WHATS GOING DOWN IN THE UPLANDS?

Sustaining the future of upland areas

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There are ***numerous reports about what is wrong*** with uplands –

A composite of:
- A limiting physical environment
- Economic structure focused to enterprises with a *tangible* price tag
- Weak demographic structure

Instead, we need to ***champion uplands***, demonstrating how they can be more resilient and adaptive to unpredictable shocks, seasonal risks and long term trends

Long term trends to address include :

- peak oil, climate change and food security
- changes in the EU

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PEAK OIL

Consensus suggests 2025 to 2030 will be the peak of production, despite of the introduction of *Fracking*.

Impacts

- ↑ electricity prices
- ↑ price of petro chemical derived input Eg red diesel 18p/litre 2003, 56.5/litre 2008
- LFA livestock farm costs ↑ by £1.17/ha/annum, dairy by £4.18/ha (Defra, 2005)

Possible Trends

- ↓ fossil fuel dependency
  - more biofuels
  - alternative electricity supplies
- Become more extensive in our operations
- ↑ silaging area ? - no more concentrates!

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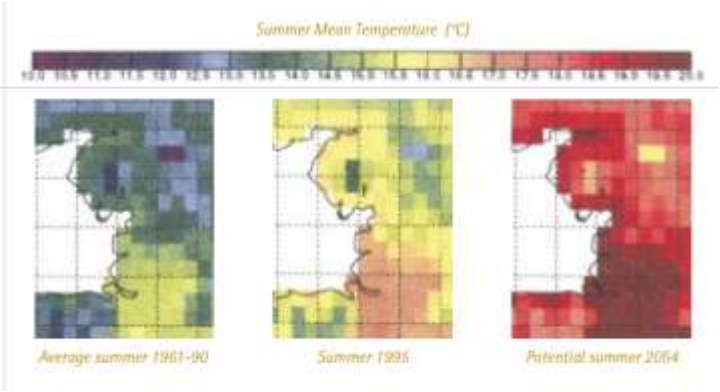
CLIMATE CHANGE

By 2050 in the NW:

- Average temperatures by ↑ 0.8 to 2^{o}C
- Winter rain ↑ 6 and 14%
- Summer rain ↓ by 10%
- Sea Level ↑ 12 and 67cm



Effects:

Loss of species eg. Vendace (UK's rarest fish)

↑ moorland fires

↑ loss of peat, so less carbon storage

Greater agricultural crop possibilities

↑ extreme weather events

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FOOD SECURITY

Food Security – all people have access to sufficient, safe, nutritious food to maintain a healthy active life (WHO, 2010)

Trends

We are beset on multiple fronts:

- By 2050 global population will be 9 billion
- We will need 70% more food than produced now
- in UK we only 60% self-sufficient
- Over-emphasis on meat & dairy products dominated by grain fed stock
- Climate change is introducing more pests/ diseases
- Collapse of pollinators by 10 to 15% over last two years alone

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CHANGES IN THE EU

ISSUES

- *CAP Reform 2013* trends suggest more focus on agri-environment and less on rural development – a dangerous road to go down as RDevt allows for more resilience of an upland area

- *EU enlargement* – more eastern European members with far poorer agricultural infrastructure and primary sector economy

Country	% Agr of GDP	Aver. Farm size	% of state mountain
Albania	22.6	1.1	81
UK	0.9	76.9	17

- *Re definition of LFA* – reduction of land classified under this (DA to only SDA)

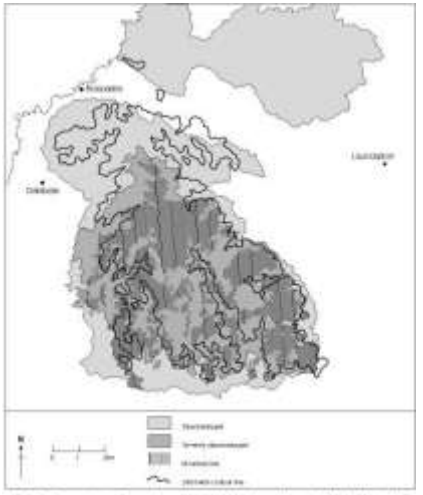

Fig 2.7 A comparison between Less Favoured Areas boundary and Moorland Line for Bodmin Moor, SW England

CURRENT SOLUTIONS

Subsidies to farmers and other land managers

Issue: lack of profit, no capital to invest in new developments

Grants

Issue: most are based on profit foregone

Some of HLS allows for capital generation eg barn restoration

Still no real capital generated

Investment

- On farm eg a cattle crush
- Diversification
- Development initiatives (creation of networks, innovations, new products)

Issue: some capital can be generated, but often rely on matched funding grants to promote the development

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APPROPRIATE SOLUTIONS

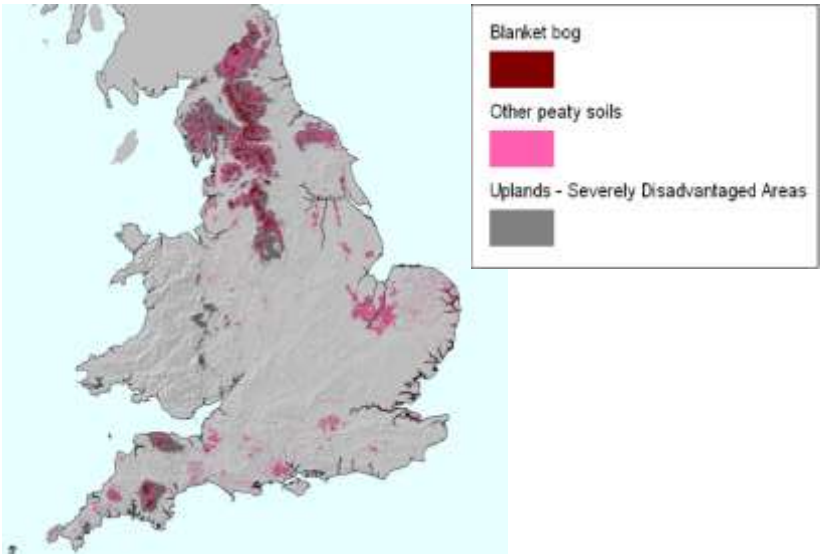
The Essence

We need to develop better *value* for that which land managers in uplands produce

Value – money paid *beyond* the work done, to reward for the product and its multipliers (all outcomes)

Examples:

- Niche products with comparative advantage
- Water quality
- Carbon stores, sinks and sequestration
- Small scale energy production
- Flood alleviation
- Biodiversity management
- Access to the countryside



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OPTIONS

1. *Better value for land managers' current produce* eg. *Cumbria Fair & Local*

2. *Decrease input costs:*
   - alternative energy production
   - adopt more scientific methods of management
   - bulk buy
   - sharing capital investment
   - peripatetic units eg biofuel production

3. *Increase output value:*
   - Producing qualities consumers want
   - Collaborative selling

4. *Valuing land management* :
   - full farm/estate asset appraisals
   - *by-products*
   - paying for ecosystem services *

5. *Developing resilience:*
   - methods of farming/ estate management
   - Core enterprise choice eg novel crops/ stock

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VALUING OUR ECOSYSTEMS

Ecosystem Services – these are the range of goods and services we obtain from ecosystems in a sustainable way.

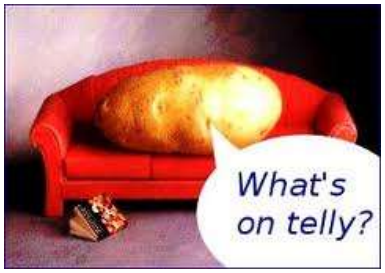
Provisioning

Eg Added value Food

Regulatory

Flood risk prevention

Cultural



Recreation

Supporting

Soil Stabilisation

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CASE STUDIES

CLASSIC: SCAMP 2 – Catchment management

Collaboration between United Utilities & commoners

Pay for planting of trees around Haweswater – income (but quite low)

Effect: slows soil erosion, increases water quality and carbon storage

COMPLEX: Flood Alleviation around Cockermouth

Contributory factor - lack of dredging in upland rivers

1) pay land manager to dredge - income
2) allow resale of dredged gravel – income
3) pay land managers for result of ↓ flooding downstream – income

Effect: increased capital for investment

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CONCLUSIONS

- We know what the issues in uplands are, let's get on and ***champion uplands***
- Use this to address the challenges ahead
- Make uplands more resilient or adaptive to change acknowledging each one is unique and has different attributes to offer
- Put a fair financial price on all the *outcomes* of management
- Ensure upland managers are supported skills - wise

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WHERE TO GET MORE INFORMATION

Post 2013 project site: www.cumbriapost2013.org.uk

RPDE programme sites: www.fellsanddales.org.uk and www.sbeleader.org.uk

Federation of Cumbria Commoners: www.cumbriacommoners.org.uk

Natural England: www.naturalengland.org.uk

Soil Association: www.soilassociation.org

Mansfield L (2011) '*Upland Agriculture & the Environment*' Badger Press: Bowness

Bonn A *et al* (2009) '*Drivers of Environmental Change in Uplands*.' Routledge: London

Defra: www.defra.gov.uk

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