Land of opportunity



A new land use framework to restore nature and level up Britain

Strain a

Land of opportunity

A new land use framework to restore nature and level up Britain

Authors

James Elliott, Lydia Collas and Dustin Benton

Acknowledgements

With thanks to Heather Plumpton for her advice and input to this analysis.

We are grateful to the European Climate Foundation for supporting this work.

Green Alliance

Green Alliance is an independent think tank and charity focused on ambitious leadership for the environment. Since 1979, we have been working with the most influential leaders in business, NGOs and politics to accelerate political action and create transformative policy for a green and prosperous UK.

The Green Alliance Trust Registered charity no 1045395 Company limited by guarantee (England and Wales) no. 3037633

Published by Green Alliance August 2022

ISBN 978-1-912393-84-8

Designed by Howdy

© Green Alliance, August 2022

Green Alliance's work is licensed under a Creative Commons Attribution-Noncommercial-No derivative works 3.0 unported licence. This does not replace copyright but gives certain rights without having to ask Green Alliance for permission. Under this licence, our work may be shared freely. This provides the freedom to copy, distribute and transmit this work on to others, provided Green Alliance is credited as the author and text is unaltered. This work must not be resold or used for commercial purposes. These conditions can be waived under certain circumstances with the written permission of Green Alliance. For more information about this licence go to http://creativecommons.org/licenses/ by-nc-nd/3.0/





Please note: our Creative Commons licence does not cover the use of any photographic images featured in this report which are subject to separate copyright and must not be shared or copied without permission.

Contents

Summary	2
The need for an agricultural transition	5
Why the 'three compartment' approach makes the agricultural transition work	6
Restoring nature means eating differently	13
What the Land Use Framework should do	16
Endnotes	19

Summary

66

Expecting every parcel of land to produce food, nature, carbon removal, recreation and flood abatement in equal measure is a recipe for failure." What we ask of the countryside is changing.

Land, of course, is needed to produce food: we dedicate 70 per cent of the UK's land to farming. But, in the face of climate change and the loss of nature, land must also soak up carbon dioxide from the atmosphere, provide much more habitat for wildlife and help to defend against increasing natural risks like flooding. These needs are codified in new laws which require net negative greenhouse gas emissions from land by 2050 and a reversal of the 70 year decline in nature by 2030.

Expecting every parcel of land to produce food, nature, carbon removal, recreation and flood abatement in equal measure is a recipe for failure. There are hard trade-offs: managing land to maximise food production reduces its nature and carbon sequestration potential. Using peatlands to grow food in the way we do today imposes too high a carbon cost.

Instead, policy should make a virtue of the fact that natural capital varies enormously across space. Twenty per cent of farmed land in England produces just three per cent of the calories we grow and, as our analysis shows, using the least productive ten per cent of land for natural habitat and carbon removal would raise bird populations by 48 per cent by 2050 and save half the carbon needed by 2035 from the whole land system.

This 'three compartment' model of land use would meet all the government's goals for the land." The government's forthcoming Land Use Framework, announced in June 2022, must guide nature restoration and carbon removal towards areas poorly suited to producing food. It should also support farmers to keep food yields high on productive land while using much less fertiliser and pesticide: reductions of a quarter are possible without loss of production.

Rewarding habitat restoration on the least productive land would help level rural areas up: many farmers on poor quality land struggle to make a profit from producing food, but they could have good incomes from the habitat and carbon removal their land is suited to provide.

Using the least productive land for nature, and the most productive land for food will enable the remainder, the majority of farmland, to produce a mix of food, nature and carbon removal. Taken together, this 'three compartment' model of land use would meet all the government's goals for the land. It should form the basis of a spatially explicit Land Use Framework.

This framework would need to be more than advice, but less than command. Rather than dictating how land is used, it should show how the government proposes to fund the nature and climate outcomes that farmers and landowners can provide. It would show where the government believes land is best suited to produce food or nature, or both, and it would commit to funding (from public and private sources) to achieve the mix needed to meet the country's nature, climate and food goals. It would enable farmers to make sense of the Environmental Land Management scheme (ELM) and markets for ecosystem services, and to plan how to use their land in light of these new opportunities.



The need for an agricultural transition

66

To hit net zero across the whole economy, land use must be carbon negative before 2050." Agriculture and land use accounts for about 12 per cent of the UK's greenhouse gas emissions.¹ The main sources of emissions are methane and nitrous oxide, mainly from cattle and sheep, and carbon dioxide from degraded peatlands, particularly lowland fens. To hit net zero across the whole economy, land use must be carbon negative before 2050.

The UK is also one of the most nature depleted countries in the world. Since 1970, populations of species of conservation concern have declined by 60 per cent.² Long term decline has continued in the past decade, leaving one in every seven species threatened with extinction.³ There is, however, strong public support for action to reverse these trends.⁴

Seventy per cent of land in the UK is used for agriculture. Providing more space for nature, and for the important service of soaking up carbon dioxide from the atmosphere, has to involve a combination of improving habitats on farms as well as more semi-natural habitats for those species that can only survive in non-farmed environments.



Excluding biomass production, agriculture and land use must cut greenhouse gas emissions by nearly a third by 2035⁵

Why the 'three compartment' approach makes the agricultural transition work

66

The 'three compartment' approach can reconcile nature, climate and rural levelling up goals without any adverse impact on food self-sufficiency." The Land Use Framework must guide the countryside to produce healthy, sustainable food, become a net carbon sink and make space for nature. It can do this by supporting farmers to pursue one of three broad approaches.

First, using the least productive land to provide the majority of greenhouse gas removals and to expand semi-natural habitats for wildlife.

Second, producing the majority of our food on the most productive land, with support to reduce inputs and increase sustainability without lowering yields.

Third, supporting farmers on the remaining land to boost their incomes from payments to integrate much more space for nature into their farms, even where it results in lower agricultural yields.

When combined with a shift to healthy and sustainable diets, this 'three compartment' approach can reconcile nature, climate and rural levelling up goals without any adverse impact on food self-sufficiency.⁶ Here we outline the benefits for both farmers and the environment.

1

Make environmental delivery pay where food production doesn't

Not all land in the UK is suited to producing food. The least productive ten per cent in England grows only one per cent of total food produced.⁷ The least productive 20 per cent produces just three per cent. It is difficult to make money from farming in these areas: government subsidies amount to 91 per cent of farm incomes.⁸

These subsidies are contingent on a type of farming that seeks mainly to produce food, from land that is unsuited to this purpose. The result is poor farm incomes, high greenhouse gas emissions and a lost opportunity to restore habitats for nature.

Subsidy should change to pay farmers to restore semi-natural habitats, like woodlands, peat bogs or heathland, which wild species rely on. This will also help to protect communities from flooding and mitigate climate change by storing carbon.

Good value for public money

In line with the National Food Strategy, we propose restoring ten per cent of UK farmland to semi-natural habitat by 2035, with further restoration after that.⁹ This would get the UK most of the way towards its climate and nature goals from land use, with very little impact on food production.

By 2035, this would cut agricultural emissions by $5.5MtCO_2e$ per year and increase carbon removals to over $6MtCO_2e$ per year, resulting in an 18 per cent overall net reduction of agriculture and land use emissions.¹⁰ This is over half of the net emission reductions needed from these sectors, from just ten per cent of farmland.

The benefits to nature would be huge. By 2050, this habitat restoration would see the average population size of UK bird species increase by up to 48 per cent, compared to a projected decline of around six per cent if no changes were made.¹¹

Bird numbers are expected to increase if ten per cent of UK farmland is restored to semi-natural habitat by 2050¹²

Average change in population size of all species by 2050

With habitat restoration 48% increase

Without habitat restoration 6% decrease

Today





66

Restoring ten per cent of UK farmland would get the UK most of the way towards its climate and nature goals from land use."

Shifting primarily to a business based on habitat restoration would bring profit to farms that have struggled."

Levelling up rural Britain

Shifting primarily to a business based on habitat restoration would bring profit to farms that have struggled to make money from unproductive land. In the five years from 2015-2020, English farms in 'less favoured areas' (LFAs) lost an average of £37,060 a year on food production when unpaid family labour was taken into account.¹³ In contrast, a farmer on a 50 hectare holding could enjoy an income of £28,000 a year with payments of £775 per hectare for habitat creation.¹⁴

Applying this payment rate across England would see £0.6 billion per year paid to farmers to restore ten per cent of English farmland, with robust rural incomes to match the restoration of nature. This is nearly a third of the farming budget well spent on levelling up that increases bird populations by half and meets half of the land use sector's climate targets.

The payment rate proposed may sound high, but it is similar to the annual payment rates under the current Countryside Stewardship Scheme of £657 per hectare for supplementary feeding of winter birds and £566 per hectare for fallow plots for lapwings. And this proposal would buy more positive effects for nature.

Many farmers would be better off if paid to restore habitats

The chart opposite shows that, if all the labour carried out by the farmer and their family is paid for, the average farm business in an LFA makes an overall loss of about £1,270 per year. In particular, in the food production part of the business, costs far outweigh income, with the losses being made up by money from Basic Payment Scheme subsidies, participation in environmental schemes, and diversification such as holiday lets.

If the farmer was paid for all their labour, between 2015 and 2020 the average LFA farm would have lost money¹⁵



On average over the five years from 2015 to 2020, LFA farmers who owned their land received around £40,500 a year in government payments and saw a financial return, effectively the pay of the farmer and their family, of £23,400, equivalent to £6.92 per hour, which is below the living wage.¹⁶ This was lower for tenant farmers who also need to pay rent on their land. Switching to focus on environmental delivery, as we have outlined in this report, could see a 50 hectare area of land give a return of £28,000, without requiring them to work more than usual working hours without additional pay. The average LFA farm is 85 hectares.



Restoring habitats could increase returns for farmers in LFAs¹⁷

It would be wrong to think that highly productive farms have to be nature deserts." 2

Maximise sustainable food production on the best agricultural land

Some land is well suited to food production. The top performing 25 per cent of farms in England are profitable from food production alone, and 40 per cent of land in England produces two thirds of the food.¹⁸ It makes sense to use the most productive land, which is profitable without subsidy, to meet the bulk of food demand.

These farms can and must limit negative impacts on the natural world, such as water and air pollution and soil degradation. It would be wrong to think that highly productive farms have to be nature deserts: nature can be encouraged by interventions that keep yields high; for example, buffer strips for wildlife on arable farms can maintain and even increase yields of some crops, as can nurturing healthy soils.¹⁹

However, farms that produce the most food per hectare do not have space for much nature. They usually produce, rather than remove, greenhouse gases. To have a countryside that achieves multiple goals, only some land can be used to maximise food production.

Efficiency and new technology reduces costs and increases sustainability

Regulation is needed to cut agricultural pollution, but indirect government support can encourage a shift to more sustainable practices.

Even on high yielding farms, fertiliser and pesticide inputs can be reduced, lowering costs for farmers while reducing greenhouse gas emissions, water and air pollution. On average, nitrogen fertiliser applied to wheat could be reduced by a quarter without affecting yield at all.²⁰ But many farmers do not have the technology or receive the impartial farm advice needed to do so.

Innovation focused match funding and grants can be used to invest in technologies like satellite monitoring, robotics and methane suppressants to increase sustainability. This model has worked well in horticulture, where most support is in the form of match funding for technology investment, rather than the area-based payments. Horticulture is one of the most profitable farming sectors and the least reliant on the area-based Basic Payment Scheme.



It is possible to reduce inputs for UK wheat production and maintain yields $^{\mbox{\tiny 21}}$

3

Support farmers to balance food production with nature

Three quarters of farmers rely on at least some public funding to stay in business.²² Until now, public policy has encouraged farmers and managers on moderately productive land to try to produce as much food as possible, using expensive inputs to make up for their land's limitations.

ELM should enable farmers to profit from environmental restoration as a business proposition, alongside food production. Given the diversity of land in this category, there will be a variety of possible approaches to balance food production and nature.

66

Three quarters of farmers rely on at least some public funding to stay in business."

Species that do well in nature-friendly farmed landscapes are different to those that thrive in wilder habitats, so both are needed." Environmental benefits may be created by lowering yields right across the farm, or by conventional production on some parts of the farm, combined with restoration of habitats, such as wetlands, scrub or woodland, on others. The nature benefits of low yield farming vary by region, but bird populations can be 2.5 times greater, and butterfly populations 1.5 times greater, on low yield compared to conventionally farmed land.²³

Importantly, the species that do well in nature-friendly farmed landscapes are different to those that thrive in wilder habitats, so both are needed to halt and reverse wildlife declines in the UK.

Policies in line with the land use framework we outline here should be designed to support this approach, so the majority of farmers, who manage land that is neither the most or the least productive, have a viable route to financial and environmental sustainability.



Populations of birds and butterflies are higher on low yield farmland²⁴

Restoring nature means eating differently

66

Eating less meat and more plants means less land is needed to feed the population." In the three compartment approach we describe, most nature restoration would happen on the least productive land, avoiding a trade-off with food production. But a nature strategy for not only ten (or even 20) per cent of the land would isolate people from the natural world. Producing most of our food with high yield farming on the most productive land enables the majority of land to provide space for nature and carbon removal through lower input farmed landscapes which provide high nature value.

This means lowering yields on moderately productive land: the higher the yield, the lower the amount of farmland nature.²⁵ To be of most value to nature, the yield of farmland in areas such as The Cotswolds and the Low Weald would have to be reduced by 31 per cent and ten per cent respectively.²⁶ These are manageable reductions but, unlike on the least productive land, lowering yields on moderate productivity land creates a trade-off with food production. This trade-off can be reconciled by shifting to a lower carbon diet that requires less land.

In practice, this means eating less meat. Meat production is inefficient: for every single calorie and gramme of protein we consume of beef or lamb, the animal must be fed 100 calories and 25-33 grammes of protein.²⁷ Eating less meat and more plants means less land is needed to feed the population. This means there will be more space for nature restoration and low yield farming, while keeping the same level of calories and protein in our diet.

If diets do not change, the space for low input, farmed landscapes shrinks. To meet all the UK's environmental and social goals and eat as much meat and dairy as we do today, at least a third of land would have to be farmed at very high yields, and only a minority could produce food in ways that are better for nature. The National Food Strategy proposed a 30 per cent reduction in meat consumption by 2032, while the Climate Change Committee has called for a 20 per cent reduction in both meat and dairy consumption by 2030.²⁸ Reductions of this order would free up more space for nature, with greater reductions seeing almost all land either farmed in ways that make space for nature or used to restore natural habitats.²⁹

Meat consumption determines how much land needs to be farmed at high or low yields



66

The National Food Strategy proposed a 30 per cent reduction in meat consumption by 2032."



What the Land Use Framework should do

66

Unlike a top down plan, farmers and land managers would retain control and choice." Adopting a three compartment approach in the Land Use Framework would enable the government to meet its food production, nature and climate goals simultaneously. It should:

Design a spatially explicit Land Use Framework that steers ELM and ecosystem service markets

The framework will not work if it does not shape land managers' decisions. Because farming and forestry are largely exempt from the land use planning system, the main means by which the framework can influence (but not determine) land managers' decisions is in setting out how and where ELM budgets will be spent, and how and where the government expects private carbon and nature markets to fund changes in how land is used.

This must be spatially explicit: payments to support low yield farming and semi-natural habitats will be more cost effective if directed to moderate and low yielding land. Doing this would limit trade-offs with food production, which the government has an interest in ensuring.

Priority habitats and the parts of the country that are best at storing carbon or growing new woodland are already mapped. A framework that sets out the approximate spatial extent of the changes needed to meet the government's nature and carbon goals would help farmers, landowners and investors understand the opportunities available from these new income sources. There should be a commitment that government funding and ecosystem markets would make these changes economically viable for farmers.

Unlike a top down plan, farmers and land managers would retain control and choice. For example, while intuition suggests farmers on the worst soils would switch to

Most farmers would find it is most profitable to work with the grain of the land." environmental delivery, some are able to turn a profit from high value, low volume food production sold directly to the consumer today. They may choose to continue with this business model, eschewing nature and carbon payments, or they may choose only to make small changes in exchange for smaller payments. Conversely, some farmers on the highest yielding land in the fens may choose to give up farming, accepting a lower income in exchange for managing a new wetland, providing other wildlife, utility and recreational benefits for which they can charge. Farmers on moderately productive land might still choose to compete on food production alone, and some would succeed. But, in general, most farmers would find it is most profitable to work with the grain of the land and, therefore, the framework.

The land use framework we have outlined would connect public funding from ELM and private funding from ecosystem markets to the long term climate and nature outcomes that the public wants and that the government has legal obligations to achieve.

Spend a third of the ELM budget on Landscape Recovery

Landscape Recovery is the arm of ELM expected to deliver disproportionately positive benefits for nature per pound spent. Allocating a third of the £2.4 billion ELM budget to this large scale habitat restoration would, on its own, increase bird populations by half and cut greenhouse gas emissions by more than half that required across the whole sector. Currently, only two per cent of the ELM budget is available for Landscape Recovery despite strong demand for it from farmers: the pilot has had over three times more applicants than the government has said it will fund.³⁰

Target innovation to minimise inputs on the most productive land

It is possible to reduce inputs while maintaining yields, reducing costs to farmers, as well as pressures on the environment. The Department for Environment, Food and Rural Affairs (Defra) should set a target to increase nutrient efficiency on English farms to lower fertiliser use, and spend its innovation fund on new technology and farm advice to help farmers achieve this target. To reduce greenhouse gas emissions further, Defra should fund methane suppressants in livestock farming, as New Zealand has already done.³¹ Appropriate funding for research and development, as well as grants and match funding investments for roll-out, should accompany these targets.

Accelerate the Local Nature Recovery scheme to give farmers on moderately productive land financial certainty

The withdrawal of the Basic Payment Scheme during the agricultural transition will leave many farmers on moderately productive land facing a financial loss. These farmers could have a viable business by combining income from food production with payments for environmental goods. The Local Nature Recovery scheme is the arm of ELM best suited to this opportunity. But the government has delayed its roll-out. Instead, it has attempted to abate the financial turmoil this brings many farmers by increasing the payment rates on Mid-Tier Countryside Stewardship Scheme agreements by 30 per cent.³² However, this does little to help farmers plan for long term viability, since these agreements only last five years. Rather than perpetuate a scheme that pays for many actions that result in very little environmental benefit, the government should give farmers certainty by accelerating the roll-out of the new Local Nature Recovery scheme, enabling them to combine income from nature and climate benefits with food production.³³

66

Government should give farmers certainty by accelerating the roll-out of the new Local Nature Recovery scheme."

Endnotes

- 1 ONS, 31 March 2022, 'Final UK greenhouse gas emissions national statistics: 1990 to 2020'
- 2 DB Hayhow et al, 2019, *The state of nature 2019*
- 3 State of Nature Partnership, 2019, State of nature: a summary for the UK, RSPB
- 4 See, for example: YouGov poll carried out for Wildlife and Countryside Link between 21-24 January 2022, at: www.wcl.org.uk/ assets/uploads/img/files/YouGov_ nature_access_polling_ results_24.1.2022.xlsx
- 5 Adapted from: HMG, 2021, Net zero strategy: charts and tables (updated 5 April 2022)
- 6 National Food Strategy, 2021, *The plan*
- 7 Based on calories produced. See: National Food Strategy, 2021, *The plan*, p 235
- 8 National Food Strategy, 2021, *The plan*, p 102
- 9 National Food Strategy, 2021, *The plan*. England only figures have been scaled up to UK wide figures based on agricultural area in the respective countries.
- 10 Green Alliance analysis based on emissions data from N Poore and T Nemecek, 2018, 'Reducing food's environmental impacts through producers and consumers', Science, vol 360, pp 987-992; and sequestration data from T Bradfer-Laurence, et al, 2021, 'The potential contribution of terrestrial nature-based solutions to a national 'net zero' climate target', Journal of applied ecology, vol 58, pp 2,349-2,360. Total UK emissions from agriculture and land use are assumed to be 63 MtCO₂e per year based on: HMG, 2021, Net zero

strategy: charts and tables (updated 5 April 2022). We assume the area of restored habitat grows in line with the rate of habitat creation under the 'Widespread Engagement Scenario' of the Climate Change Committee's sixth carbon budget.

11 Green Alliance analysis based on: A Lamb. et al. 2019. 'The consequences of land sparing for birds in the United Kingdom', Journal of applied ecology, vol 56, issue 8, pp 1,870-1.881. We assumed 750,000 hectares of woodland, 600,000 hectares of upland bog and 400,000 hectares of other habitats were created on improved and unimproved grassland. We assumed that, by 2050, bird densities in these recently created habitats would reflect the population densities for those habitat types reported in A Lamb, et al, 2019, which is based on RSPB data. So, to estimate the population change for each species, we multiplied the area of each habitat (broadleaved woodland, upland bog and others) created by the difference in population density for each species in that habitat type versus the grassland habitat it replaced. We estimated the population size at 2050 by combining this change in population size with the anticipated change for each species (as reported in A Lamb, et al, 2019) predicted for 2050 in absence of any habitat creation. For each species, we calculated the estimated population size at 2050 as a proportion of the present day population size and then estimated the average change for all species by finding the arithmetic mean of these estimates.

12 Ibid

13 Defra, 11 January 2022, 'Farm accounts in England – dataset'

- 14 National Food Strategy, 2021, *The plan*
- All cost data includes adjustment for unpaid labour of the farmer, their spouse and unpaid business partners. Defra, 11 January 2022, 'Farm accounts in England datasets from 2015/16 to 2019/20
- 16 A survey of 700 farmers carried out by Farmers Weekly in 2018 found that farmers report working on average 65 hours a week, with some livestock farmers working in excess of 100 hours a week: Farmers Weekly, 28 September 2018, 'Fit2Farm: Hard work and long hours take toll on farmers', www.fwi. co.uk/farm-life/health-andwellbeing/fit2farm-farmers-weeklycampaign-to-improve-farmershealth#tabs-2. Average Farm Business Income for farms in 'less favoured areas' in the five years from 2015-2020 was £23,400: Defra, 11 January 2022, 'Historical farm accounts in England' datasets from 2015/16 to 2019/20. Assuming a 65 hour week, this gives an estimated average hourly pay of £6.92, compared to National Living Wage rates of £7.20 to £8.21 over the same period: www.gov.uk/nationalminimum-wage-rates
- 17 The National Food Strategy, 2021, The plan. This worked out how much would need to be paid per hectare to give a farmer managing a 50 hectare farm an income of £28,000 per year for restoring and maintaining semi-natural habitat such as woodland. All other data are from: Defra, 11 January 2022, 'Farm accounts in England datasets from 2015/16 to 2019/20.
- 18 National Food Strategy, 2020, *The Plan*

- 19 R Pywell et al, 2015, 'Wildlife-friendly farming increases crop yield: evidence for ecological intensification', *Proceedings of the Royal Society B: Biological Sciences*, vol 282, issue 1,816, no. 1740
- 20 Based on data from: *Our world in data*, 'Fertilizers', accessed 19 June 2022.
- 21 Ibid
- 22 Adapted from: National Food Strategy, 2021, *The evidence*. Data from: Defra, September 2019, *The future farming and environment evidence compendium*
- 23 Green Alliance analysis based on: T Finch et al, 2020, 'Evaluating spatially explicit sharing-sparing scenarios for multiple environmental outcomes', Journal of applied ecology, vol 58, issue 3, pp 655-666; T Finch, et al, 2020, Assessing the utility of land sharing and land sparing for birds, butterflies and ecosystem services in lowland England, Report to Natural England, ref no: NECR280, pp 1-73
- 24 Ibid
- 25 D Gabriel et al, 2013, 'Food production vs. biodiversity: comparing organic and conventional agriculture', *Journal of applied ecology*, vol 50, issue 2, pp 355-364
- 26 T Finch, et al, 2020, Assessing the utility of land sharing and land sparing for birds, butterflies and ecosystem services in lowland England, Report to Natural England, ref no: NECR280, pp 1-7
- 27 T Searchinger et al, 2019, Creating a sustainable food future: a menu of solutions to feed nearly 10 billion people by 2050, final report, p 73

- 28 National Food Strategy, 2021, *The plan;* Climate Change Committee, 2020, *The sixth carbon budget: the UK's path to net zero*
- 29 Based on analysis in: National Food Strategy, 2021, *The plan*
- 30 Yahoo News, 15 June 2022, 'Funding to rewild and restore landscapes 'essential', Government warned'
- 31 BBC News, 9 June 2022, 'Climate change: New Zealand's plan to tax cow and sheep burps'
- 32 Farmers Weekly, 6 January 2022, 'Countryside Stewardship payment rates rise by 30%'
- C Davey et al, 2010, 'Regional variation in the efficacy of Entry Level Stewardship in England', Agriculture, ecosystems and environment, vol 139, issues 1-2, pp 121-128

Green Alliance 18th Floor Millbank Tower 21-24 Millbank London SW1P 4QP

020 7233 7433 ga@green-alliance.org.uk

www.green-alliance.org.uk @GreenAllianceUK blog: www.greenallianceblog.org.uk