



Grassland science and innovation – the key to a Green Brexit?

Livelihoods: The contribution of livestock farming to fragile rural economies

Deb Roberts & Andrew Copus



The James
Hutton
Institute

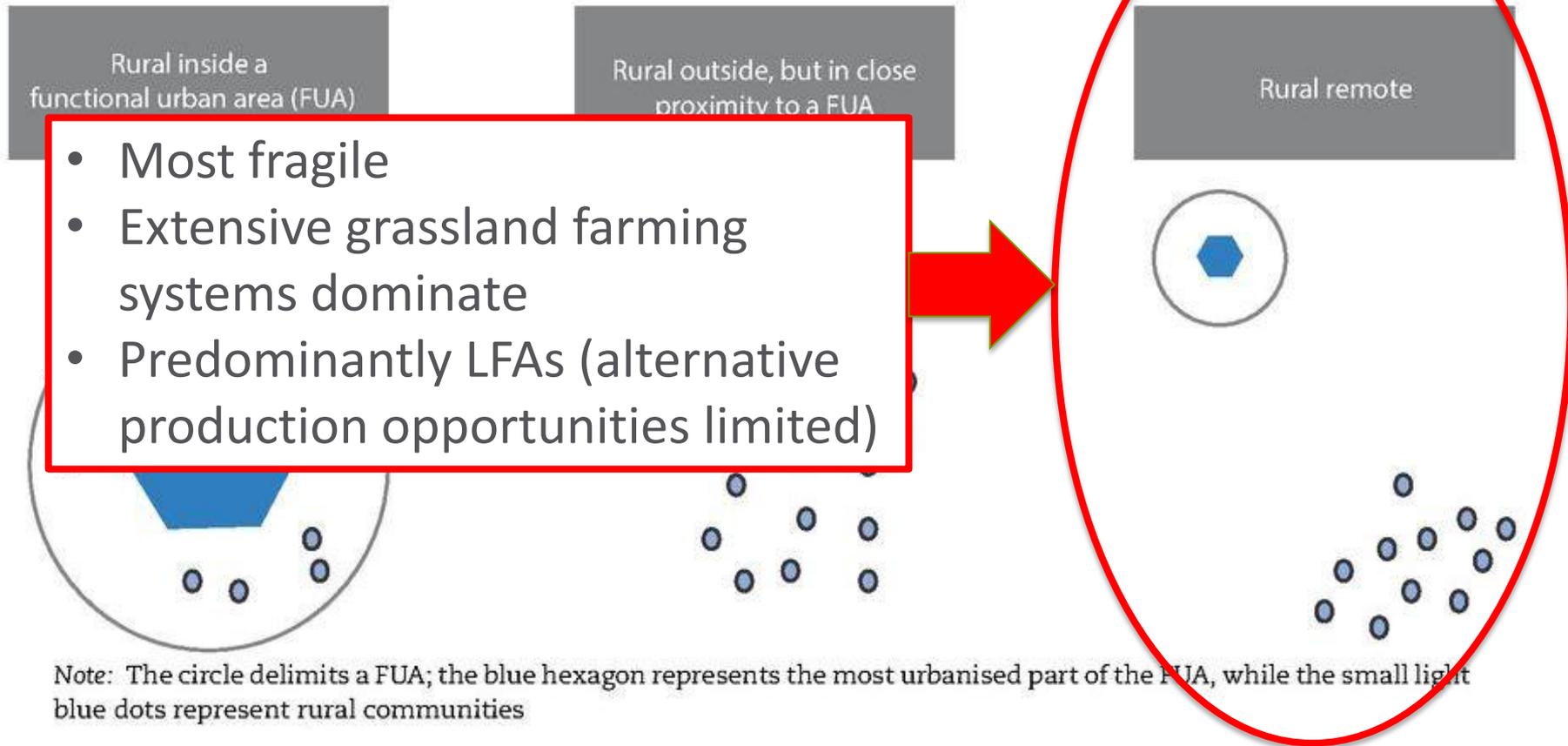
Presentation to the All Party Parliamentary Group on Science and Technology in Agriculture – 5 June, 2018, Palace of Westminster.

Outline

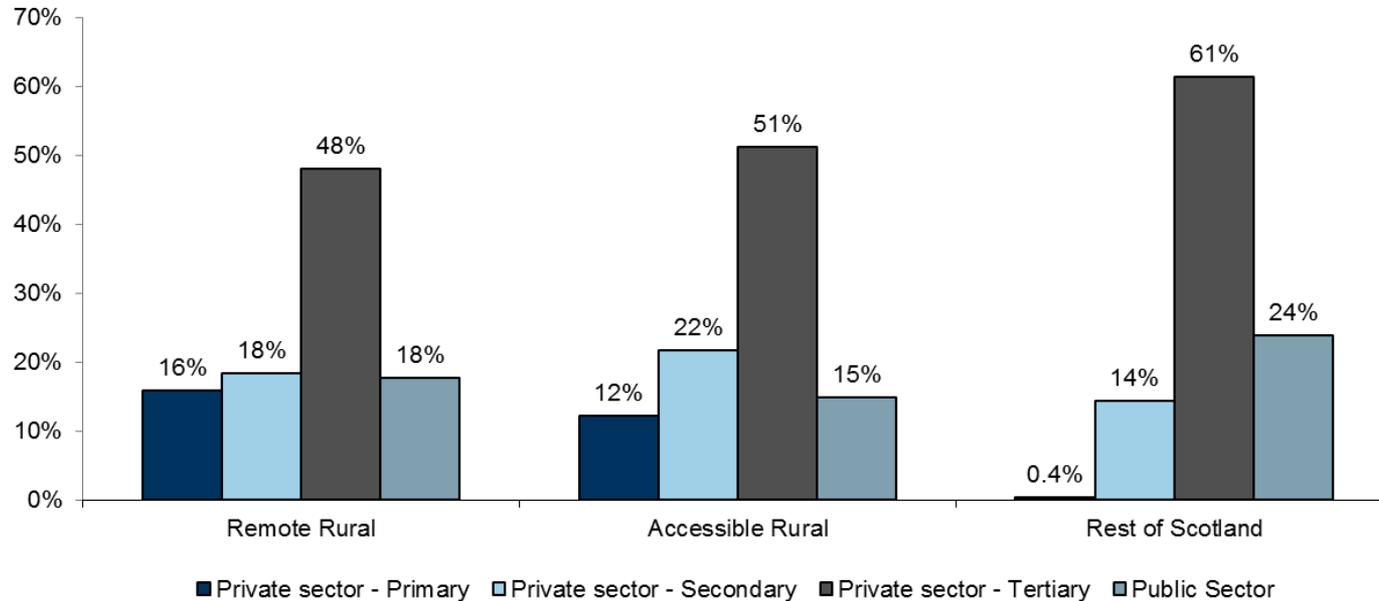
- Contribution of livestock **farming** to rural economies
- Contribution of livestock **farm households** to rural economies
- Implications of **Brexit**
 - The management of grasslands gives rise to multiple benefits which either directly or indirectly support fragile rural communities and maintains natural capital.
 - Brexit provides an opportunity to ensure livestock farming supports local economies as well as delivering other societal goals



Different types of rural regions



Contribution of livestock farming



- Agriculture is relatively more important in remote rural areas but economies dominated by service sectors.
- Growth is increasingly dependent on sectors linked to natural environment e.g. tourism, renewables (underpinned by farming)
- High reliance on transfer (“unearned”) income from other areas e.g. pensions, non-local income, investments, public sector funding, **farm subsidies** and structural funds

Contribution of livestock farming



The James
Hutton
Institute

- In addition to value of livestock production, through input purchases (upstream) and output sales (downstream), livestock farming gives rise to knock-on (“multiplier”) effects .
- Magnitude of multipliers varies by type of enterprise and locality
 - Cattle farming > dairy > sheep > arable farming
 - Very remote economies more self-contained, higher multiplier effects.
- Spatial patterns of livestock sector linkages are changing (Pangbourne and Roberts, 2015)





The James
Hutton
Institute

Livestock farming – other contributions

- Grassland management gives rise to huge range of supporting, regulating and cultural ecosystem services
 - Habitats and biodiversity
 - Climate and water regulation
 - Landscape amenities & access
- Some are not valued through the market, others underpin other sectors (e.g. grassland landscapes supports tourism) .



Dumfries & Galloway
Tourist Board



Visit Scotland:
Highlands



Orkney Tourist
Board

Contribution of livestock farm households

- Retain a symbolic importance in remote rural areas despite agriculture's declining economic significance.
- Can be guardians of a number of distinctive dialects and rural traditions
- Contribute to the population base in sparsely populated areas

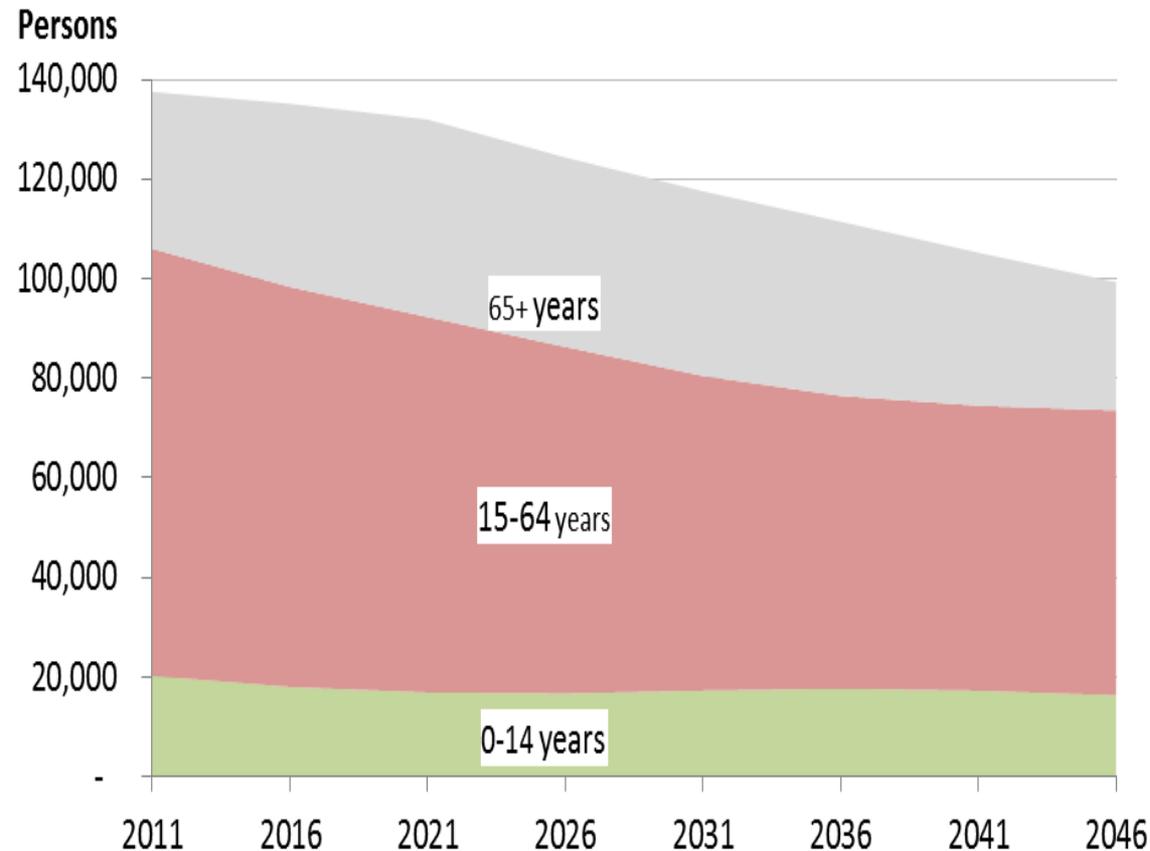


Demographic trends in remote economies



The James
Hutton
Institute

- Critical points in population levels, below which economies may no longer be viable.



Example:

Sparsely populated areas,
Scotland. By 2046:

Population -25%

Working Age -30%

(Copus and Hopkins, 2018)

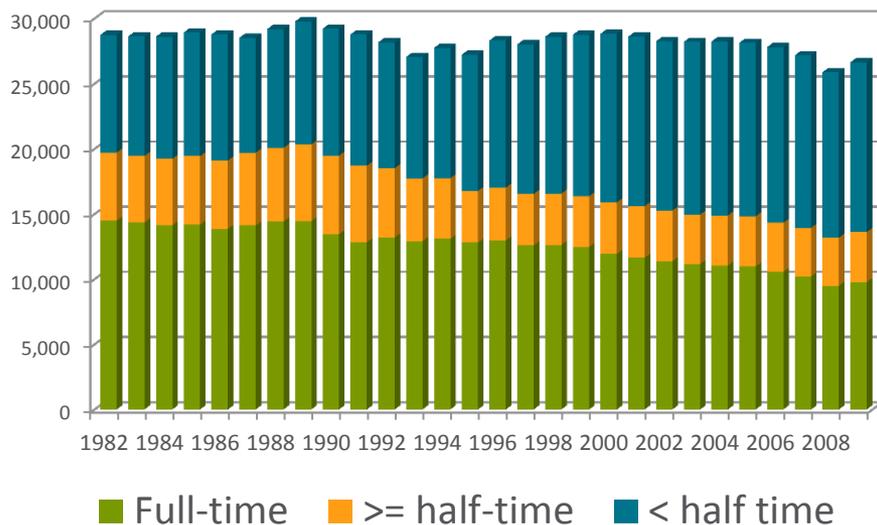


Contribution of livestock farm households



The James
Hutton
Institute

- On farm diversification (eg. farm tourism, food processing) provides a means of
 - “internalising the positive externalities” from farming activity
 - re-linking farmers with each other and with local economy (local farmer markets, local food networks, renewables)
- Off farm work provides means of supplementing farm household income and maintaining livestock enterprises



Transition towards part-time farming → skills & social capital remaining in rural areas



Summary/Policy implications

- Management of grasslands gives rise to multiple ecosystem services, of which livestock production is just one.
- Changes in farm policy may lead to
 - additional pressures on (linked) upstream and downstream sectors
 - a reduction in environmental services
 - pressures on the sustainability of other rural sectors which rely on natural capital (eg tourism)
 - a fall in the number of farm households which could threaten the viability and cultural identity of remote rural areas.



Summary/Policy implications

- Alternative land uses and/or types of land managers could substitute but their contribution to wider economic, social and cultural goals will differ.
- Brexit provides an opportunity to ensure support to livestock farming and livestock farmers continues to support the fragile local economies in which they are based.

Thank you

Email: Deb.Roberts@Hutton.ac.uk

Twitter: [@aDebRoberts](https://twitter.com/aDebRoberts)