets may increase risk of heart failure, finds study



INDEPENDENT

THE IRISH TIMES

Sat, Feb 16, 2019

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Meat consumption must drop by 90% to avert climate crisis, report warns

Study calls for overhaul of western diet to help environment

© Thu, Jan 17, 2019, 00:30

Updated: Thu, Jan 17, 2019, 13:12

Eoin Burke-Kennedy

▶ Video

🖼 Images



Consumers are responding

NUMBER OF VEGANS IN UK SOARS TO

3.5 MILLION, SURVEY FINDS

Seven per cent of British people have gone plant-based

Independent 3 April 2018

Vegetarian and vegan: A quarter of UK dinners have no meat or fish

🕒 7 February 2018



BBC

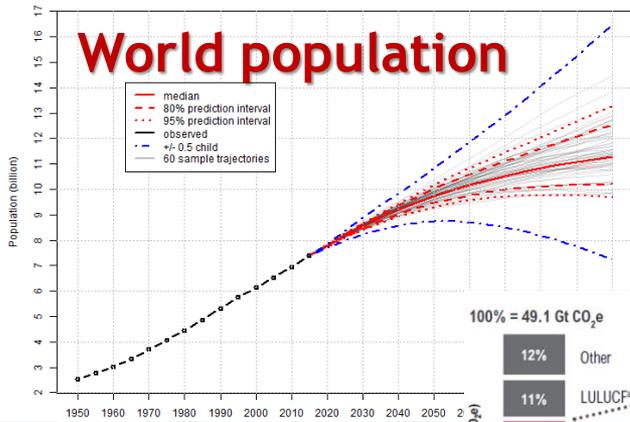


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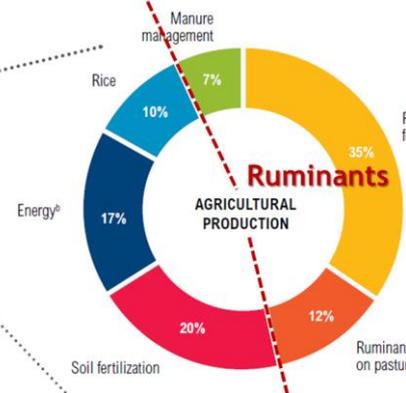
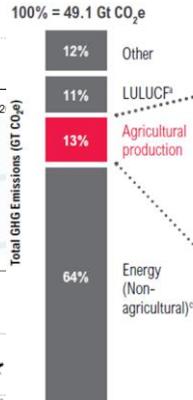


Global changes

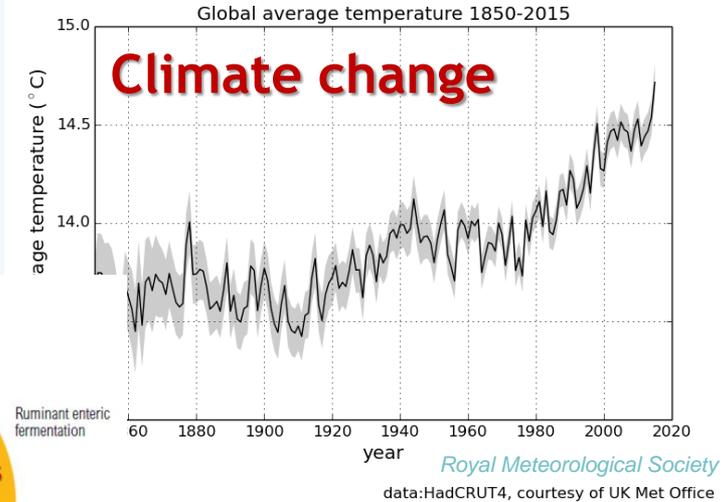
GHG emissions



United Nations projections, 2017



Ranganathan, J. et al. 2016.
World Resources Institute



Global meat production

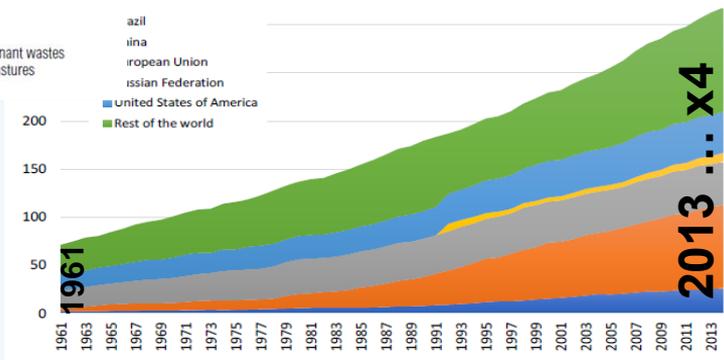
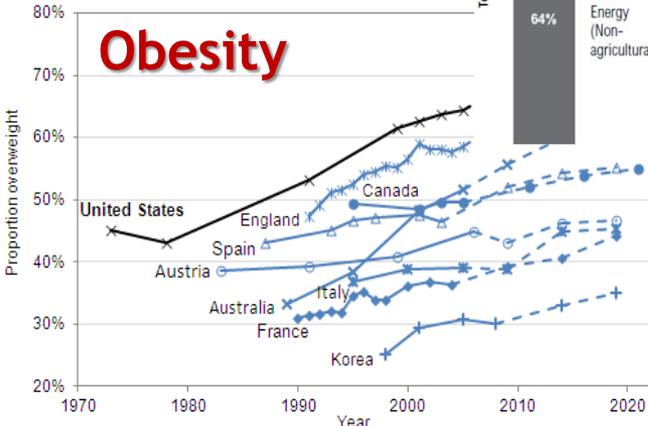


Figure 3. Meat production in the world by region 1961-2013 (data source: FAOSTAT)



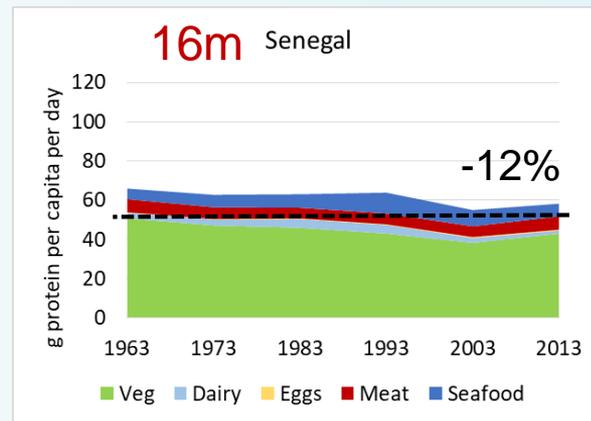
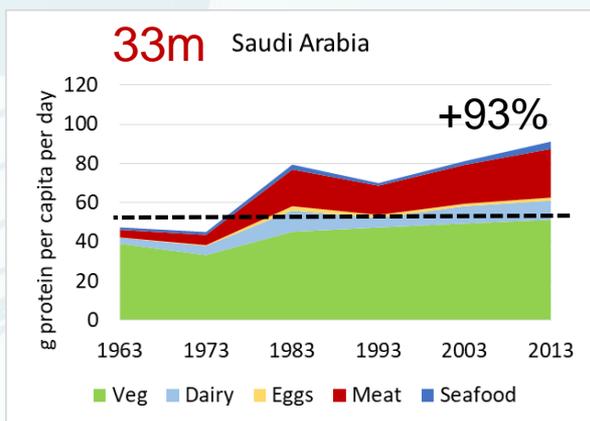
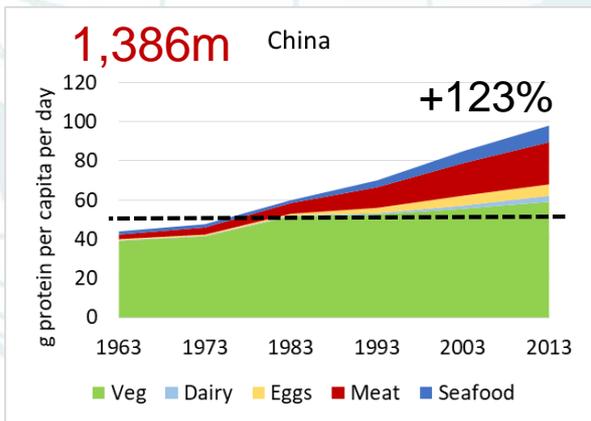
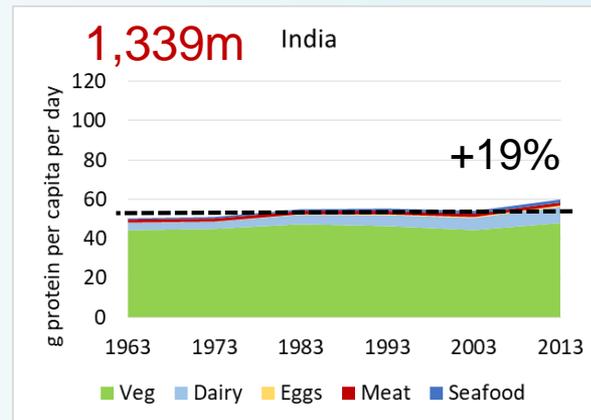
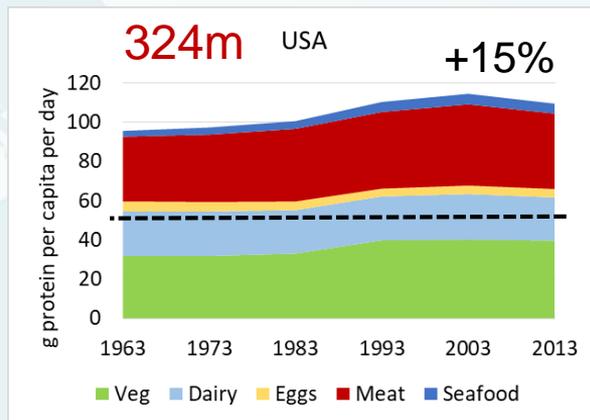
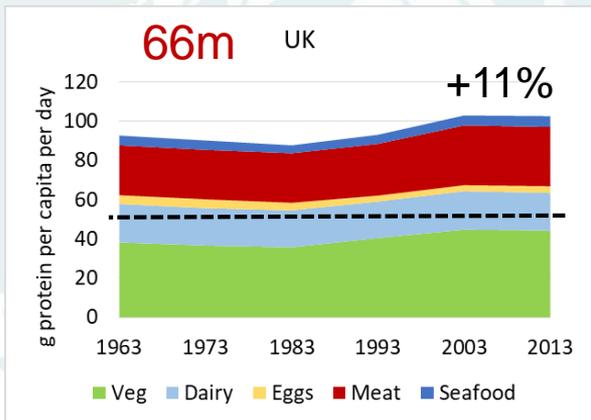
OECD

Obesity

Intake of proteins - changes over 50 years

Average intakes for example countries

FAO, United Nations, Food Balance Sheets 1963-2013
United Nations: List_of_countries_by_population



Why do we eat meat? - Nutrition

- “First class protein”

- All 9 essential amino acids

Mixed plant proteins ✓

Avoiding malnutrition, esp. developing countries

- “Minerals

- Iron, magnesium, phosphorus, zinc

Important for women, infants, older people

Also present in plants ✓ (bioavailability lower)

- Vitamins

- A, D, E, K, B12

Meat, fish, dairy are important sources

No vegetable sources of B12

- Bioactive peptides

- May benefit human physiology

Meat & dairy +

- Fats and fatty acids

- Essential n-3 and n-6 fatty acids, CLA

Fish and meat are key sources

MacNeill and Van Elswyck (2012),
Webb and O'Neill (2008),

Why do we really eat meat?

- Social
 - E.g., celebrations, events
- Cultural
 - Regional traditions
- Gustatory
 - Because we like it!
- Satisfying
 - Sustains for longer



£6.99



**CRUNCHY ROASTED CRICKETS –
MIXED FLAVOURS (3 X 9G PACKS)**

Options for the future?

- Insects
- Microbial proteins
- Plant based “meat”
- Cultured meat
- Eat less meat ...



2nd International Conference on Cultured Meat

FARM IRELAND

Thursday 1 November 2018

NEWS AGRI-BUSINESS PROPERTY DAIRY TILLAGE BEEF SHEEP MACHINERY

'Bleeding' vegan burger gets approval for human consumption in the US



The 'Impossible' burger has received FDA approval



Future?

- Communication on nutrition and environmental impact of meat is incomplete.
- BUT Protein availability IS out of balance.
 - Too high in Western countries.
 - Growing population - unsustainable.
- Will there be action by policy makers?
 - To adjust livestock production and consumption??
- Consumers are making choices.
 - What impact on demand for meat - across the world?



What role eating quality?

- 20% sirloins, 25% rumps, 53% roast topside “unsatisfactory”. [Farmer et al 2016](#)
- 75% consumers put off buying steak after a bad experience. [AHDB 2016](#)
- Consumers put off buying again for 1 - 3 months. [AHDB 2016](#)
- Willingness to pay for high quality - e.g., fillet



Item	Price
DIET COKE	
DIET COKE	£2.70
COKE	£2.70
COKE	£2.70
SPARK WATER	£2.70
FANTA	£2.70
ERD ALLO FREE	£2.70
CAESAR SALAD	£2.70
MINT MADDOCK	£2.70
MUSHY PEAS	£8.70
MINT MADDOCK	£10.90
MUSHY PEAS	£10.90
MINT MADDOCK	£10.90
SALMON/PRAWN OPEN	£9.90
VEGE FALITA	£10.90
STEAK SANDWICH	£59.50
LATTE	£2.90
TEA	£12.00
CHEESECAKE	£35.40
TOTAL	£198.10
+10%	
TOTAL	£217.90

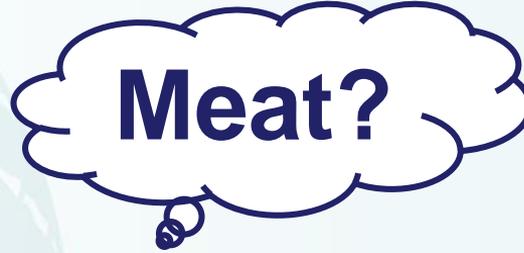


- All the ££ \$\$ €€ comes from the consumers
- Consider their dilemma!

Consumer dilemma



- Bad for the planet?
- Bad for me?
- Animal welfare?
- Expensive
- Inconsistent
- Can I cook it?



- I/we like it!
- Special occasion
- Good for me?
- Local?
- Natural



How do we respond?

- Do nothing??
- Focus on new markets across the world?
- Make food from all animal protein?
- Diversify into alternative proteins?
- Smaller portions/mixed meals - meet demand for reduced intake?
- Facts and communication - sustainability and nutritional value
- **Ensure optimum eating quality - meet expectations**



Thank you