

Does it matter if and how Britain feeds itself?

Tim Lang

Centre for Food Policy, City, University of London

t.lang@city.ac.uk

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What we need to debate

1. UK does not feed itself but does this matter?
 - *No*: it does not matter: UK is rich = can buy imports
 - *Yes*: it does matter: food imperialism, land use, sustainability
2. Are there opportunities to change the UK food system?
 - *Yes*: post-Brexit politics: NFS (Eng), GFN (Scot), Rural (Wales), NI
 - *No*: dietary change is slow (unless in crisis)
 - *Yes*: geo-political realities – oil, US 51st state, conflicts & war

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Brexit + coronavirus should be food reminders

- UK lacks an overt Food Policy
 - One emerged in 2007-10 but axed
 - 2019 NFS is delayed now – it should be driving policy
- UK downplays its Food Problems
 - See my *Feeding Britain* (Pelican, published 26 March)
- **Default policies rule e.g.**
 - ‘Let others feed us’ – the imperial hang-over
 - Leave it to the market → ‘Leave it to Tesco et al’
 - Limits of ‘Personal choice’ rhetoric - who has full choice?
- This void must be filled
- **BIG ISSUE: What do we want from our food system?**



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Lots of evidence the UK food system is in trouble (but it carries on with a tweak here or there...)

- Ecosystems are stressed:
 - CO₂e, H₂O, Biodiversity, soil – i.e not just climate but their connections
- Food economy not paying full costs
 - We need more money to primary industries
 - e.g. farm + fishing take only 8.6% of £121bn GVA <https://www.gov.uk/government/publications/food-statistics-pocketbook/food-statistics-in-your-pocket-summary>
- Food economy distorted:
 - Awash with food but too much ‘ultra-processed’
- Food culture in fantasy land
 - Eating *ad libitum* (what, when, whence, and how we like)
 - Messages dominated by adspend – little public education /advice on sustainable diets
- Society deeply divided
 - Life expectancy (e.g. *Marmot Review 10 Years on*) https://www.health.org.uk/funding-and-partnerships/our-partnerships/health-equity-in-england-the-marmot-review-10-years-on?cid=6a1a10cb3101c5ml-cj6AIVw7TCh3FZAYHAAAYASAAEgpmv0_BwE

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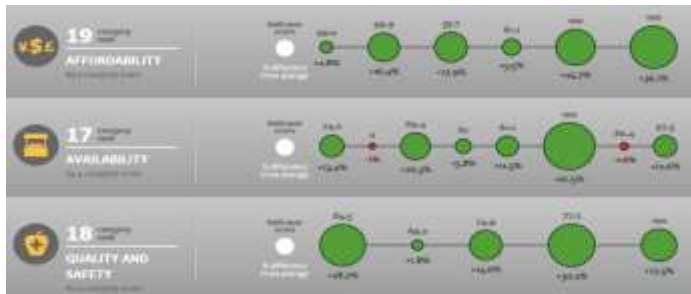
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How food secure is the UK? (Not as much as we think)

• EIU Global Food Security Index 2019

- GFSI is a conventional FS index

- UK = 17th out of 113 on affordability, availability, quality & safety.



WHAT IF SUSTAINABILITY IS ADDED?

- UK is 24th of 67 countries (EIU Food Sustainability Index 2017)
- UK is still 17th of 113 countries, when 'new' risk factor of sustainability is included to EIU GFSI (Dec 2019)

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Untangle what is meant by Food Security

Concept	What it means
Food nationalism	A country-centred focus stressing national interests, ranging from increasing self-sufficiency to full autarky.
Food self-sufficiency	The proportion of food supplies consumed by the population, derived from within that country.
Food defence	Protecting food sources and supply lines.
Food control	Actions by the powerful to exert control over food systems, from production (e.g. farm output) to consumption (e.g. rationing).
Food resilience	Capacity to withstand shock and to bounce back after shock or change.
Food risks	Factors which alter the food status-quo and whose impacts are measurable.
Food capacity	Capabilities and skills deemed necessary to produce food to meet needs.
Food sovereignty	A term coined by small farmer organisations to indicate societal control over food supply.

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UK has a history of messy food policy

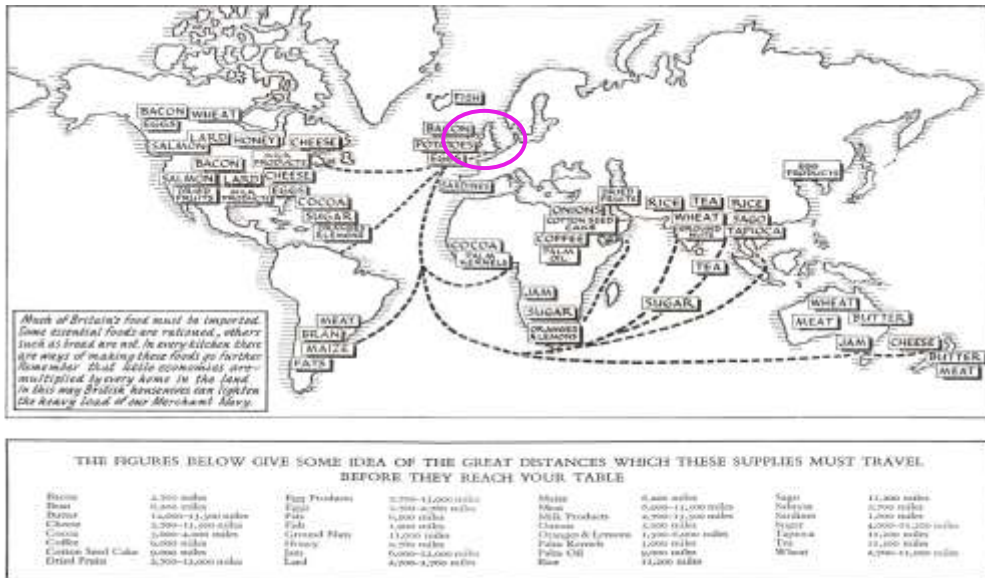
- 1846: *Repeal of Corn Laws* – long decline of UK food production
- 1899-1902 *Boer War* – UK trounced on occasions by Boers
→ Royal Commission on Supply of Food & Raw Material in Time of War (1905)
- 1916-19 *WW1* → Ministry of Food (quickly closed down → bau)
- 1936-45 *WW2* → Ministry of Food (again)
- 1967-73 *Europe - Common Mkt & CAP* → rural support + food supply
- 2007-10 *Commodity crisis and Great Recession* → Defra *Food 2030*
- *Brexit no-deal* planning: → er, not much,
- *now coronavirus....*

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Where the UK's food came from in 1939

source: Lord Woolton's map when he took as Minister of Food in 1940



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Widening Food Trade Gap: value of imports and exports food, feed and drink, 1993-2018 (- £24.3bn in 2019)

source: Defra 2019 / 2020



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UK Food Trade Gap, 2018: imports and exports, by major commodity group, EU & non-EU, £bn source: Defra, 2019, charts 13.1a & b

Food group	Exports to EU, £bn	Imports from EU, £bn	Exports to non-EU, £bn	Imports from non-EU, £bn	Total exports, £bn	Total Imports, £bn	Food trade gap EU + non-EU, £bn
Fruit & veg + preps	0.99	7.02	0.27	4.09	1.26	11.11	-9.85
Meat & meat preps	1.52	5.59	0.36	1.21	1.88	6.80	-4.92
Beverages	2.87	4.21	4.77	1.62	7.64	5.83	1.81
Cereals + preps	1.52	3.30	0.62	0.80	2.14	4.10	-1.96
Dairy & eggs	1.48	3.34	0.41	0.05	1.89	3.39	-1.50
Fish + fish preps	1.28	1.08	0.52	2.10	1.80	3.18	-1.38
Miscellaneous edible preps	1.38	2.66	0.72	0.61	2.10	3.27	-1.17
Coffee, tea, etc.	1.12	2.56	0.42	1.18	1.54	3.74	-2.20
Animal feed	0.83	1.33	0.36	1.04	1.19	2.37	-1.18
Oils, fats & oil seeds	0.54	1.04	0.08	0.82	0.62	1.86	-1.24
Sugar + preps	0.33	0.81	0.12	0.37	0.45	1.18	-0.73

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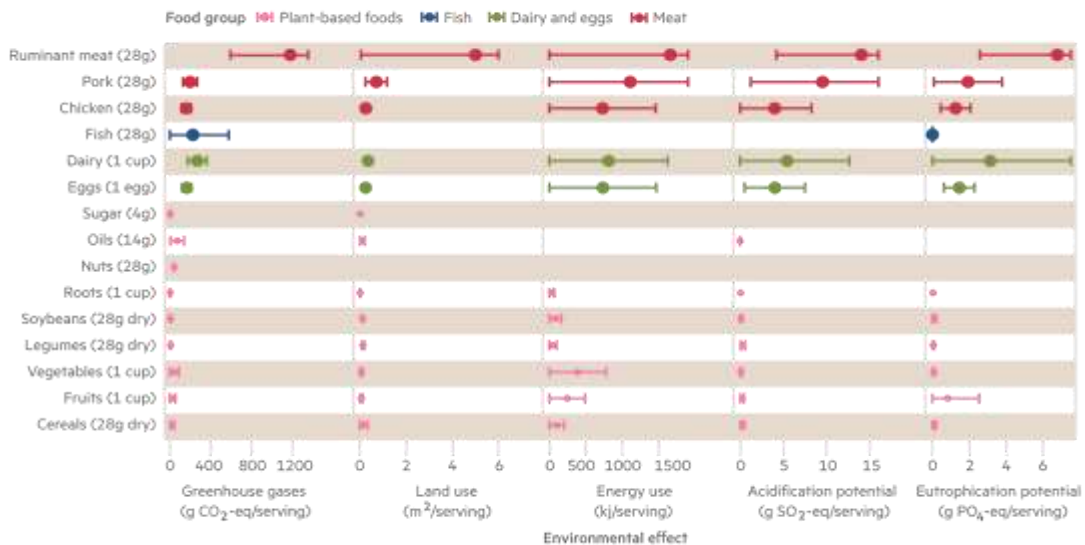
What vision now for UK food? (source: Lang (2020) *Feeding Britain*, Pelican, part 3)

Policy vision	Focus for food source	Some of what it means for UK farming and food	Some of what it means for consumers	Potential hotspots
Atlanticist	N. America /USA	Competition from even more intensive production	Cheap beef and a possible welcome back to spam and tinned peaches?	Food standards: chlorinated chicken, hormone-fed beef
Globalist	Anywhere, everywhere	Food deals subsumed within wider trade deals	Cheapest food	Traceability
Imperialist	Commonwealth countries	Completion more likely from Africa than the Antipodes	More food from Southern and West Africa	Far-off labour conditions can unravel
Outer European	S & E shores of Mediterranean	EU on the cheap	Less from EU, more from Turkey, Morocco, Israel	Geo-political uncertainties
Euro-reform	Reformed EU or EFTA	Keeping to EU standards without the subsidies	More of the same	Divisiveness of return / reform / remain politics
Nationalist	UK first	Self-reliance	Higher prices	Loss of some favourite foods
Disinterested	Food source not priority	Default values dominate	Assumption supermarket shelves fill themselves	Volatility if difficulties or shortages emerge

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What we eat has a big impact -- EAT-Lancet Commission 2019

Environmental effects per serving of food produced



Source: The Lancet Commission © FT

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Land use and human food: current to ideal (in CO2e)

source: ZCB: rising to the Climate Emergency (2019) p37 & 82

Current land use for human food



Figure 3.3: Approximate land use today (not including water courses and coastal areas). Based on data from Morton et al. (2006), Forestry Commission (2007), DEFRA (2012), NERC (2008), Barn et al. (2010) and Read et al. (2009).



Land use for food doubles if Zero Carbon Britain



Zero Carbon Britain: Rising to the Climate Emergency 17

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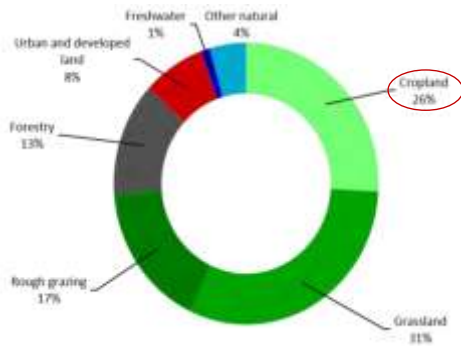
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UK Land use – an overview

UK all land use

Source: Committee on Climate Change (2018) *Land Use*

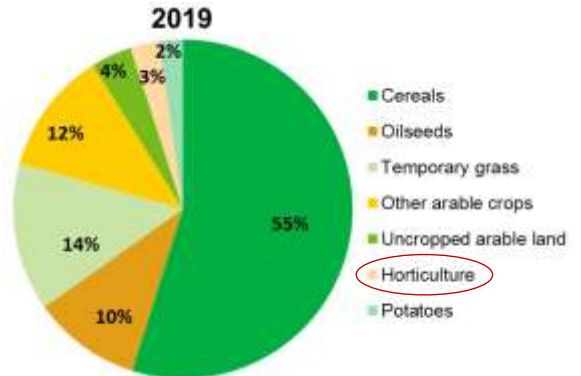
<https://www.theccc.org.uk/publication/land-use-reducing-emissions-and-preparing-for-climate-change/>



English farming land use

Source: Defra (2019) *Farming Statistics*

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841474/structure-jun19-eng-24oct19.pdf



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Land use in the UK, by crop - 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	
• Grassland		11,224,000 ha
• Rough grazing	1,195,000 ha	
• Woodland		1,016,000 ha
• Pigs		10,000 ha

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Land use for crops in UK, 2018

Defra (2019) Agriculture in UK 2018

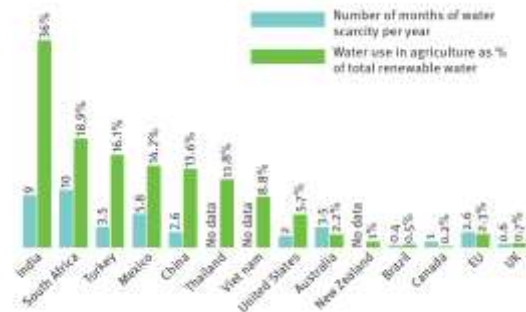
Crop	Hectares in UK	Approx % total crop ha
Wheat	1,748,000	40.9
Barley	1,138,000	26.6
Oats	171,000	4.0
Oilseed rape	583,000	13.7
Linseed	25,000	0.6
Sugar beet	110,000	2.6
Peas for dry	38,000	0.9
Field beans	155,000	2.7
Plants & flowers	12,000	0.3
Fresh vegetables	117,000	2.7
Potatoes	140,000	3.3
Fresh fruit (orchard ~24k; soft ~11k)	34,000	0.8
TOTAL	4,271,000	

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New audits: eg UK water imports in fruit & veg

source: Hess & Sutcliffe, Cranfield University, 2018

- UK imports 13.5 bn kg of fresh fruit & veg p.a.
- = 560 million m³ of freshwater p.a.
- = 211 kg/capita/year
- 74% of this is from countries with water vulnerabilities
- **increased** by 36% in 1996 – 2015



Water Stress in non-EU countries exporting food to the UK
source: Elliott & Tipper 2018

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UK state expenditure in full, 2019-20 & 2020-21

<https://www.gov.uk/government/publications/spending-round-2019-document/spending-round-2019>

Ministries	2019-20, £ bn	2020-21, £ bn
Defence	39.5	41.3
International Development	9.3	9.6
Foreign & Commonwealth	1.1	1.1
Single Intelligence	2.0	2.1
Ministry of Justice	7.6	8.1
Home Office	11.9	12.9
Education	64.0	67.8
Health & Social Care	132.3	138.9
Housing and local gov't	1.6	1.6
Local Government	46.2	49.1
Transport	3.7	4.1
Business, Energy & Industrial	2.2	2.5
Digital Cultural & Media	1.5	1.6
Environment, Food & Rural	1.9	2.0
Work and Pensions	5.6	5.8
International Trade	0.5	0.5
Revenue & Customs	3.8	3.8
HM Treasury	0.2	0.2
Cabinet Office	0.4	0.4
Scottish Government	28.3	29.4
Wales Government	14.2	14.8
Northern Ireland	10.7	11.1
Small bodies, eg FSA	1.7	1.8

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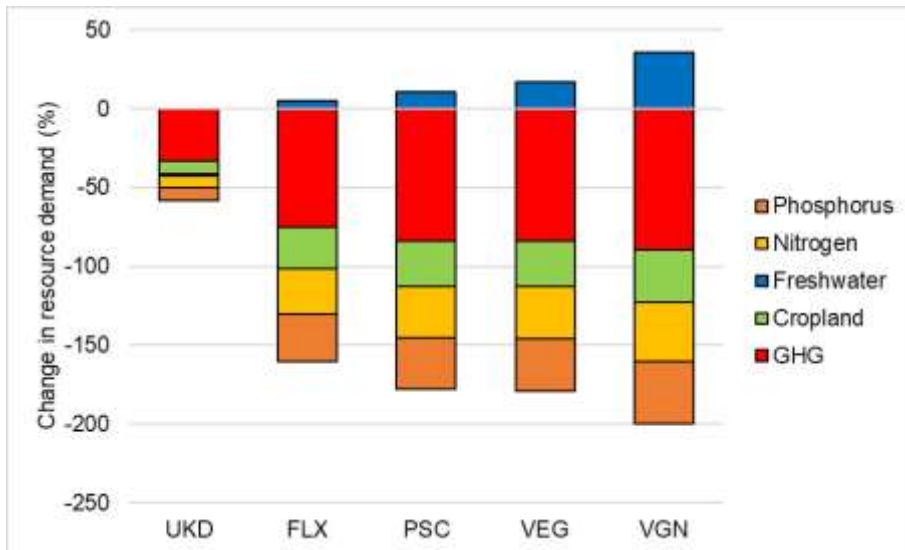
Change in Food Production / Land Use



Source: EAT-Lancet Commission report 'Food in the Anthropocene', *The Lancet*, January 2019

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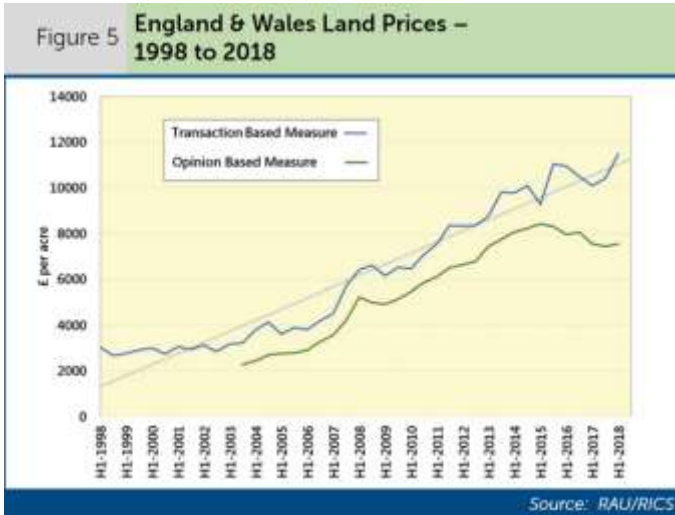
Diet change improves resource demand, % in the UK



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Meanwhile.... in reality, farm output and land values are mismatched (shaped by other values)



Land ownership England:
Guy Shrubsole (2019) estimates

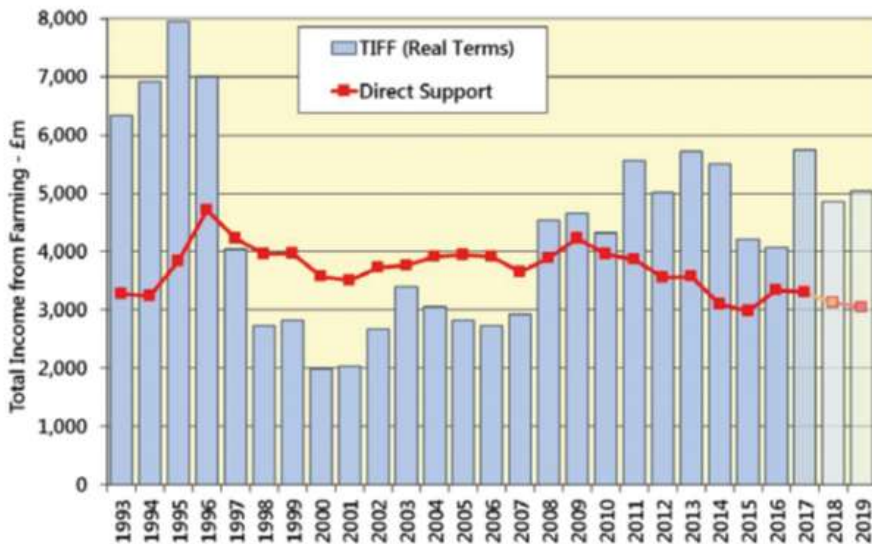
Group	% of English land owned
Aristocracy and gentry	30
Corporations	18
Oligarchs and city bankers	17
Unaccounted	17
Public sector	8.5
Home owners	5
Conservation charities	2
Crown and royal family	1.4
Church	0.5

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Farm dependency on subsidy: TIFF (Total Income from Farming), 1993-2017, plus direct support (subsidy)

source: Defra/Andersons 2019

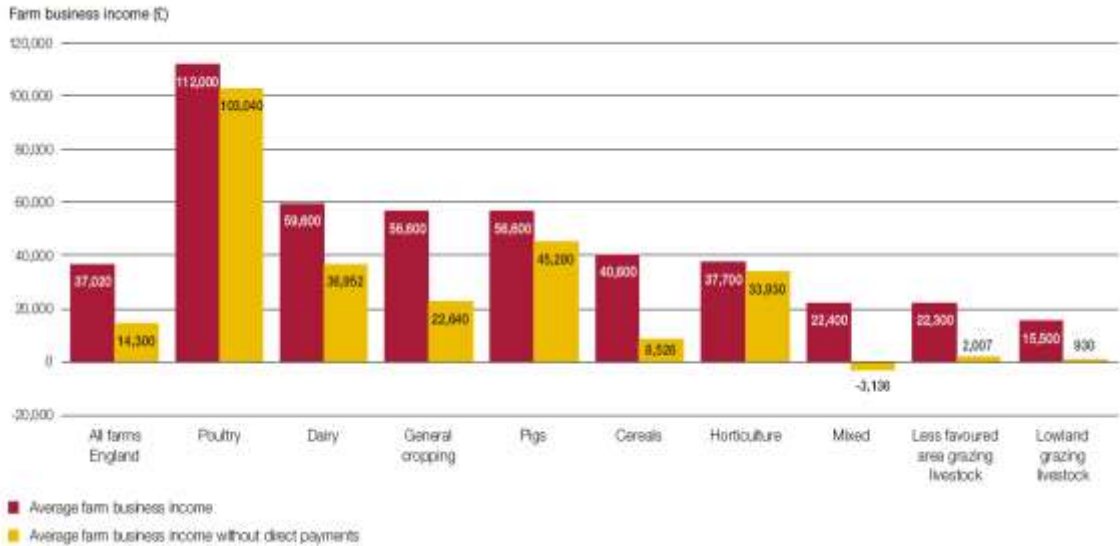


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Farm income in England 2017, with and without subsidy, by type of farm business

source: NAO 2019



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Trouble ahead: Strutt & Parker Sept 2019 anticipate drop in profits to 2027, if HMT & Tory plans remain...

Summary of effects by farm type and by level of productivity

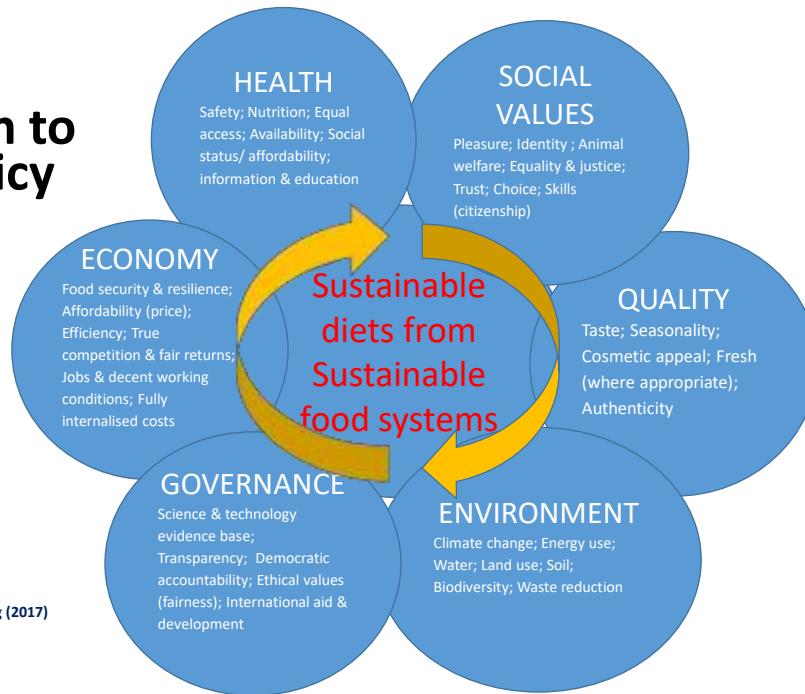
The table and chart below summarise the % change in net profits for all seven farm types and by the different levels of productivity, which shows us a number of things:

	All farms	Cereals	General cropping	LFA livestock	Lowland livestock	Mixed	Dairy
Overall average	-37%	-54%	-43%	-31%	-46%	-54%	-10%
Top 25% of farms	-6%	-15%	-11%	-14%	-10%	-19%	9%
Middle 50% of farms	-47%	-56%	-66%	-47%	-63%	-68%	-3%
Bottom 25% of farms	-49%	-40%	-58%	-26%	-22%	-26%	-63%

NB Red shading of data shows a fall in net profits of 50% or more; amber shows a fall of 25 – 50%

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A multi-criteria approach to food policy



Source: Mason P & T Lang (2017)
Sustainable Diets
Routledge

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CONCLUSIONS: change needed

- **Supply** → grow more of what we can (but sustainably)
- **Land use** → more land for trees, wilding, / less for farm animals
- **Food for health** → health to guide land use (more horticulture)
- **Sustainable dietary guidelines** → clear goals to link consumers
- **Market controls** → rebalance money flows / more to primary sectors
- **Horticulture** → skills and training (urgent need from FE)
- **Food infrastructure** → rethink what's needed for a good food system
- **Civil awareness** → revamp Resilience Forums to include food

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