1. Introduction

(1) OF&G welcomes the inquiry alongside the recent publication of the Agriculture Bill, Environment Bill and launch of new National Food Strategy (NFS), and the ambition it shows for sustainable food and farming.

(2) As stated by Defra, the NFS emphasises the need for “resilient, sustainable and humane agriculture” and food and farming that “restores and enhances the natural environment for the next generation in this country.”

(3) Organic food and farming provides a well-evidenced and proven component to meeting these aspirations. Organic is built on a verified, system-based approach to food production that is proven to be successful for the environment and in the marketplace.

(4) With 85% of the population currently buying some organic food and drink annually, recent Kantar data provided by the Organic Trade Board (OTB) shows UK sales value growth in organic food and drink of around 6.5% on the previous year with improving performance toward the end of last year. This is against a backdrop of overall UK food and drink sales up 1.4% over the same period.

(5) OTB consumer research also shows that just over a quarter of the total UK population strongly consider buying organic food and drink, with around a third of younger consumers and households with young children also strongly considering buying.

(6) Currently, almost 85,000 hectares are under organic land management in Wales representing 4.9% of the total agricultural land area in Wales (this compares with 2.7% of the total agricultural land area in UK). Farmed by over 600 certified organic producers and marketed by 128 processors in Wales, overall numbers increased by 1.1% on the previous year. Compared with Scotland, England and N. Ireland, Wales is the only devolved nation in the UK to see an increase. Wales has at its heart long-standing organic farms some having been farmed organically for over 70 years - organic clearly works.
Organic systems are based on principles of health, ecology, fairness and care, proven to simultaneously and consistently deliver on multiple public goods. These principles increasingly mirror concerns regarding climate change mitigation, animal welfare, and protection of biodiversity and the environment. Organic systems provide increased resilience in the face of severe climate events, as well as providing a well-evidenced approach to conserving finite resources.

By working within defined constraints focused on resource use, health and ethical challenges that are now clearly a priority for all farming, the organic sector has been a test-bed for systems, techniques and technology that are being adopted more widely in agriculture and horticulture. Organic is a source of systems innovation, rather than simply an incremental improvement in efficiency. Such innovation is crucial. Within these constraints, legally defined in organic standards and independently audited, organic food is enabling consumers wanting to support ‘the change’.

There is mention in the Agriculture Bill of Agroecology in terms of a “better understanding of agroecology”. The implication of this as an “inclusive” approach suggests a whole new suite of policies which already exist (to an extent) for organic. Duplication of schemes would not be helpful either. Organic certification is the certification scheme for agroecology and development of this would therefore be constructive. The creation of a parallel market label for ‘agroecology’ would undoubtedly cause confusion in the minds of the consumer as market research has shown.

2. Trade issues – maintaining organic standards, enabling fair trade

The United States is the leading market of £34 billion, followed by Germany (£8.5 billion), France (£6.7 billion), and China (£6.5 billion). In 2017, many major markets continued to show double-digit growth rates, and the French organic market grew by 18%. The Swiss spent the most on organic food (288 Euros per capita in 2017). Denmark had the highest organic market share (13.3% of the total food market).1

The global organic market is predicted to grow from $124b in 2017 to $323B by 2024.

In 2016 UK exports of organic food were estimated to be 8.5% of total UK organic market value (with 5% of total UK organic market value destined for the EU) – in the same year 19% of total UK food and drink value was exported.

While opportunities exist across the globe it is important to recognise that the EU still represents our most significant export market with around 60% of food, feed and drinks exports destined for the EU.

With regard to future trade arrangements the ideal scenario would be that the current organic trade arrangements are maintained via bilateral mutual recognition (equivalency) agreements between the UK and the EU, the US and other third countries (South Korea, Chile, Switzerland, etc) respectively.

On the 1st January 2021 the EU will implement a new organic regulation (848/2018) however the final implementing and delegating acts have yet to be published so we (OF&G) don’t have a final document identifying the changes yet. We have looked at the differences but until it is all settled, we cannot confirm the position.

The new organic regulation (848/2018) however does require that third countries have to be recognised under a trade agreement as having a system of production meeting the same objectives and principles by applying rules which ensure the same level of assurance of conformity as those of the Union.

In other words 848/2018 precludes bilateral mutual recognition agreements and requires that third countries are compliant (not equivalent) with the EU regulation via a trade agreement. All current third country equivalency arrangements will expire on 31st December 2025

From a domestic perspective we will have mutual recognition agreements in place from 1st January 2021 with the US and others. Whether these are superseded by future trade agreements remains to be seen. With 848/2018 coming into force however on the 1st January 2021 (the end of the transition period) whether the EU will agree a UK/EU bilateral mutual recognition agreement in place on 1st January 2021 remains unclear.

If a bilateral mutual recognition agreement with the EU is not possible then UK Organic Control Bodies’ will need to apply for recognition as equivalent to the EU COM under Annex IV of 1235/2008 in which case pretty much the whole UK supply chain will need to be certified to 848/2018 to allow export to the EU. In this scenario we could well find ourselves with a UK organic standard (Defra have indicated they will not accept 848/2018 preferring to take the best of the existing EU regulation and EU Reg 848 plus some UK specific
elements) plus the new EU organic standard (effectively a private standard in the UK) and any additional requirements from third country equivalencies (like antibiotic free milk required with the US/UK equivalency agreement).

(11) Defra has said from the outset that they will accept organic imports from third countries but what that actually looks like we have still to see. We assume they will not just accept anything from anywhere on the basis that the documentation says its ‘organic’ so this needs to be confirmed and there is of course the thorny issue of tariffs.

(12) There is as a consequence various implications to the Welsh operators

- There could well be two organic regulations being widely used with additional associated costs and complexity
- Opportunities to export organic goods could be complex with additional associated costs and complexity
- Imports could be produced to lower standards and at a significantly higher scale placing operators at a commercial disadvantage.

(13) Following the implementation of 848/2018 within the EU this will be followed undoubtedly by a period of consolidation which will require numerous changes to the regulation as written. The EU will also enter into trade discussions as the current EU/US equivalency arrangements will need to be negotiated as a consequence of this legislation. Alongside this, the UK will be developing our own organic standards and regulatory framework requirements. All this will mean that the organic standards and regulatory environment will remain very fluid in the coming years.

(14) With regard to Trade within the Agriculture Bill there is a focus on Section 36, clause 6 (c) in relation to organic imports. While the Bill states in clause 6 (b) that “imported organic products are produced in an overseas country which is recognised in accordance with the regulations as controlling or enforcing standards relating to organic products equivalent to those applicable in the United Kingdom;” It then goes on to state in Clause (c) that “imported organic products comply with conditions specified in an international trade agreement.” The implication of this is that depending on the terms of a trade agreement organic products may enter the UK at a standard that financially disadvantage UK operators or undermines consumer confidence.

(15) To ensure that UK organic regulations remain fit for purpose by maintaining trade flow, ensuring domestic and export market growth and ‘public good’ potential is realised, as foreseen in the Agriculture Bill, any trade agreement:
• must not financially disadvantage UK organic producers, manufacturers and traders,
• must not undermine consumer confidence in organic by allowing products that fail to meet current UK organic standards,
• must ensure the continuance of the core principles of organic production that underwrite the simultaneous delivery of multiple public goods,
• must ensure mutual recognition with current and anticipated future organic regulations in our largest trading partners (namely the EU and US).

(16) Areas of concerns include:
• GM labelling and content,
• Organic Hydroponics,
• Pre-stunning at slaughter,
• Access to pasture and ranging,
• Fortification of organic foods.

(17) Consequently, the UK organic sector proposes that any organic mutual recognition arrangements with third countries are separated from broader trade negotiations. This would allow subsequent changes within respective legal standards and regulatory requirements to be addressed in a timely way and independent of any wider trade agreement (with the consequential challenges this would create for the organic sector).

3. Agriculture Bill

(1) We welcome the addition of soil to Part 1, Chapter 1 (1)(j), the reference to ‘agroecology’ in clause 5, and the inclusion of specific provisions relating to organic production in Part 5(36-37). These were not in the previous Bill, they substantially strengthen the Bill.

(2) Organic production is in line with the objectives of the Agriculture Bill – multi-functional, with well evidenced outcomes and consumer confidence.

(3) The mention of agroecology in Clause 5 is limited to the clarification that “better understanding of the environment” includes better understanding of agroecology. This fails to recognise that there is already a very good understanding of agroecology, although there is no single definition of the term. Agroecology can cover a wide range of approaches. Organic production is a leading example of an agroecological system.
There is thus an opportunity for the implementation of clear policies in support of specifically organic systems. Organic production is well established and well-regulated in the UK, in Europe and around the world. The well-defined standard, enforced through regulation is implemented by farmers on 0.5 million hectares in the UK, with a market value of £2.2Bn in the UK and $105 billion (€97 billion) worldwide.

3.1 Organic production – Part 5 (36, 37)

(1) Provisions for organic production are included in the Part 5, Clauses 36 and 37. Issues relating to maintaining organic standards and enabling fair trade are outlined in section 2 of this submission.

(2) Clause 36, paragraph (3) outlines the purposes of organic production, specifying a list, (a) to (h), of the ‘public good’ objectives and outcomes expected from organic production. These include reference to climate change, natural resource use, biodiversity, health and welfare of livestock, health of plants, quality of soil, landscape. It is welcome that the Bill acknowledges these public good outcomes of organic production. However, protecting or improving water quality is not included in this list. Due to the restriction of pesticide and fertiliser use, this is a significant benefit of organic production. The Bill is inconsistent in that Part 1, Chapter 1, relating to the new financial assistance powers includes reference to water.

(3) The explanatory note (Paragraph 319) makes it clear that (a) to (h) is a non-exhaustive list, and that provisions may be made in relation to the organic certification of organic producers from the point of view of the objectives, principles and standards of organic production. This offers scope for legislation to be introduced that can enable the area of organic production to increase for public good purposes.

(4) Payment to reward organic farmers for the provision of these public goods should preferably be based on their value rather than on income foregone by the organic farmer, as is the case in the current agri-environment scheme.

(5) Further provisions relating to organic production are specified in (i), (j) and (k) of paragraph 3, Clause 36. These include scope

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for promoting organic production; as well as innovation and research; securing the maintenance of the principles of organic production; and, maintaining consumer confidence in organic products.

(6) Consequently, there is scope for action by government, working in partnership with the sector, including businesses and organisations, to increase the area of organic production and respond to both domestic and export organic markets (for example in Europe and North America).

3.2 Organic system thinking and land sharing

(1) Farm businesses face increasing financial pressure as gross margins are constricted by market economics. Threats to biological diversity and extreme weather events are taking their toll, leading to crucial debate around the best way to manage the countryside, tackle climate change and produce sustainable food supplies and health promoting diets.

(2) OF&G believes government policy must focus on ‘land sharing’ rather than ‘land sparing’ as a solution to our future agricultural production needs. Organic is a ‘system-based’ approach providing many linked benefits – it enables ecosystem functionality within the constraints imposed by planetary boundaries. This is not reflected in the Agriculture Bill, and will inevitably limit the scope for a transition to Net Zero Carbon.

(3) OF&G have produced two images of the same landscape (see Annex). One integrating a land sharing approach with its resultant multiple positive impacts and one integrating a land sparing approach. Beyond the economics of food production and discussions around the quantification of biodiversity gains and CO2 equivalents, we also have to consider the human element. Spending time enjoying our natural environment is empowering. So, ask yourself: if you wanted to go for a country walk this weekend – which landscape would you prefer?

(4) Land sparing seeks to intensify production on higher quality agricultural land while lower quality land is ‘spared’ for nature. The thinking behind this approach is based on experience from the Global South where agricultural production negatively impacts natural landscapes and consequently there needs to be a clear separation between the two. Virgin landscapes do not however exist in the UK any longer, our entire landscape having been shaped by human activity over last two millennia and more.
What is recognised now is that biodiversity in species type and abundance has declined significantly relatively recently with the development of ‘modern’ farming practices. To halt and reverse this decline it is being suggested that large sections of UK agricultural land are reverted to natural habitats. This is bold thinking but suggesting that the resultant lost agricultural production could be made up by utilising input-intensive systems is not credible.

This land sparing model is predicated on achieving much higher yields on the land remaining in agricultural production through a further increase in intensification. Consequently, there will be continued soil degradation, similar or increased GHG emissions through the use of artificial fertilisers and a continuing decline in biodiversity in these areas (including pollinators). The consequence of this is the on-going degradation of our most productive agricultural land through the continuation, in essence, of current techniques. The manufacture of artificial nitrogen alone emits just under 4kg CO2e for every kilo of N produced. Combine this with the field losses, including those directly attributable to fertiliser use, then for every kilo of N applied around 10kg of CO2 are emitted.

A sustainable business model needs to consider its financial position from the perspective of the whole balance sheet, through protecting and improving natural assets and limiting future liabilities, rather than focusing solely on ‘efficiency’ within the farm gate, this simply encourages the externalisation of the environmental and health costs, analysis by the Sustainable Food Trust suggests that these costs exceed the value of the agricultural economy by some margin.

Land sharing comprises the integration of agricultural production with more environmentally friendly techniques, bringing nature into the field rather than displacing it somewhere else. Agroecological and organic farming techniques, and interrelated activities across the food supply network, seek to provide food while simultaneously delivering multiple environmental benefits.

Stacking a diverse range of benefits within a complex systems-based approach in this way is proven to be far more resilient in the face of both climatic and economic shocks.

None of this however can be achieved without consideration of our diet. Wales is renowned for the quality of its red meat. However, the importance of healthy and sustainable eating patterns, with only moderate amounts of meat and dairy, is increasingly being recognised in national dietary guidelines, including the UK’s EatWell Guide. In the UK meat consumption is more than twice the
global average\(^3\), if this high consumption continues, it is likely that meat and livestock products (both ruminant and non-ruminant), will continue to be imported from lower cost countries, with poor environmental and animal welfare conditions. At the same time, it will result in off-shoring of the environmental impact (including GHG emissions, biodiversity loss and pollution).

(11) It is critical therefore that there is recognition of the benefits and value of extensive red meat production. A transition to less and better meat and dairy will bring a host of benefits from reducing greenhouse gas emissions, freeing up land to support biodiversity and carbon sequestration, improve animal welfare and reduce antibiotic use.

(12) It is interesting to consider what “better” means in this context but some suggest it means choosing meat and dairy from well-managed production systems that enable natural behaviour, support good health and have a diet based around local food sources and home-grown feedstuffs, using for example European native legumes and also by choosing meat and dairy from smaller-scale, higher standard domestic producers. Choosing meat and dairy with a known provenance can reconnect producers and their customers such as through farm shops, box schemes, farmers markets and independent bakers, butchers and grocers.

(13) Currently, there is no label that delivers neatly across all the requirements outlined for meat and dairy, although organic comes closest.

\^3 \text{http://www.fao.org/faostat/en/#data/CL}
Organic farming and growing delivers public goods by 'land sharing'—

1. Diversity and crop rotations
2. Recycling nutrients, soil health and fertility, and building soil carbon
3. Grass-based animal production
4. High animal welfare
5. Unimproved grassland
6. Hedges and field margins for wildlife
7. Reduced pollution and GHG emissions per acre
8. Trees and permanent crops
9. Connecting consumers with their food
10. Increased employment and vibrant rural communities
## Organic farming and growing delivers public goods by ‘land sharing’

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<tr>
<th>Key</th>
<th>Elements</th>
<th>Outcomes</th>
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| 1. Diversity and crop rotations | • Varied crop rotations including legumes, vegetables and pulses  
• Greater productive capacity and significant yield potential  
• More genetic diversity and greater resilience | Approach based on a whole farm ‘system’ delivering multiple outcomes simultaneously with a resultant enhanced cumulative impact.  
Simultaneous outcomes are:  
• Building productive capacity and resilience through utilisation of complex natural systems  
• More biodiversity • Reduced nutrient and pesticide pollution and its negative effects on the environment and human health  
• Improved soil health and fertility • Increased carbon sequestration  
• Reduced GHG emissions  
• Avoidance of GM hazards  
• Increased food crop diversity  
• High animal welfare  
• Limited use of antibiotics and other veterinary interventions  
• Reduced antimicrobial resistance risk  
• Reduced imported animal feed  
• Less but better meat and balanced diets  
• Increased public access, heritage and culture  
• Connected wildlife corridors and more abundant and diverse habitats created and protected  
• More trees to stabilise local and overall climate  
• Managed and minimised flooding risk  
• Landscape diversity  
• Connecting consumers with their food and environment  
• Diverse and abundant landscapes easily accessible for all to enjoy |
| 2. Recycling nutrients, soil health and fertility, and building soil carbon | • Recycling of animal manures  
• Careful composting  
• Building soil fertility and health | |
| 3. Grass-based animal production | • Grass-based livestock rearing for ruminant meat, dairy and egg production  
• Increased carbon sequestration  
• Increased quality of life and welfare for livestock | |
| 4. High animal welfare | • Livestock feeding and housing that maximises welfare and aims for positive health  
• Outdoor access for pigs, chickens, cows and sheep | |
| 5. Unimproved grassland | • Increased carbon sequestration  
• Greater biodiversity | |
| 6. Hedges and field management for wildlife | • Increased diversity and abundance of natural flora and fauna  
• Uncropped areas and woodland  
• Increased pollinators and natural predators | |
| 7. Reduced pollution and GHG emissions per hectare | • Lakes and water courses protected from pollution  
• Landscape water management  
• Minimal or no use of synthetic fertilisers and agro-chemicals | |
| 8. Trees and permanent crops | • Agroforestry – combining food and biomass perennial cropping with crop and livestock production | |
| 9. Connecting consumers with their food | • Innovative and low carbon models for distribution that engage consumers with their food, health and wider environment | |
| 10. Increased employment and vibrant rural communities | • Reduced climate change effects and GHG emissions  
• More biodiversity  
• Shorter supply chains/direct supply | |
Non-organic farming and growing does not deliver public goods by 'land sparing'

1 Uniformity and monoculture
2 Open nutrient cycle
3 Intensive livestock production
4 Less hedgerows and wildlife corridors
5 Soil erosion
6 Use of fossil fuel based inputs
7 Increased pollution and GHG emissions per acre
8 Poorer land marginalised 'for nature'
9 Increased transport corridors
10 Low employment
Non-organic farming and growing does not deliver public goods by ‘land sparing’

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<tr>
<th>Key</th>
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| 1. Uniformity and monoculture | • Mono-cropping – less crop variation in a simple rotation  
• Bioenergy crops | Approach based on simple linear ‘output less input’ whole farm model delivering single outcomes in isolation through ‘score card’ approach.  
The resultant outcomes are:  
• Loss of diversity found in natural systems  
• Loss of resilience  
• Reduced availability of fresh local food  
• Link between consumer and producer severed |
| 2. Open nutrient cycle | • Reliance on synthetic inputs  
• Loss of nutrients through the soil profile and to the atmosphere | Chronic depletion of organic matter and reduced soil health |
| 3. Intensive livestock production | • Minimal or no livestock access to pasture  
• Reliance on veterinary medicines and interventions  
• Reliance on imported feed | Poorer quality of life for animals and lower welfare  
Higher reliance on antibiotics with negative implications to human health |
| 4. Less hedgerows and wildlife corridors | • Larger fields with almost no naturally occurring vegetation  
• Loss of natural web with farming and nature separated | Biodiversity loss  
Loss of pollinators  
Loss of complex and rich ecosystems  
Loss of resilience |
| 5. Poor soil quality | • High soil erosion  
• Poor soil health  
• Poor carbon sequestration | Loss of productive capacity  
Estimated only 100 harvests remaining  
All life depends on healthy, vibrant soils |
| 6. Use of fossil fuel based inputs | • Agro-chemical inputs required to enable mono-cropping  
• Reliance on agro-chemicals and artificial fertilisers from energy intensive manufacturing process | High GHG emissions from synthetic fertiliser and agro-chemical manufacture and use  
Environmental pollution  
Human and wildlife health risk |
| 7. Increased pollution and GHG emissions | • More field operations  
• Biofuels reliant on energy intensive inputs | Negative impacts on environment overall |
| 8. Poorer land marginalised for nature | • Loss of natural web with farming and nature separated | Areas separated rather than nature being integrated into a broader vibrant landscape, all can access easily |
| 9. Increased transport | • Transport of farm inputs, crops and livestock in larger quantities  
• Transport of biofuel inputs | Greater fuel consumption  
Indirect increase in GHG emissions embedded in vehicles and fuel |
| 10. Low employment | Simplified systems requiring minimal labour and maximal mechanisation | Reduced rural employment opportunities
Population drift to towns and rural decline
Loss of meaningful work and skills in rural areas |