CARE Suffolk

Community Alliance for a Rural Environment

www.caresuffolk.org

Dear Members of the Land Use Committee,

Thank you very much for providing this opportunity to be part of the Land Use in England consultation. We have answered each of the questions in the accompanying report.

We stand at a bit of a crossroads in the future of our land use. We often hear and talk about a climate crisis and energy crisis, but we increasingly face a food crisis and a wildlife crisis.

It is almost embarrassing to say that some of the best and most obvious things we can do are the simple and discreet things at a local level, woven into the fabrics of our existing developed areas. But policy is weak at supporting these choices, and they are often overlooked in favour of the big and flashy developments.

However, with a more carefully considered approach to maximise the use of already developed land, we can make great strides to reduce the pressure to change land use in the first place. We must be clear, that any development on agricultural land and countryside is a blow to our food security and wildlife.

Averting one crisis at the detriment of another is a loss to us all, and our future generations.

Yours sincerely,

[redacted]

Samantha Main

Chair

CALL FOR EVIDENCE

HOUSE OF LORDS SELECT COMMITTEE ON LAND USE IN ENGLAND

Introduction

CARE Suffolk CIC is a community group based in Suffolk. Our membership is primarily based in the villages of and around the Bramford Substation. An area of beautiful countryside, high quality soil, and with large open spaces for wildlife to roam.

One major concern of ours in the current land use debate is the use of land for food production vs energy production, particularly large scale ground mounted solar. We believe that by proper utilisation our already developed land area, our countryside need not be built on so carelessly and can continue to contribute to food production, space for wildlife, and the countryside landscape. And as has been sharply brought to people's awareness these last two years, a haven for good mental wellbeing and exercise.

Pressures and Challenges

1. What do you see as the most notable current challenges in relation to land use in England? How might these challenges best be tackled? How do you foresee land use in England changing over the long term? How should competing priorities for land use be managed?

We all know that land area is finite. And the pressures to "use" it are greater than ever before, and increasing faster than ever before too.

To answer this question let me first share a short story of two men who had the cunning to maximise the developed use of a portion of their land.

One man had a growing arable business and needed a larger diesel tank and grain store. He commissioned a new state of the art diesel tank and had it buried underground, encased in concrete. On top of this he built a new grain store. And on the new grain store roof he fitted solar PV panels.

Another man had a dairy and cheese business. One of his cattle sheds needed updating. The old concrete floor was removed, and water pipes were installed underneath the new concrete floor. And on top of the cattle shed he fitted solar PV panels. When the cattle were housed indoors the heat the animals' bodies produced went into the floor to warm up the water. The warmer water then needed less energy to fully heat up, by the solar panels, to be of use in his cheese-making business, using milk from the same cows in the cattle shed.

Land is a finite resource. But there is space below it, on it, and above it. Both of these men were able to use all three spaces of the same land area. And in doing so, undeveloped areas were able to continue to contribute to food production, space for wildlife, and the countryside landscape.

Both of these men could have much more quickly and cheaply built standalone developments next to each other, using standard run-of-the-mill technology. But they chose to take the time and resources to plan carefully and integrate them into one for maximum benefit.

Sadly, these examples are the rarity.

We see the most notable current challenges in relation to land use being:

- the inability of policy to demand that we fully utilise the under-, on-, and above-ground spaces;
- a focus on short term goals and money saving, rather than long term sustainability and resilience;
- continued poor choices of technology in the wrong places;
- and overlooking the views of the local communities who are the impacted the most by land use change.

2. What are the key drivers of land use change which need to be planned for, and how should they be planned for? What is the role of multifunctional land use strategies in implementing these plans?

A study by the UK Centre of Ecology and Hydrology suggested a loss of two million acres between 1990 and 2025, and a study by the University of Cambridge 2014 suggested a land shortfall to farming of two million hectares (4.8 million acres) by 2030. Let us all be clear in this. Regardless of what the land use becomes, be it housing, woodland, or energy production, it is always a loss to agriculture and our food security. There is little comfort in having a warm house and hot oven if you have nothing to cook in it.

Using land for multiple purposes is admirable and key to making the most of what little we have, but policy is weak at enforcing it. Houses and industrial buildings can be built with no need for on-site energy production, for which technology exists and is easy to install, but difficult and costly to retrofit. This lack of joined up thinking and multipurpose use in our developed areas, where the demand for energy is, then puts even greater pressure on remaining land which is then required for energy production. This unnecessarily creates further losses to food production, space for nature, and increases electricity waste through long distance transmission.

Policy that ensures all new buildings are fitted with on-site energy production will be a key strategy to mitigating the pressure on land use. Technology now exists for solar PV rooftiles and even windows, small vertical wind turbines and wind walls. We no longer need to limit our thinking to large solar panels and giant wind turbines. Some of these technologies can be integrated discreetly into existing built areas. Some highways in the US for example have small vertical wind turbines in their highway central reservations, utilising the wind created by passing traffic to generate electricity for nearby housing and business. Small integrated changes can make a wonderful difference. Big standalone changes are increasingly making a disastrous difference.

Solar rooftiles

Solar windows

Vertical “flower” wind turbine

Wind wall

There are further concerns regarding the accounting of land use. As ground-mounted solar PV developments are approved and built the land is typically no longer used for food production. It is used for industrial energy production. But the land use is still recorded as agricultural land, not industrial. This is due to a clause that many developers are including in their applications to get around the change of use process, stating that the landowner *may* extensively graze sheep under the panels, so agricultural use *may* not be entirely lost. Yet no sheep ever appear because the arable farmstead has no provision for livestock welfare. This is distorting land use figures. We believe changes are needed in policy to remove this loophole and distortion.

3. How might we achieve greater and more effective coordination, integration and delivery of land use policy and management at a central, regional, local and landscape level?

The guidance on land use that is provided through the NPPF (National Planning Policy Framework) is open to considerable interpretation. It is clear from Parliamentary debates (such as the Large-scale solar farm debate in Westmister Hall on 9th March 2022 that the intentions of NPPF planning policy are not being interpreted in the same way at a local level. Whilst a positive approach to development is commendable, it is failing to protect important designations such as our high grade farmland and ancient woodland from direct and indirect impacts. Decisions made at local level vary considerably leading to an incoherent approach to important national land use decisions.

If you truly want to protect something, such as productive farmland and all the wider benefits that the farmland and countryside provide, then policy must be strengthened to protect it. Our group is seeing policy at all levels, designed

to protect the countryside, being waltzed over because of the current “we’d prefer you didn’t use this land but we aren’t going to say no” approach in policy wording.

Further, we are not seeing strong policy and decision making that contributes to more sustainable and resilient communities and developments in housing and industrial areas. Policy to ensure all new buildings have solar PV and ground source heat pumps increases the sustainability and resilience of the community, and reduces the pressure to provide these things on land elsewhere. Further, ensuring new developments incorporate places for communities to grow their own food, such as allotments or even small gardens can go a long way to retaining some green spaces and reducing food miles. It is embarrassing to be mentioning such obvious and simple things.

Farming and Land Management

4. What impacts are changes to farming and agricultural practices, including food production, likely to have on land use in England? What is the role of new technology and changing standards of land management?

Food production systems are changing to become more sustainable and techniques such as regenerative farming, incorporating such things as precision farming, will become more dominant. Techniques such as regenerative farming gives us the ability to produce food and encourage wildlife all in one space. This one space also has the potential to enhance the local landscape, contribute to good health for local residents, protect the setting of nearby heritage assets, and encourage a strong local economy from tourism.

However, protecting productive land will be central to maintaining food security as well as the other benefits above.

But determining agricultural land for its productivity is not without its challenges. The current system is based on the MAFF Agricultural Land Classification (ALC) system developed in 1988. The system produces 6 grades of land – grades 1, 2 & 3a are considered Best & Most Versatile Land (BMVL) and grades 3b, 4 & 5 are poor and non-agricultural land. The metrics used in this are old and no longer fit for purpose. In particular the split between 3a and 3b land is very marginal and very productive farmland is often designated 3b land. Technology and soil study has moved on since 1988.

Advances in irrigation for example has seen many of our grade 4 soils become very productive for vegetables. The Nacton area (southeast of Ipswich, Suffolk) is classed as grade 4 land according to MAFF. Developers are quick to point out how grade 4 is a poor quality of land and how policy prefers this to be built on before high grade land, fast tracking it through scrutiny on this particular topic. But grade 4 land can also be abundant in outdoor vegetable production. Much of the Suffolk and Norfolk coast is similar.

Our grade 1, 2, and 3a land, whilst supposedly afforded protection in the NPPF 2021, is not getting much protection in real life though. We have seen claims from developers that the MAFF ALC system is focused on climate and soil characteristics, which supposedly means that poor land management cannot influence the given grade. Land in the Bramford area of Suffolk is primarily grades 2 and 3a. But 600 acres is currently proposed for ground-mounted solar PV development. The developers claim that the agricultural land will not be lost or degraded, and can be used again if the solar panels are removed in 35-40 years time. However, one application admits a 10% rate of soil erosion as a direct result of the solar development. One of the soil characteristics considered for the ALC system is topsoil depth. A loss of 10%, a direct result of poor land management decisions, would instantly degrade the 2 and 3a land down to 3b at best.

Combining all land grades with yield data as proposed in the National Food Strategy and then using this in revised NPPF guidelines, removing the need for a split between 3a and 3b, would provide some greater protection for lower grades of land which are productive because of advances in technology and farming practices, but also go some way to strengthening the protection of productive BMVL for areas.

Alternatively, other systems of land/soil classification could be incorporated. One of these is Soilscapes. Soilscapes was sponsored by Defra and created from the more detailed National Soil Map with the purpose of effectively communicating a general understanding of the variations which occur between soil types, and how soils affect the environment. Soil heavily influences our whole ecosystem and is a fragile resource that needs to be understood and protected. There are 27 descriptions that cover issues such as drainage, fertility, carbon and cropping.

We would also like to make a special note that whilst much of our arable farmland is considered to be intensive, it is not exclusively so. Many of the farmers in our area do use intensive agricultural practices. But they also use techniques considered traditional, regenerative, and extensive. The loss of intensively used farmland is usually a loss of other more sustainable practices too.

Protecting our agricultural land, regardless of grade, is and will be central to maintaining food security.

When a field disappears from agricultural use the demand for the food does not disappear along with it. The source of production is merely shifted. Considering the demands of land use in the UK, that new source is unlikely to be the UK. But somewhere much further away, perhaps where rainforest was cleared in South America or where another plastic greenhouse can be erected in the Mediterranean or West Africa. This raises environmental and climate concerns, as safety and production standards may be lower and global CO2 increases due to higher food miles.

One effect predicted of climate change is the degradation of our soils, and with it the lowering of crop yields. Thus, making our BMVL even rarer, and all our agricultural land more important. We saw during the COVID pandemic how quickly Europe, and indeed countries around the world, were to shut their borders. And again when vaccines were being held back by Europe despite contracts for delivery to the UK. It would be foolish to not heed this lesson when it comes to our food security.

5. What impact are the forthcoming environmental land management schemes likely to have on agriculture, biodiversity and wellbeing? What do you see as their merits and disadvantages?

A key statement in the National Food Strategy is *"We need better data on how the land should be used. Unless we have a clear idea of which land should ideally be used for what we could compromise our food security or make our environment even worse."*

We believe one merit of the new schemes is an increased incentive to improve wildlife and nature. But there are concerns considering the rate of agricultural land loss and the consequential reduction in self-sufficiency. We saw how quickly other countries were to close their borders during the pandemic and hold back vaccine supplies. We should not for one second believe that this could not happen to food too, regardless of what contracts and trade agreements we have in place with companies and countries around the world.

One way to alleviate these concerns would be ensure habitat is enhanced in field margins. For example hedgerows are considered to be one of the UK's top priority habitats. But many of them are 1.5-2.5m high hedgerows. Losing an entire field, or in some cases an entire farm estate, to newly planted woodland (usually a coniferous monoculture) is a reckless use of land, when the same number of native deciduous trees could be discretely incorporated into the hedgerows of a valley. The latter option also has the benefits of improving the landscape, enhancing wildlife corridors and increasing habitat. We must enhance and make the most of what we already have first and foremost. Changing it for the sake of change is rarely in to anyone's benefit.

A further concern is that whilst the intention of the ELMS scheme is welcomed, it lacks detail and appears to demonstrate little understanding of real world farming.

Nature, Landscape and Biodiversity

6. What do you see as the key threats to nature and biodiversity in England in the short and longer term, and what role should land use policy have in tackling these?

Biodiversity is of great importance. It is important that in tackling the climate crisis, we do not inadvertently create a wildlife (and food) crisis in the process.

The 2021 Environment Bill mandates that most new development will deliver an overall gain in biodiversity, also referred to as Biodiversity Net Gain (BNG). This is therefore an important aspect for all local planning authorities to consider in approving or rejecting planning proposals.

We believe a key threat to nature and biodiversity in England is misuse and misunderstanding of the biodiversity metric used to calculate net gains, and land hungry developments such as ground-mounted solar PV.

<u>Biodiversity Metric</u>

Biodiversity is currently calculated by Biometric 3 (JPO 39) Natural England 07.2021.

However, ecologists in the UK generally regard the metric as not fit for purpose. And we have seen the results of the metric misquoted and taken out of context. Prof. K. Willis a leading ecologist from Oxford University said in 2021 that the BNG total "*will promote further loss and fragmentation of some of the UK's natural environment and even more important the ecosystem services that flow…*" She concludes that "*net biodiversity gain will end up being net biodiversity loss*".

There are caveats to the metric, included in the metric instructions itself, which are often ignored, overlooked, and misunderstood by developers and even planning officials, as follows:

- The metric calculation only accounts for direct impacts on habitats within the footprint of a development, such as the change of farmland to woodland. It does not calculate biodiversity change, only habitat change. Indirect impacts, which are important to consider, are not considered;
- Values uses to quantify habitat value are not absolute values based on the specific site surveyed, but are a generalisation of that type of habitat in it's typical form;

- The metric does not consider the mitigation hierarchy, only the generalised before and after habitat values based on the development proposed, so adverse impacts that could be avoided are not considered;
- The metric does not include any assessment of specific species, included those which are protected species, so a positive BNG does not a guarantee that protected species will remain;
- The metric makes no consideration of the time it takes for new habitat to grow and establish itself, giving the impression that gains are instantaneous, overlooking the fact that huge losses are usually needed up front;
- The metric does not consider the impact of change itself, and includes a caveat that a well-established existing site is likely to be of higher benefit to biodiversity than replacing it with a new and different habitat.

A research paper (Sophus zu Ermogasson et al, June 2021) backs up the above shortcomings of relying on the metric alone, and notes that losses in habitat areas (as a result of development) will be traded for habitats of higher distinctiveness in the future. The paper states "*Mandatory BNG will generally trade biodiversity losses today for uncertain future gains*".

The conclusion is "*It is widely recognised that promises of future biodiversity gains is risky*". The research was backed up by an analysis of 55 BNG assessments. In these there was a promise of a 25% increase in biodiversity but in fact there was a 34% reduction in green spaces.

Sophus zu Ermogasson concludes "*that the safest mechanism for reducing the biodiversity impact of infrastructure is to avoid impacts to biodiversity initially. In practice this means redirecting development to previously degraded sites wherever possible*".

Further, we understand that only about 40% of local authorities have an ecologist. If local authorities are to be expected to have a role in the development of local nature recovery strategies and the incorporation and analysis of biodiversity net gain in the planning system, it is important that local authorities are given the resources to properly analyse developments and land use change on the existing wildlife.

Ground-mounted Solar PV

Ground-mounted solar PV is of all the renewable energy developments, the most land hungry compared to energy generation. And whilst advances in technology has increased, solar PV remains at around 12-15% efficient, and requires around 5 acres per MW. Yet consider a wind turbine has around 40% efficiency and uses less than 1 acre per turbine.

Solar PV on the ground therefore requires huge swathes of land. Land once open, accessible and tranquil to wildlife, becomes fenced off and filled with equipment producing noise 24/7. Wildlife need large open spaces to thrive. The open space is lost to wildlife when solar PV is built and the land is fenced off.

It is widely said that ground-mounted solar PV is cheap. Suggesting that is why we should pursue it. But we must finish the sentence. Ground-mounted solar PV is cheap to install. The International Energy Agency stated in 2020 that solar is now the cheapest form of electricity for utility companies to build. There is no evidence that it is providing cheaper electricity to the wider public.

It would be negligent of us as a country to pursue a technology that is land hungry, inefficient compared to alternatives, and fences off huge swathes of open countryside for wildlife. Sacrificing our food production in the process. The public are crying out for solar PV to be put on houses and industrial buildings before we destroy the countryside and farmland for it.

We believe that the safest way to safeguard biodiversity and nature is to ensure they continue to have the wide open space to roam in the first place. We have seen many large-scale ground-mounted solar schemes claim huge biodiversity benefits, based on the same metric, whilst at the same time fencing off huge swathes of land from wildlife that use it for migration, foraging, and breeding. Using the existing developed land, by putting solar PV on rooftops first, will be key to protecting large open areas that wildlife currently have and need to thrive, and which we need to protect to avoid a wildlife crisis.

7. What are the merits and challenges of emerging policies such as nature-based solutions (including eco-system and carbon markets), local nature recovery strategies and the biodiversity net gain requirement? Are these policies compatible, and how can we ensure they support one another, and that they deliver effective benefits for nature?

Whilst the emerging policies are commendable for their intentions, many of them seem unfit for purpose and with unintended consequences.

Carbon markets for example encourage planting trees for carbon offsetting. But this encourages quick and easy development using productive farmland and non-native species for monoculture plantations. Wales is seeing this in vast numbers as farmsteads are bought up by investment companies. Policies should be focused on reducing carbon emissions first, and then offsetting. And should trees be planted, which should be encouraged, emphasis should be on planting them within the existing landscape first to make the most of our land as discussed further above.

We have discussed the short comings of the biodiversity net gain requirements above, and so shall not repeat them here.

Environment, climate change, energy and infrastructure

8. How will commitments such as the 25-year environment plan and the net zero target require changes to land use in England, and what other impacts might these changes have?

Whilst the 25-year environment plan and net zero targets are commendable, if we continue to focus on the wrong ways to achieve this, we are likely to fail in both goals.

We have discussed the risks to biodiversity above, and risk to net zero below, but without better metrics and consideration of development and land use change on the wider environment we risk being in the same, or worse, situation as we are now. This would be not be in keeping with the goal of leaving the environment in a better state for the next generation.

9. How should land use pressures around energy and infrastructure be managed?

Technology has changed so much. We are no longer bound to large solar arrays and giant wind turbines, on and offshore. Both of which have huge requirements for land use and significant adverse effects on the landscape,

wildlife, and communities hosting them. These adverse effects are widely highlighted and recognised in applications at national and local level. Yet policy continues to push them, and decisions continue to approve them.

There are also widespread concerns regarding the proliferation of large scale Battery Energy Storage Systems (BESS) alongside renewable energy developments. Particularly solar PV. Whilst the benefits of balancing the grid so that intermittent electricity is available when it is needed are to be welcomed, large scale BESS are not without their very hazardous potential impacts. This is evident from the BESS explosion and fire in Merseyside and the subsequent significant incident report produced by Merseyside Fire & Rescue. Recommendations were made regarding planning considerations for such installations as a direct result of the experience of the fire crews, but these recommendations (upwind access routes and high-pressure mains water on site for defensive purposes) are yet to flow into policy. Further, there it still no UK safety standard for large scale BESS (only small domestic units) and no inclination for the UK to produce one. Thus, unsafe developments are being approved and communities being unduly put at risk. If policy were to shift to a focus on integrating energy generation at a local scale (such as rooftop solar PV) then smaller domestic batteries can be installed alongside them, for which the UK has very strong safety guidance for.

As discussed further above there is new technology that enables us to integrate energy production into our existing developed areas. Local communities are keen to do their part and see this, but the choice on how to do that part is being forced on them with giant developments which overshadow the area. If the current direction of pushing large scale developments on communities continues then renewables will lose their support, and so will the politicians pushing them. Public support for renewables is already being lost because of this approach, and without such support we risk failing to achieve net zero.

Neither are we bound to transmitting our electricity over vast land distances using pylons and overhead lines. Underground lines are being pushed for by communities across the country for their many benefits, and an offshore transmission network ring was first put forward over a decade ago by some of those same communities, and yet is only in the last few years being seriously discussed. Studies show time and time again that the public want to see the countryside preserved and land use unchanged. But regulation has not kept pace with the desires of the public.

10. What do you see as the advantages and disadvantages of the existing land use planning system and associated frameworks in England? How effectively does the system manage competing demands on land, including the Government's housing and development objectives? What would be the merits of introducing a formal spatial planning framework or frameworks, and how might it be implemented?

Spatial planning is predominantly determined at a local level. And in many cases this appears to work well within the needs of the local authority area. This does not need to be changed.

Spatial policy regarding energy production appears to have already been created. Where once upon a time it was focused in the north for coal mining and coal plants, now we have offshore wind in East Anglia, the northwest, and Scotland for example. The Government must be careful to not undermine public support for renewables by imposing dominating, ugly, and harmful developments on communities that are between the point of production and the point to consumption.

We do not envision that a formal spatial planning framework decided at such a high level would have any merits.

11. What lessons may be learned from land use planning frameworks in the devolved nations and abroad, and how might these lessons apply to England?

No comment.

Conclusion

12. Which organisations would be best placed to plan and decide on the allocation of land for the various competing agendas for land use in England, and how should they set about doing so?

Defra appear to be currently responsible for land use, simply because rural areas are where the majority of land use change is happening. Housing estates are not being demolished to make way for new arable fields. And so they, or a new similar organisation, are likely to be the most suitable for the role.

However, we believe that the best way to deliver any land use targets will be achieved at local level, with the input of local communities on spatial land use from an early stage. As discussed above, recognising that developments have significant adverse impacts on communities but simultaneously imposing new development only seeks to undermine support for net zero and renewable energy. Land is where all of our issues come together, and land use change is really felt by the people who live and work in those communities. For anything to endure it must be supported by local communities in a bottom up approach of delivering local benefits first.

Current policy appears to be encouraging quick, cheap and easy options. Many of which are also big flashy developments. Consider the difference between a nation that produces the world's largest offshore wind turbine farm which is imposed on a few communities, and the nation that installs wind walls and solar PV tiles in every home for the benefit of local communities so that they don't even need one large wind turbine. Who do you think is more sustainable and resilient in the face of the many potential threats in this world? To move towards carefully thought out design we may not need to make as much change to land use as envisioned. We just need to make better use of the land which is already developed.