Nature's Bounty



Thesis on Hill Farming

Note 01 April 2019

1. Vision for hill farming:

'The uplands will be a natural balance between food, farming, nature and the communities that are settled there'.

- 2. So, the uplands will naturally provide the:
 - Foundation for people & communities to live & work
 - High quality beef & lamb, for people to eat
 - Outstanding landscape & nature for people to step off the world and revive
 - Natural services that are essential to the well-being of society: clean water; carbon storage etc
- 3. Hill farming is driven by the quality and quantity of grass available to the farmer. This situation is affected principally by:
 - Geology, which is the pre-determinant factor in grass quality
 - Latitude, which determines sunshine
 - Elevation, which determines temperatures
 - Precipitation, which is an essential pre-requisite
- 4. Whilst much has been done to make farmland more productive over the centuries (through capital investment to 'improve' the land through, for example, de-forestation or drainage), it has had little impact on the fundamental viability of hill farming.
- 5. Since 1945, one-off capital investment has largely been replaced by annual programmes of investment to try to correct the fundamental natural deficiencies of the uplands, such as poor soils, latitude and elevation. This includes the use of artificial fertilisers or purchase of proprietary feed-stocks. This has enabled hill farmers to increase the number of livestock to levels well above the natural carrying capacity of the land, and to generate significant additional income. It has not, however, enabled hill farmers to generate any additional profit.
- 6. Our direct experience of farming at Nethergill Farm and other hill farms in Wharfedale, Malhamdale and Nidderdale, and Chris Clarks' detailed business analysis work with over 25 hill farms so far in 2018, has prompted this thesis for hill farming:
 - "If there isn't enough natural grass, no amount of corrective economic action can make the farming any more profitable."
- 7. This has significant implications for current stocking rates, and it undermines (totally) the economies-of-scale theory that prevails in the rest of the industrial world. The world of hill farming is characterised by 'non-linear variable costs'. That means that:
 - "Beyond the maximum sustainable stocking rates on a farm, its intrinsic profitability reverses and so, as many farms attempt to produce additional revenue, so more money is lost".

Hence, the more stock that a farm attempts to produce, the more the actual profit decreases – to a point, which many hill farmers have now reached without realising it, that the core farm business is actually losing money.

8. Contrary to the received wisdom and counter-intuitively, the economic reality is that reducing stocking rates (to the 'sweet-spot', naturally sustainable level) produces the maximum profit (i.e. the maximum positive differential between income and costs). Not only does this improve farm business viability, it by default produces more resilient rural communities. It also naturally starts to generate significant environmental improvements; improvements that, with the current DEFRA thinking, would appear to be eligible for the highest level of any future 'payment for public benefits' policy currently being promoted by government.

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