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INTEGRATING AGRICULTURAL & ENVIRONMENTAL MANAGEMENT POLICY: A UK PERSPECTIVE

Author:

Professor E. John Wibberley, PhD, FRAgS,

University of Reading & Royal Agricultural University, Cirencester, UK

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Corresponding Author:

Professor E. John Wibberley
Springvale
Orchard Close
Shaldon
Devon
TQ14 0HF
United Kingdom
Tel: +44(0)1626 873159
E-mail: ejwibberley@btinternet.com

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INTEGRATING AGRICULTURAL & ENVIRONMENTAL MANAGEMENT POLICY: A UK PERSPECTIVE

Abstract

During a period when agricultural management signals and imperatives are being reviewed internationally, this paper explores the balance between production-linked and environmental care aspects. It reviews the case of the UK, especially England with particular reference to Exmoor in the south-west. However, it seeks to elicit some principles that may seem to apply internationally. After a review of policy signals and reactions over the past half-century or so in the UK, it outlines the September 2018 Agriculture Bill, discusses the changes it may herald, and the issues that need to be incorporated in the final Environmental Land Management System (ELMS) being debated in the UK Parliament at the time of writing. These include a global perspective on farming policies, agricultural innovations, energy security and care of the farmed landscape. It is argued that an overarching vision of Ecosystem Security includes people and it is proposed that food production and productivity (measured in terms of the rate of output per unit of input) must be included within the 'envelope' of ecosystem services and in the valuation of natural capital. Both necessary agricultural productivity and responsible environmental management are mutually inclusive and require policies that integrate them as simply as is possible.

Keywords: productivity; environmental management; policies; natural capital; farmers

Introduction

The quest for increasing land productivity (rate of output per unit of input) was underpinned in the UK by the encouragements of the 1947 Agriculture Act. However, productivity came to be measured by tonnes or litres of agricultural product per person employed. Mechanisation improved that ratio no end but did not consider the downward

energy-efficiency trends accompanying input-fuelled advancing yields, nor the consequences of disconnecting people from the land. By the 1960s, the success of this was beginning to call into question its environmental stewardship impacts. Rachel Carson's 1963 book *Silent Spring* sounded the alarm internationally over the escalation of agrochemical and biocide usage, while Mellanby (1967) provided some of the increasing evidence for pollution from pesticides. Already, others had sounded the trumpet for more environmentally friendly approaches to agricultural management that recognise the fundamental importance of soil biology from Balfour (1943), to Russell (1957) and Stapledon (1964). In a quest for compromise between the competing – though necessarily ultimately collaborating – aspects of productivity and environmental care, a seminal conference was convened by the Royal Society for the Protection of Birds (Barber, 1970). Attendance at that conference confirmed the present writer's quest for balance - as for instance in Wibberley (1989) where 'husbandry' replaces mere 'production'. Many British farmers have, like this writer, been influenced not only by the sense that God cares for land (Psalm 65:9-13) but also by adages:-

'*Live as though you will die tomorrow; farm as though you will farm forever*' and the balancing:

Swift's (1726) quote: '*whoever could make two ears of corn or two blades of grass to grow upon a spot of ground where only one grew before, would deserve better of mankind and do more essential service to his country than the whole race of politicians put together*.' This latter imperative has all too often led to production and productivity trumping environmental care.

In the sphere of economics, seminal steps have occurred in recent decades from Schumacher (1974) who prioritised people, to Pearce *et al* (1989) who appealed for environmental accounting to monitor the natural resource base for productivity. By the 1990s, the role of transnational corporations in the rising tension between productivity and environmental impacts was registered (Korten, 1995) and in the new millennium, the downsides of globalisation were alerted (Stiglitz, 2002). Rising up the agenda politically in the UK is the state of the natural world (Defra, 2011) and realisation that nature services humanity in unrecognised and undervalued ways (Juniper, 2013) with the concept of natural capital to put economic value on the planet (Helm, 2015). The concept of natural capital should include its overarching context of ecosystem security in which human skills are valued and security of their daily bread included within ecosystem services (Wibberley, 2013). UK Farmers are working together in the nature friendly farming network

(www.nffn.org.uk). The National Trust in England, Wales, and Northern Ireland (the world's largest conservation charity with some 5.2M Members) is working hard with its 1800 farming tenants to deliver landscape-scale environmental management alongside profitable farming (www.nationaltrust.org.uk). Meanwhile, on an English estate of some 1400 hectares in West Sussex, bold decisions to pursue wilding were taken in 2000 and outcomes are brilliantly documented (Tree, 2018) flagging up useful debate and practical experience of delivering meat from that landscape alongside much-enriched nature conservation.

In the context of all this, a new Policy from 2019 in the UK from Defra (Department for Environment, Food & Rural Affairs) was initiated in autumn 2018 after wide consultation. Legislation to deliver a cleaner and healthier environment for future generations came after some 45 years under EU rules (Agriculture Bill, UK Parliament, 12th September, 2018). This set out how farmers and land managers would in future be paid for 'public goods', such as better air and water quality, improved soil health, higher animal welfare standards, public access to the countryside and measures to reduce flooding. It replaced the subsidy system of Direct Payments to farmers based on the total amount of land farmed. Those payments have been skewed in favour of the largest landowners but not linked to any specific public benefits. The top 10% of recipients have received almost 50% of total payments, while the bottom 20% received just 2%. Accordingly, the expected reductions are tabulated below:-

Annual Direct Payment	**% Payment cut in 2021**
Up to £30,000	5%
£30,000 - 50,000	10%
£50,000 - 150,000	20%
£150,000 or more	25%

From 2019, via this Environmental Land Management System (ELMS), the UK government has pledged to work together with farmers to design, develop and trial this new approach. Under the new system, farmers and land managers who provide the greatest environmental benefits will secure the largest rewards, laying the foundations for a 'Green Brexit' after the UK leaves the European Union (EU) in March 2019. The Bill will also be underpinned by measures to increase productivity and invest in research and development (R&D). Farmer collaboration will be encouraged towards improved soil health and sustainable livestock farming, combining profitability with reduced environmental 'footprint'. To enable farm

business innovation and adjustment to the new scheme while encouraging young entrants, there will be a 7-year transition period away from the EU Common Agricultural Policy (CAP) – which has cost over half the EU budget and is politically unsustainable anyway.

The 2018 UK Agriculture Bill specifies possible financial assistance to farmers when:-

* Managing land or water in a way that protects or improves the environment;
* Supporting public access, enjoyment; understanding of countryside, farmland, woodland;
* Managing land or water to maintain, restore or enhance cultural or natural heritage;
* Mitigating or adapting to climate change;
* Preventing, reducing or protecting from environmental hazards;
* Protecting or improving the health or welfare of livestock;
* Protecting or improving the health of plants.

Both the CLA (UK Country Land & Business Association) and NFU (National Farmers Union) expect the new Environmental Land Management System (ELMS) to open for applications from 2021 – 2025, depending on how well the trials and pilot testing of the scheme go. Until ELMS is fully up and running, Countryside Stewardship will continue and Higher Level conservation agreements may be extended as required. It is likely that integration of trees into farming systems will be better encouraged than hitherto (Wibberley, 2014). There will be a support scheme to build farm capability to manage risk, improve productivity, support new entrants to get into farming and deliver public goods but this funding will be time-limited (probably to 2021 – 2027). There will be funding for farmer-led research. A ‘higher animal welfare standard’ is to be be defined in 2020 but it is unclear what it will cover. Payments will be ‘delinked’ from the requirement to farm the land, to enable recipients to invest, diversify or retire. There should be an option to take payments as a lump sum. There is no indication of just how the overall support budget for farming will change during the transition period. It is currently around £3.2bn per annum for Direct Payments and rural development spending.

It is unclear on what basis DEFRA would like to set the overall support budget. The most rational basis might be to agree targets for the environmental outcomes desired from the new policy related to public goods and climate change, then work out how

much it will cost to deliver those outcomes. The Bill does not mention future policy associated with agricultural workers and trade policy, nor whether UK standards for food production will be maintained, although a pilot overseas workers scheme has been launched and the government has repeatedly said that food standards will not be reduced for both UK production or imported food. Given that the gist of WTO policy is 'non-discrimination against imports', unfiltered exposure to cheap and substandard agricultural imports would jeopardise not only the September 2018 UK Agriculture Bill's worthy environmental aspirations but also the fabric of UK farming livelihoods to deliver them. It is vital that this fundamental contradiction is recognised and its mitigation made central to negotiations of the UK's final trade deals, and indeed in moderating WTO policy internationally (Wibberley, 2011). The dominance of multinational corporations in the Food Industry means that proper governance is needed internationally to ensure that policies do not crush the very farming communities who produce food and care for the natural capital upon which it depends - which includes skilled rural people.

Meanwhile, before ELMS applies in the UK, it is understood that there have been some 101 Pilot Scheme bids to Defra for support, one of which is *Exmoor's Ambition* (Deane, 2018). From the treasured 692 km² (267 square miles) that has formed the Exmoor National Park since 1954, the need for integration of agriculture and environmental management should be self-evident. The Exmoor Society, founded in 1958, continues to recognise this and to advocate for viable farming not only for landscape care but also for rural livelihoods and to sustain our valued cultural heritage. Exmoor Farming is precarious (Wibberley & Turner, 2009; Dwyer *et al* 2015; Howe & Wibberley, 2017). In response to the important emphasis on natural capital (Helm, 2015) and the UK government's espousal of it, The Exmoor Society commissioned work towards a register of Exmoor's natural capital (Deane & Walker, 2018). Among other options, the Exmoor Consultative & Parish Forum provides regular opportunities for community engagement, and the Exmoor Hill Farming Network stands ready to deliver (www.exmoorhillfarmingnetwork.org.uk; Knight & Wibberley, 2017).

The case has to be made to both policymakers and the wider public for policies and practices that favour such integral management with viable farm livelihoods at their heart. As the wise Women's Institute poster of some twenty years back said '*Farming is Everyone's business*.' Farming is an integral part of sound environmental management. For everyone, that integrated ecosystem in which farming is central must provide a

comprehensive ecosystem security which consists of: water security + food security + energy security + livelihood security + geopolitical security. In other words, ecosystem security must take account of all factors relevant to life on earth with agriculture having a crucial role. Thus food production is an essential ecosystem service to be included within that comprehensive portfolio.

Global Perspective

In a world of some 7.7 billion in 2019, still one person in eight is hungry. There are some 500 million farming families worldwide still maintaining the crucial linkage between family and farm that has sustained life on earth for millennia. As the finite nature of unmanaged environmental resources becomes clearer, farming's central role should be more obvious to all. Therefore these are hopeful times for farming when the UK and each country's agriculture must again become central in:-

- Global ecosystem security policy, with more food sovereignty recovered from the EU & WTO;
- Biodiversity and landscape conservation to care at scale for the countryside, integrating trees;
- Achieving sustainable rural livelihoods within relational, well-connected rural communities.

People are integral to global environmental management and Civil Society needs to be mobilised and led accordingly.

Farming Policies

An enabling, simple and understanding governance framework is needed both within the UK and in taking international leadership with Defra alongside DfID (UK Department for International Development) in raising agriculture's worldwide profile. International issues require concerted leadership notably for climate change mitigation and adaptation, and for soil and ocean care.

Further encouragement of food chain linkages is merited from 'land to mouth' in all countries. Whole systems approaches need analysis and monitoring for environmental impacts – both negative and positive.

Relationships between farmers and the UK government need to be revived more.

Better TB control is vital in this, as are initiatives to catalyse farmer networks (Rose Regeneration, 2013) and to strengthen farmer sovereignty in decision-making and voluntary collaboration for resilience using natural capital. Natural capital includes not only the natural physical and biological resources but especially also people and their skills and entrepreneurship (as encouraged by the Exmoor Society's Pinnacle Award). Good practice in environmental management is only deliverable through positive relationships with farmers and local people.

Reintroduction of regional advisory panels or *fora* of farmers and objective rural practitioners would help to harness the pool of experience, professionalism and goodwill for UK agricultural progress. Engaging with over-arching experience and wisdom of rural communities is vital, with specialisms alongside to inform this practical core.

Agricultural Innovations

Farmer-generated innovations have always been crucial to practical agricultural progress. Great caution needs to be exercised regarding GM technology – and indeed all 'silver bullets' backed by any over-ardent vested interests. Worldwide experience suggests that farmers are the best judges of appropriate agricultural innovations. A principal issue with GM is its potential to erode farmers' control over their natural resources, including timely availability of seeds and intergenerational selection from a wide gene pool of crops and livestock breeds. There is such a precious thing as farmer managerial sovereignty: farmers retaining maximum feasible control over their adoption of innovations and decision-making about key matters such as cultivations and sowing of crops (Nyangweso & Wibberley, 2019). Other small businesses may well concur with this sovereignty aspiration. Research on GM needs to be independently and not commercially funded. The widespread USA experience with *Roundup-Ready* soya beans and maize crops has raised salutary questions of rumen microbiological interference, food chain and ultimately human health issues through over-use of the albeit intrinsically low-mammalian-toxicity glyphosate herbicide. Other improved technologies within agro-ecologically mixed frameworks offer much greater scope for seamless adoption, for example use of gene markers, composite crosses, precision digital aids in both crop and livestock husbandry, low ground-pressure tyres, less oil-dependent farming, conservation agriculture (more adopted globally than in the UK) and encouragement of genuinely pasture-fed livestock systems (www.pastureforlife.org). Existing agro-ecological

approaches are sustainable. Technological innovations need objective, precautionary research.

Energy Security

Energy efficiency needs to become the accepted baseline technical criterion for comparing alternative agricultural systems for productivity (measured in terms of the rate of output per unit of input) and in encouraging and evaluating integrated rural development and resilience. Energy efficiency on a planetary scale needs analysis and monitoring, with best practice guidelines. Renewable energy sources – notably micro-hydro and solar panels on farm buildings – need an enabling planning environment. However, it is necessary to beware biofuel crops, intrusively sited wind turbines, and solar-panelled arable fields when reasonably priced food is increasingly important worldwide. Renewable energy that conflicts with priority land uses needs cataloguing, research, strategic appraisal and management.

Farmed Landscape Care

Special schemes for family-worked farms and territorial intergenerational succession should be encouraged, including using revised national planning laws that unduly restrict housing retired farmers on their own farms. Cultural heritage is a vital part of ecosystem services and in maintaining environmental integrity for future generations. Succession planning is a key issue assisted in the UK by FCN (Farming Community Network; www.fcn.org.uk; Jones *et al*, 2015).

Upland support, such as carefully proposed by *Exmoor's Ambition* needs to be retained, simplified and improved. It is for the public good of future generations that we should conserve family farms and coastal/marine communities retaining those people 'there to care' versus their displacement costs – both financial and social. Modulation using satellite-maps should be explored, based on real land area to take account of the greater costs and difficulties of farming uplands and steep slopes.

Conclusions

The UK needs to assume a clear leadership role both in reform of WTO trading rules and *versus* land grabbing so that genuine, private enterprise of smaller farms and rural micro-businesses is not ruined internationally. Fairer International Agricultural Trading (FIAT) is required to counter adverse environmental and geopolitical impacts of land grabbing and food commoditisation (Wibberley, 2011). Agricultural productivity and responsible environmental management are mutually inclusive and require policies that integrate them as simply as is possible.

The UK needs to lead in improving sustainability of global farming practices and farm livelihoods, rewarding farmers for comprehensive ecosystem security: food, timber plus clean water, carbon capture (soil nitrogen), and other income streams from therapeutic, recreational/touristic and heritage/cultural values of land.

Ecosystem security needs to be embraced to become the template for the over-arching environmental management vision. It is illogical to separate food security and home food production from its legitimate practical place *within* the overall concept of ecosystem security for ultimate public good. England's Exmoor is in a position to provide a constructive lead in these matters, with its Hill Farming Network (EHFN) including its various farmer groups, supportive National Park Authority team and keen advocacy through the Exmoor Society and others.

References & Further Reading

Balfour, E.B. (1943) *The Living Soil*. (Faber & Faber, London, 248 pp.)
Barber, D. – ed.(1970) *Farming & Wildlife: a study in compromise*. (RSPB, 93 pp.)
Carson, R. (1963) *Silent Spring.* (Hamish Hamilton, London, 304 pp.)
Deane, R. - compiler (2018) *Exmoor's Ambition: Our transformative proposal for sustaining and enhancing Exmoor's farmed landscapes and communities after Brexit.* 37 pp (EHFN/ENPA)
www.exmoor-nationalpark.gov.uk/exmoorsambition
Deane, R. & Walker, A. (2018) *Towards a Register of Exmoor's Natural Capital*. (Exmoor Society, 24 pp.)
Defra (2011) *The Natural Choice: securing the value of nature.*(TSO Norwich UK 78 pp)
Helm, D. (2015) *Natural Capital: Valuing the Planet.* (Yale Univ. Press, 268 pp.)
Howe, K & Wibberley, EJ (2017) 'A Snapshot of Exmoor Farming Businesses in 2015/16'. *Exmoor Review* 58, 90–94.

Jones, C.R., Jones, J., Ursell, D.J., Warren, B. & Wibberley, E.J. (2015) Supporting Farming Families through FCN, with particular reference to Devon, England. pp. 113-120 In *Healthy Agriculture for a Healthy World*, Vol.2 (Applied Papers), Proceedings of the International Farm Management Assoc.20th Congress (IFMA20) Quebec, Canada, July 2015.
Juniper, T. (2013) *What has nature ever done for us? (*Profile, London, 303 pp).
Knight, D & Wibberley, EJ (2017) 'Managing Progress through Farmer Networks: Exmoor Hill Farming Network, UK'. International Farm Management Assoc. (IFMA21), Edinburgh, July 2017. www.ifma21.org
Korten, D.C. (1995) When Corporations Rule the World. (Kumarian Press, Connecticut, USA, 374 pp.).
Lawton, J. (2010) *Making Space for Nature*: a review of England's wildlife sites and ecological network Report to Defra, UK Government.
Mellanby, K. (1967) *Pesticides & Pollution*. (Collins, New Nat., London, 219 pp.)
Nyangweso, P. & Wibberley, E.J. (2019) Farmer Managerial Sovereignty. IFMA 22, Tasmania, March 2019 (in press).
Pearce, D., Markandya, A. & Barbier, E.B. (1989) *Blueprint for a Green Economy.* (Earthscan UK 192 pp)
Rose Regeneration (2013) *Putting the Spotlight on Farming Communities*: *the role of farmer networks in challenging areas* (RASE/Rose Regeneration/All Party Parliamentary Group on Hill Farming, 32 pp.).
Russell, E.J. (1957) *The World of the Soil*. (Collins New Naturalist, 285 pp.)
Schumacher, E.F. (1974) *Small is Beautiful*. (Abacus, London, 255 pp).
Stapledon, R.G. (1964) *Human Ecology* (Faber & Faber, London, 240 pp.)
Stiglitz, J. (2002) *Globalisation and its discontents*. (Penguin, London 288 pp.)
Swift, J. (1726) *Gulliver's Travels*. (112 pp.)
Tree, I. (2018) *Wilding.* (Picador, Macmillan, UK, 362 pp.)
Wibberley, E.J. (1989) *Cereal Husbandry*. (Farming Press, UK & Diamond Enterprises, USA, 258 pp.)
Wibberley, E.J. & Turner, M.M. (2009) Farming and Rural Economy issues facing the South-West English Uplands. *Journal of the Royal Agricultural Society of England* **170**, 89-95 (www.rase.org.uk).
Wibberley, E.J. (2011) Managing towards Fairer International Agricultural Trading (FIAT). pp. 287-299 (Vol.2) In *Thriving in a Global Market: Innovation, Co-operation and Leadership*. International Farm Management Association (IFMA) 18th World Congress, New Zealand, March 2011 (eds. Gardner, J. & Shadbolt, N.).
Wibberley, E.J. (2013) Sustainable Agriculture and Ecosystem Security in International Perspective. HRH The Prince of Wales's Food & Farming Summer School, July 2013.
Wibberley, E.J. (2014) Treasuring Trees for Agricultural Management Transformation. *International Journal of Agricultural Management* **3**(3) 127-134.