



Department
for Environment
Food & Rural Affairs

Agricultural productivity overview: a Defra viewpoint

Anne Murthy



Environment
Agency



Forestry Commission

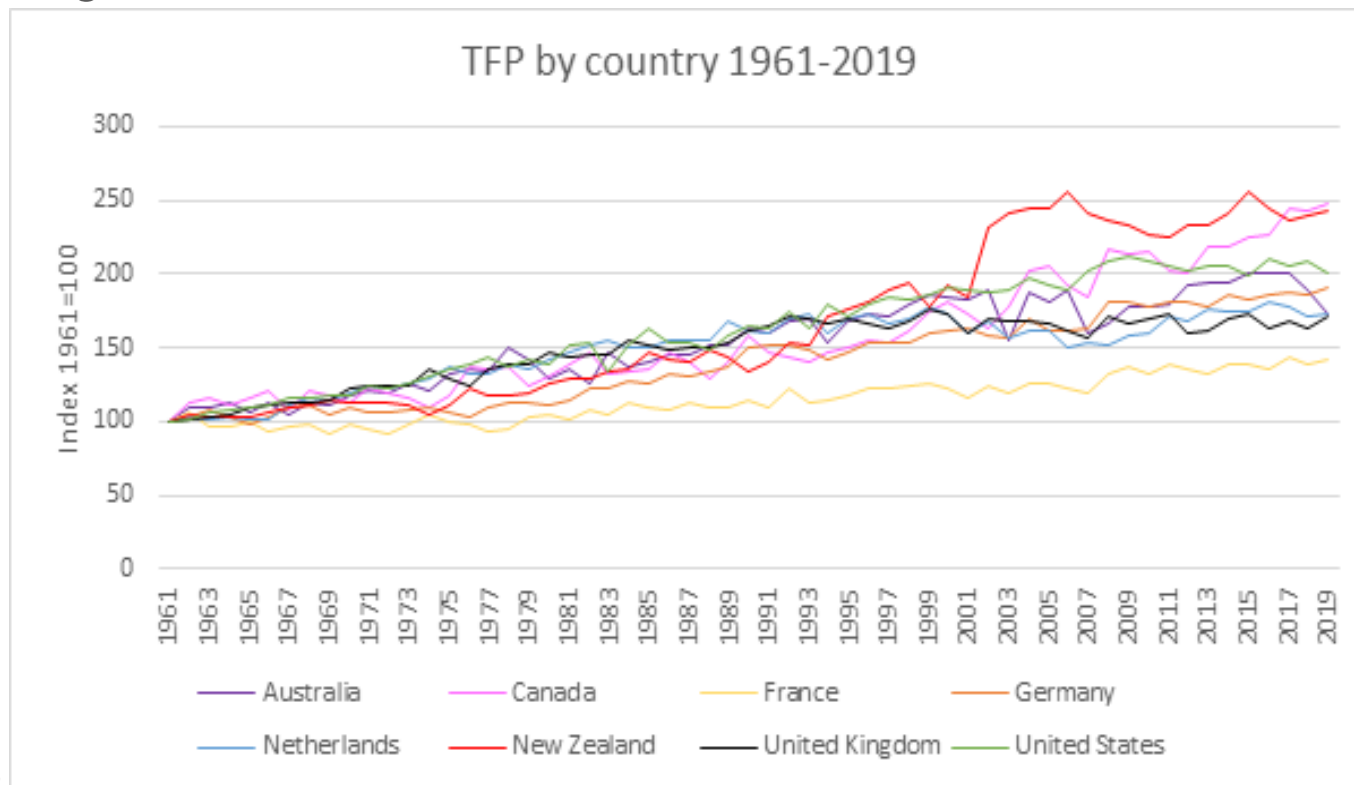


NATURAL
ENGLAND

What do we mean by productivity?

Total Factor Productivity (TFP)

- Standard index of agricultural inputs to outputs
- International comparisons
- Index = growth not actuals



Source: USDA, 2022

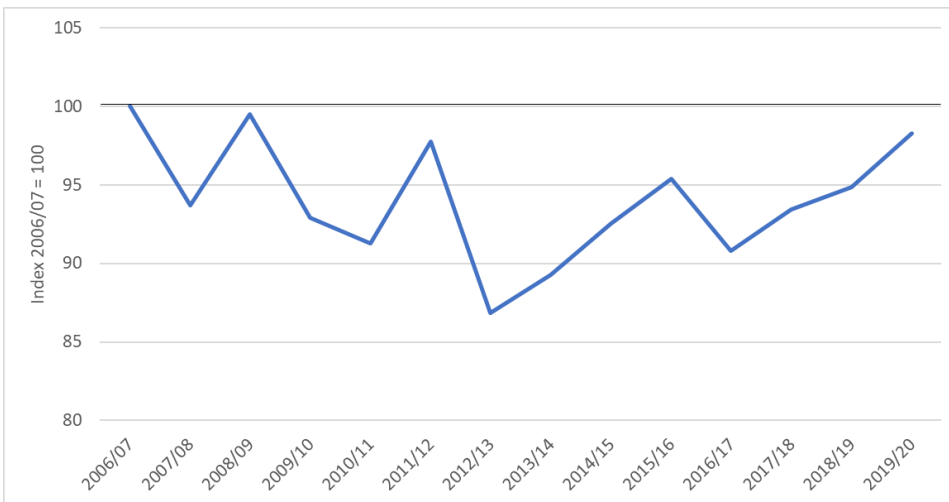
What do we mean by productivity for England?

Total Factor Productivity

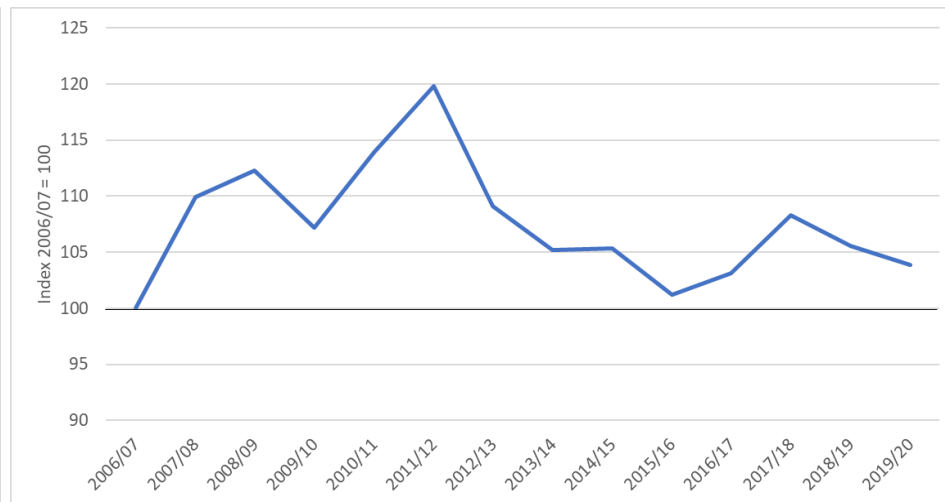
- Standard index of agricultural inputs to outputs
- England by farm type

Farm Business Productivity

- Wider measure which looks at all farm income
- Impacts all the income streams we're looking to through the transition
- Not comparable internationally



Source: Defra stats, TFP for England by farm type, 2022

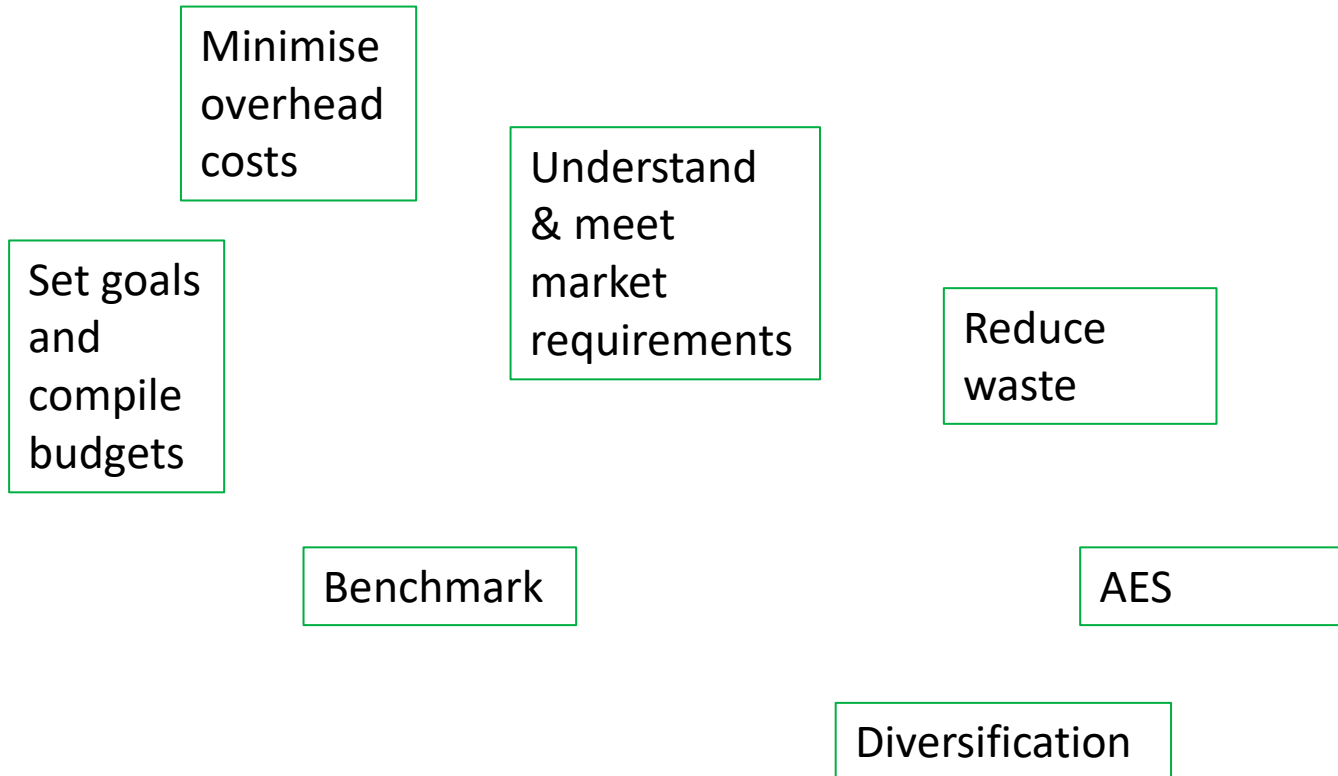


Source: Defra constructed from FBS

What channels are we expecting to boost productivity?

- Farmers currently do not always act as profit maximisers
 - Different farm types (modern businesses, custodians, 'hobby')
 - Through direct subsidy we have incentivised non-profit-maximising behaviour
- Direct Subsidy reduction should lead to...
 - Behavioural change -> production becomes more efficient as this is what we're incentivising
 - Exits -> some lower performing farm businesses leave and taken over by higher performing farm businesses but off-farm income comes into play here
 - Rents -> it is assumed the BPS has artificially increased rents so without BPS rents could fall
- According to the Andersons Centre (2018) just 5% of factors affecting farm performance are out of farmer's control
- So why cant we leave this up to the industry to sort out...BPS isn't everything

Increasing efficiency – what does that mean in practise?



No two farms are the same and Defra have a wide-ranging package of support

What are Defra doing to support farmers?

Scheme: Farming Investment Fund

Status: launched – round 1 oversubscribed

Next steps: Launch round 2 Q1 '23

Grants offering a contribution to:

- 1) bits of kit (farming Equipment & Technology Fund) to improve productivity, slurry, animal welfare and environmental outcomes
- 2) on-farm investment (farming Transformation Fund) to add value, improve productivity & for better water management

5 suppliers offering tailored learning & development to participants. Pilots will trial a variety of incubator support services as well as interaction between land and finance providers

Scheme: New Entrants Pilot

Status: launched; recruitment on-going Dec 2022, pilots run in Q1 2023

Next steps: Pilot evaluation

Scheme: The Institute for Agriculture & Horticulture

Status: launched

Next Steps: None

A one-stop shop for skills and careers support – providing tailored advice and practical tools (<https://tiah.org>)

What are Defra doing to support farmers?

Scheme: Farming Innovation Programme

Status: launched Funds 1 & 2

Next steps: roll-out new themes and Fund 3 in 2023

Grant scheme offering contributions to research and development across various partnerships and themes.

- 1) Industry-led R&D partnership – connecting groups within agriculture for R&D responsive to immediate & practical industry needs
- 2) Farming Futures – R&D in specific themes (eg automation & robotics)
- 3) Projects to Accelerate Adoption – trail of on-farm viability of new technology

Scheme: Future Farming Resilience Fund

Status: launched – final phase being delivered

Next steps: evaluation

Provides free 1-1 or 1-many support to improve farm business resilience. Supports use of accounts and production data to help benchmark & future plan the business.

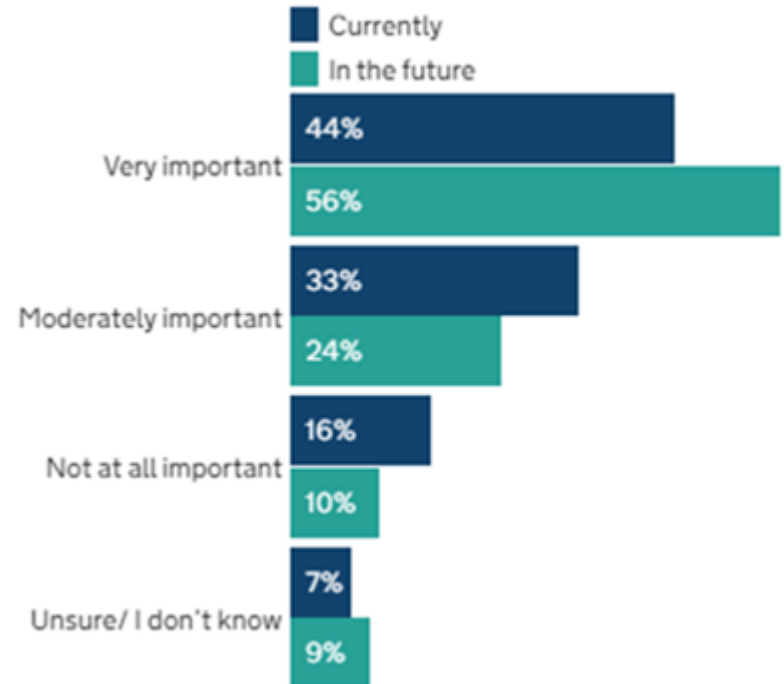
The first 2 phases have been successful with early evaluation findings of the interim phase showing:

- Nearly half of survey recipients making efficiency changes
- Around 1 in 4 survey recipients applying to existing Defra schemes
- Around 1 in 4 survey recipients applying to new Defra schemes
- Nearly a quarter of survey recipients to begin diversification

Productivity vs Environmental outcomes?

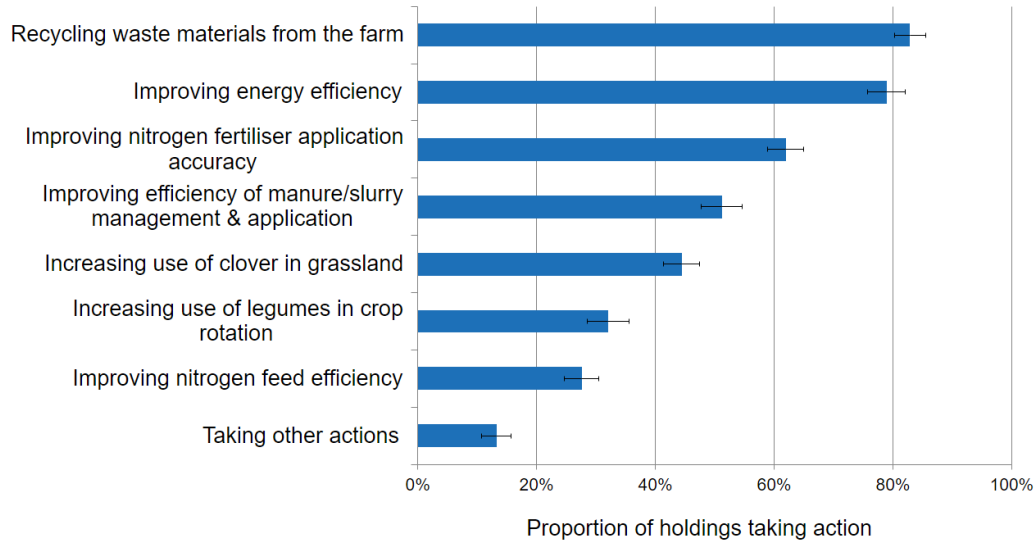
- Across the board we do not expect to see productivity increases at the sacrifice of environmental outcomes
- Each farm will have a different solution; some will opt for sustainable intensification, others will take unproductive land out of farming to perhaps free up land for environmental purposes
- Restoring and nurturing our natural capital will increase productivity in the future
- FIP – climate smart farming theme
- FIF – environmentally beneficial bits of kit
- FFRF – carbon audits

Farmers increasingly see being paid for environmental outcomes as important to their business



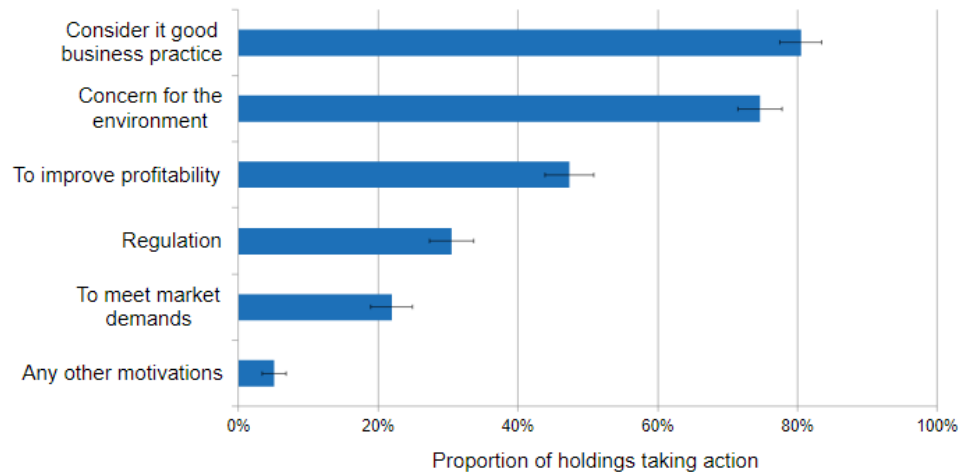
Source: Farmer opinion tracker, April 2022

Just to finish...



Actions being taken by farmers to reduce GHG emissions...

Main motivations for taking action to reduce GHG emissions...



Source: Farm Practice Survey, 2021