

Securing Natural Assets for the future

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"I expect you're keen to hear what effect it had on my health, this decision of mine to leave?

Well, no sooner had I left behind the oppressive atmosphere of the city and that reek of smoking cookers which pour out, along with a cloud of ashes, all the poisonous fumes they've accumulated in their interiors whenever they're started up, than I noticed the change in my condition at once.

You can imagine how much stronger I felt after reaching my vineyards! I fairly waded into my food – talk about animals just turned out on to spring grass! So by now I am quite my old self again.

That feeling of listlessness, being bodily ill at ease and mentally inefficient, didn't last. I'm beginning to get down to some whole-hearted work".

The journey here



- The National Ecosystem Assessment (2011)
- The Natural Environment White Paper (2011)
- The Natural Capital Committee's third State of Natural Capital report (2015)
- "...we pledge to be the first generation to leave the environment in a better state than we inherited it. That is why we shall produce a comprehensive **25 Year**Environment Plan that will chart how we will improve our environment" (2017)
- The 25 Year Environment Plan (2018)

The Plan is launched



"The environment is something personal to each of us, but it is also something which collectively we hold in trust for the next generation. And we have a responsibility to protect and enhance it"

Theresa May, 11 January 2018

Our vision

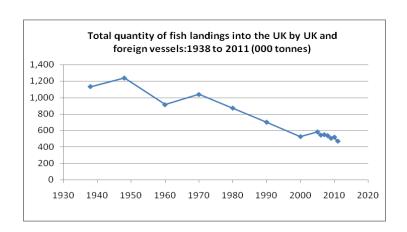


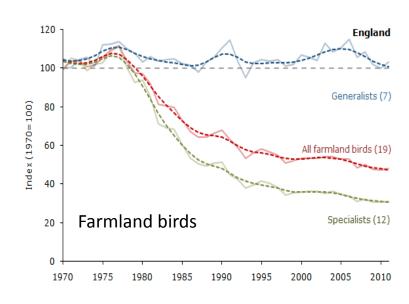
It is this Government's ambition to leave our environment in a better state than we found it.

The Plan will deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first.

What is happening to natural capital?

"Nearly two thirds of the services provided by nature to humankind were found to be in decline worldwide. In effect, the benefits reaped from our engineering of the planet have been achieved by running down natural capital assets". Millennium Assessment Board, 2005.





Pressures on natural capital are increasing

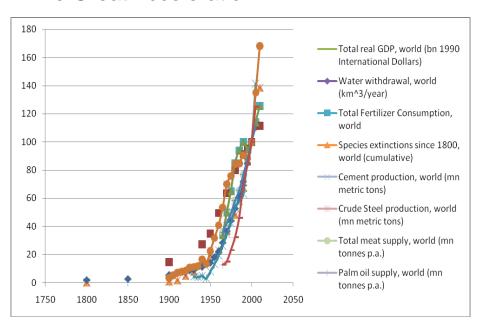
During the 20th century, humanity's interaction with and impact on global ecosystems was unprecedented:

"World population grew by a factor of 4 to more than 6 billion; industrial output increased by a multiple of 40 and the use of energy by 16; methane producing cattle populations grew in pace with the human population; fish catch increased by a multiple of 35; and carbon and sulphur dioxide emissions by a factor of 10".

Dasgupta (2007).

These pressures are accelerating in the 21st Century.

The Great Acceleration



What distinguishes the recent past (from 1950 onwards) is an abrupt change in the pressures on the environment. Such is the nature and scale of change that the last 60 years have been labelled the 'Great Acceleration'

Natural Capital Committee

The Committee is an independent advisory body to Government, with expertise in the fields of economics, natural and social sciences, accounting, statistics, data, technical and both local and national delivery.



Dieter Helm (Chair)



Melanie Austen



Colin Mayer



Chris Collins



Kathy Willis



Ian Bateman



Paul Leinster



Diane Coyle

The Plan aims to embed natural capital thinking

A natural capital approach

Natural capital is a valuable tool that can be applied domestically and globally to understand, prioritise and ensure environmental outcomes are properly valued. This can help drive environmental stewardship beyond government, so that business and citizens play their part in making better decisions to improve the environment; thereby supporting wellbeing and a strong economy that works for everyone.



We can use this consistent approach to underpin the whole environmental policy framework, from data and tools through to regulation.

Our 25-year goals

We will achieve:

- Clean air
- Clean and plentiful water
- · Thriving plants and wildlife
- Reduced risk of harm from environmental hazards such as flooding and drought
- Using resources from nature more sustainably and efficiently
- Enhanced beauty, heritage and engagement with the natural environment

We will manage pressures on the environment by:

- Mitigating and adapting to climate change
- Minimising waste
- Managing exposure to chemicals
- Enhancing biosecurity



Our policies will focus on:

- Using and managing land sustainably
- Recovering nature and enhancing the beauty of landscapes
- Connecting people with the environment to improve health and wellbeing
- Increasing resource efficiency, and reducing pollution and waste
- Securing clean, productive and biologically diverse seas and oceans
- Protecting and improving the global environment

The actions we will take

Chapter 1: Using and managing land sustainably

1. Embedding an 'environmental net gain' principle for development, including housing and infrastructure

Making sure that existing requirements for net gain for biodiversity in national planning policy are strengthened, including consulting on whether they should be mandated alongside any exemptions that

Working with interested parties to reduce costs to developers by expanding the net gain approaches used for wildlife to also include wider natural capital benefits such as flood protection, recreation and improved water and air quality - streamlining environmental process, whilst achieving net environmental

Working with interested parties to improve and expand the range of tools and guidance that support biodiversity net gain approaches, including through the future incorporation of natural capital measures Working with MHCLG and development professionals to explore ways in which design can contribute to environmental improvements, leading to better places in which to live and work and a reduced environmental footprint.

Producing stronger new standards for green infrastructure.

Exploring ways in which national spatial data and strategies could support and improve the benefits achieved through environmental net gain.

Exploring the potential for district protected species licensing to be expanded and include more species, delivering better outcomes for wildlife and a more streamlined process for development. Exploring, through ongoing MHCLG-led reforms of developer contributions, how tariffs could be used to steer development towards the least environmentally damaging areas and to secure investment in natural capital.

Determining appropriate locations to pilot a revolving land bank for rural areas.

2. Improving how we manage and incentivise land management

Working with land managers and others to consider the role of a new environmental land management scheme that encourages broad participation and secures environmental improvements. Retaining and further improving targeted support for more complex environmental improvements,

Exploring new and innovative funding and delivery mechanisms as part of a new environmental land management system. These may include private payments for eco-system services, reverse auctions and concernation coverants

i. Introducing now farming rules for wate

backed up by specialist advice.

Enforcing regulations for new farming rules for water from April 2018.

Reviewing the progress of the new rules after three years.

Putting in place a robust framework to limit inputs of nitrogen-rich fertilisers such as manures, slurries and chemicals to economically efficient levels, and make sure they are stored and applied safely. Introducing clear rules, advice and, if appropriate, financial support.

Working with industry to encourage the use of lowemissions fertiliser, and reviewing the levels of takeup using data from the British Fertiliser Practice Survey.

. Protocting crops while reducing the environmental impact of posticides

Ensuring that the regulation of pesticides continues to develop with scientific knowledge and is robust and fit for purpose, so as to protect people and the environment. We will maintain this direction after

Putting Integrated Pest Management (IPM) at the heart of a holistic approach, by developing and implementing policies that encourage and support sustainable crop protection with the minimum use of pesticides.

Reviewing the UK National Action Plan for the Sustainable Use of Pesticides in 2018. Supporting further restrictions on neonicotinoid pesticides, in line with scientific evidence. Any continuing use should be limited and permitted only where the environmental risks are shown to be very

3. Improving soil health and restoring and protecting our peatlands

Working with the industry to update the 2001 guidance on crop establishment and optimal tillage Defra will invest at least £200,000 to help develop soil health metrics and test them on farms across

We will investigate the potential for research and monitoring to give us a clearer picture of how soil health supports our wider environment goals.

ii. Rostaring vulnorable poatlands and onding poat use in harticultural praducts by 2031 Announcement of successful bids for the peatland grant scheme in February 2018, with funding made available in April.

Publishing an England Peat Strategy in late 2018.

Continuing to jointly fund research with the industry to overcome the barriers to peat replacement in commercial horticulture. This will report in 2020.

Continuing to support the industry as it puts the Responsible Sourcing Scheme for Growing Media into practice.

4. Focusing on woodland to maximise its many benefits

Working with landowners, farmers, key stakeholders and local people to identify and target areas most suitable for and likely to benefit most from woodland creation

Supporting Community Forests so that they can play a leading role in urban tree planting, both as part of the Northern Forest and in wider partnerships to bring trees and green infrastructure to towns and cities across England.

Promoting the Northern Forest as a key contributor to the 'Northern Powerhouse' initiative i. Supporting largers cale woodland creation

Designing a new woodland creation grant scheme, involving landowners, farmers and keu forestru stakeholders in the process. We want landowners to plant trees on their marginal land, while

Exploring how this new grant scheme could specifically incentivise larger scale afforestation to meet carbon goals and wider environmental benefits at a landscape scale.

With BEIS and MHCLG, working with stakeholders and the Cumbria catchment pioneer, engaging with Local Enterprise Partnerships to identify suitable areas for large scale woodland creation, and promoting Forestry Investment Zones to attract community, commercial and landowner investors. Working with our partners to develop new public/private partnership models of investment for research people a year in schools' visits, and will double this figure.

into the healthy environment, including for research on plant and tree health. Working with industry and supporting Grown in Britain to increase home grown timber used in England in construction.

Working with the Tree Champion and the Forestry Commission to design and develop a future grant scheme aimed at larger scale afforestation to meet carbon reduction goals and wider environmental benefits.

Asking the Tree Champion to draw on the Mackinnon review of forestry in Scotland.

5. Reducing risks from flooding and coastal erosion

. Expanding the use of natural flood managements olution

Learning from the £15m Natural Flood Management funding to develop our knowledge, identifying and

promoting practical solutions for local implementation. Putting in place mare surtainable drainage sy

Amending Planning Practice Guidance to clarify construction and ongoing maintenance arrangements for SuDS in new developments, tightening links with planning guidance for water quality and biodiversity. Considering changes to the National Planning Policy Framework and Building Regulations in the longer term to encourage SuDS

Improving existing arrangements for managing surface water flooding, and the outcomes delivered by Lead Local Flood Authorities and other risk management authorities, including water companies

. Making 'at-rick' proportion more recilient to flooding

Supporting an industry-owned voluntary code of practice to promote consumer and business confidence in measures to reduce the impact of flooding on buildings, and on those who live and work in

Chapter 2: Recovering nature and enhancing the beauty of landscapes 1. Protecting and recovering nature

Working with our partners to learn lessons from the existing strategy, Biodiversity 2020, in developing our new strategy.

Investigating how we roll out a Nature Recovery Network which will provide an additional 500,000 hectares of wildlife habitat building on other plans for landscape-scale recovery for peatland. woodlands and natural flood management.

Considering how landscapescale restoration of wildflowerrich grassland, meadows and heathlands could be part of the Nature Recovery Network to provide better access for people alongside improved habitat for pollinating insects.

Considering delivery options for the Nature Recovery Network over the next two years, as we develop and pilot our new environmental land management system and investigate the use of other new and innovative funding mechanisms.

Evaluating the wider economic and social benefits as we develop the network.

iii. Praviding appartunities for the reintraduction of native specie

Developing and consulting in 2018/19 on a code and best practice guidance for assessing the merits and risks of species reintroduction projects, taking account of their contribution to global and domestic conservation priorities, community engagement and wider social and economic impacts. Publishing the code and quidance to sit alongside existing international quidelines to inform future funding and consenting decisions on reintroduction projects.

. Explaining haw to give individuals the change to deliver lasting conservation

Following the Law Commission report into conservation covenants, assessing the demand and potential for these to secure long-term benefits from investment in nature conservation and other environmental outcomes, as well as the need for safeguards

Working with landowners, conservation groups and other stakeholders we will review and take forward the Law Commission's proposals for a statutory scheme of conservation covenants in England.

Improving biorocurity to protect and converse nature

improve resilience of trees to withstand threats.

Developing plans to reduce the risk from all high priority pathways for invasive non-native species introduction into England

Working with partners to raise awareness of invasive nonnative species and the need for strong

Maintaining an alert system to detect high priority invasive nonnative species and implement contingency plans to rapidly eradicate them where feasible.

Engaging with industry as we develop proposals to drive improvements in animal health. We will work with the devolved administrations and stakeholders to develop policies. Publishing a Tree Health Resilience Plan later in 2018 to protect against tree pest and diseases and

Working with industry to place biosecurity at the centre of buying practices - including encouraging the development of a biosecure supply chain for woodland creation.

2. Conserving and enhancing natural beauty ouiouina National Parke and Aroas of Outstandina Natural B

Commissioning a 21st Century 'Hobhouse' Review of National Parks and AONBs

Working with National Park Authorities to continue to deliver the 8-Point Plan for National Parks 2016-2020. National Park Authorities have already met the target to engage directly with over 60,000 young

Working with National Park Authorities and AONB Partnerships and Conservation Boards to deliver environmental enhancement, including through demonstrator projects, and engaging with communities through their statutory management plans.

Identifying opportunities for environmental enhancement in all of England's 159 National Character Areas and monitoring indicators of our landscape's character and quality to improve landscapes for people, places and nature.

3. Respecting nature in how we use water

Making sure that water companies take a leading role in addressing unsustainable abstraction as part of the Water Industry National Environment Programme, due in March 2018.

Regulating all significant abstractions that have been historically exempt to make sure that they also play a part in protecting the water environment by 2022.

Updating ten abstraction licensing strategies by 2021 and all remaining strategies by 2027 to capture agreed solutions to environmental pressures in catchments.

Consulting in 2018 on a National Policy Statement for water resources that will streamline the planning process for new large infrastructure schemes, leading to net environmental benefits, as set out in the

Working with the water industry and its five-year business planning cycles to make sure it puts in place long-term strategies to increase resilience, and manage supply and demand (for further details, please see our strategic steer to Ofwat).

Working with the industry and the group led by the NGO Waterwise to improve water efficiency and customer involvement to explore the impact of introducing new water efficiency measures

Taking forward measures that will make significant water savings where practical and cost effective to

We will work with industry to determine appropriate targets for personal water consumption and the measures needed to achieve them.

Chapter 3: Connecting people with the environment to improve health 1. Helping people improve their health and wellbeing by using green spaces

Conridering how environmental therapies could be delivered through n

Considering how NHS mental health providers in England could work with environmental voluntary sector organisations to offer mental health therapies Sharing lessons learned from existing social prescribing programmes widely so others can adopt best

. Developing standardised tools for service providers to support the roll-out of social prescribing

across England. We will do this by seed-funding a project, led by The Conservation Volunteers and supported by NHS England.

Establishing a cross-government alliance on environment and health to design and oversee the "Natural

Environment for Health and Wellbeing' programme. Supporting the alliance to review evidence, develop tools and support local authorities, commissioners,

and professionals

2. Encouraging children to be close to nature, in and out of school

Developing a Nature Friendly Schools programme for schools in our most disadvantaged areas with input from stakeholders that can be opened to schools from autumn 2018. Supporting more pupil contact with local natural spe

Developing a programme to support schools and Pupil Referral Units in our most disadvantaged areas in establishing progressive programmes of nature contact for their pupils, which can be opened to schools from autumn 2019.

Supporting the expansion of school outreach activities delivered by community forests. Supporting a national expansion of care farming by 2022, trebling the number of places to 1.3m per year for children and adults in England.

3. Greening our towns and cities

Supporting the Parks Action Group in its work to help England's public parks and green spaces meet the needs of communities now and in the future.

Continuing our ground-breaking work with Exeter University to update the world-leading Outdoor Recreation Valuation Tool (ORVal) in 2018.

Establishing a cross-government project, led by Natural England, that reviews and updates existing standards for green infrastructure by summer 2019.

Supporting Local Authorities to assess green infrastructure provision against these new standards. Working with the Ministry of Housing. Communities and Local Government to see how our commitments on green infrastructure can be incorporated into national planning guidance and policy.

Continuing to work with stakeholders to develop and implement a programme to plant one million trees in England's towns and cities by 2022.

Working with stakeholders to develop and implement a manual for local authorities and other urban treeplanting organisations to shape their procurement and maintenance practices for urban trees. Introduce new requirements to ensure councils properly consult if they are considering removing street

4. Making 2019 a Year of Action for the environment

Holping children and young people from all backgrounds to engage with nature and

In partnership with Step Up to Serve, supporting the 2019 #iwill environment-themed year, with design input from young people.

Evaluating progress in increasing young people's environmental social action, including #iwill campaign activity in 2019, and sharing lessons to sustain good practice. At the same time, exploring with youth sector partners the potential for piloting a natural environment

programme with youth groups that encourages use of natural environments through social action. This would aim to reach more young people from disadvantaged backgrounds.

Drawing together targeted activities to make it easier for people to get involved in improving the natural world and spread the word about environmental issues.

Working with partners from the business and voluntary sectors to make these activities happen. Scoping out an evidence-based behaviour change strategy to enable further actions by individuals, communities, businesses and government beyond 2019.

Chapter 4: Increasing resource efficiency and reducing pollution and 1. Maximising resource efficiency and minimising environmental impacts at end of

Publishing a new Resources and Waste strategy in 2018 aimed at making the UK a world leader in resource efficiency. It will set out our approach to reducing waste, promoting markets for secondary materials, incentivising producers to design better products and how we can better manage materials at

the end of life by targeting environmental impacts. . Achieving zero avoidable plartic warte by the end of 2042 Publishing a new Resources and Waste strategy in 2018 aimed at making the UK a world leader in

resource efficiency. It will set out our approach to reducing waste, promoting markets for secondary materials, incentivising producers to design better products and how we can better manage materials at the end of life by targeting environmental impacts.

1. At the production stage, we will encourage producers to take more responsibility for the environmental impacts of their products and rationalise the number of different types of plastic in use Working with industry to rationalise packaging formats and materials formats to make sure that more plastics can be easily recycled and the quality of collected recycled plastics is improved. Reforming our Producer Responsibility systems (including packaging waste regulations) to incentivise

producers to take greater responsibility for the environmental impacts of their products. This will include exploring extending producer responsibility requirements to plastic products not currently covered by our existing regimes to create a better market for recycled plastic. Building on our microbeads ban by exploring whether we can ban other problematic materials where suitable alternatives exist.

Analysis by Innovate UK shows that we have invested approximately €54m of public research and development money on plastics innovation in the past seven years but we must accelerate the pace of research to ensure a higher proportion of plastic is re-usable, recyclable and recycled and that British companies are at the forefront in developing this technology – a key ambition of the Clean Growth Grand Challenge. We will therefore work with BEIS, Innovate UK, Research Councils and industry to bring forward a bid for the next round of Industrial Strategy Challenge Fund awards later in 2018 to help develop a pipeline of new, more sustainable materials that will have a lower environmental impact. Encouraging the development of bio-based, biodegradable and environmentally-friendly plastic through the Bioeconomy Strategy.

2. At the consumption stage, we will reduce the amount of plastic in circulation through reducing demand for single-use plastic by:

Removing all consumer single use plastics from the central government estate offices. Extending uptake of the highly successful 5p plastic bag charge to small retailers, exploring whether

place to refill their bottles with water free of charge.

compulsory options are needed if voluntary agreements prove ineffective. Supporting water companies, high street retailers, coffee shops and transport hubs to offer new refill points for people to top-up water bottles for free in every major city and town in England. The water industry plans to create a nationwide network of refill points, and an app to help people find the nearest

Six key areas around which action will be focused

- Using and managing land sustainably (chapter 1).
- Recovering nature and enhancing the beauty of landscapes (chapter 2).
- Connecting people with the environment to improve health and wellbeing (chapter 3).
- Increasing resource efficiency, and reducing pollution and waste (chapter 4).
- Securing clean, productive and biologically diverse seas and oceans (chapter 5).
- Protecting and improving the global environment (chapter 6)

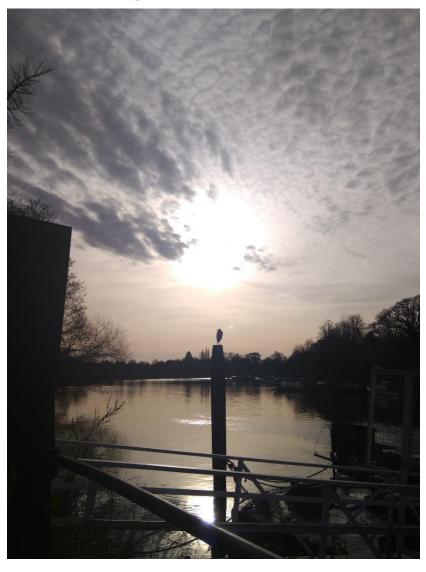
The 25 Year Environment Plan

Using and managing land sustainably

- Embedding an 'environmental net gain' principle for development, including housing and infrastructure
- Improving how we manage and incentivise land management including designing and delivering a new environmental land management system, introducing new farming rules for water, working with farmers to use fertilisers efficiently and protecting crops while reducing the environmental impact of pesticides
- Improving soil health by developing better information on soil health, restoring and protecting our peatlands by restoring vulnerable peatlands and ending peat use in horticultural products by 2030.
- Focusing on woodland to maximise its many benefits by supporting the development of a new Northern Forest and larger scale woodland creation and appointing a national Tree Champion
- Reducing risks from flooding and coastal erosion by expanding the use of natural flood management solutions, putting in place more sustainable drainage systems and making 'at-risk' properties more resilient to flooding



Recovering nature and enhancing the beauty of landscapes



- Protecting and recovering nature by publishing a strategy for nature, developing a Nature Recovery Network, providing opportunities for the reintroduction of native species, exploring how to give individuals the chance to deliver lasting conservation and improving biosecurity to protect and conserve nature
- Conserving and enhancing natural beauty by reviewing National Parks and Areas of Outstanding Natural Beauty
- Respecting nature in how we use water by reforming our approach to water abstraction and increasing water supply and incentivising greater water efficiency and less personal use

Connecting people with the environment to improve health and wellbeing

- Helping people improve their health and wellbeing using green spaces by considering how environmental therapies could be delivered through mental health services and promoting health and wellbeing through the natural environment
- Encouraging children to be close to nature, in and out of school by helping primary schools create nature-friendly grounds and supporting more pupil contact with local natural spaces
- Making 2019 a Year of Action for the environment by helping children and young people from all backgrounds to engage with nature and improve the environment and supporting the 2019 Year of Green Action



Increasing resource efficiency, and reducing pollution and waste

Maximising resource efficiency and minimising environmental impacts at end of life by achieving zero avoidable plastic waste by the end of 2042, reducing food supply chain emissions and waste, reducing litter and littering, improving management of residual waste, cracking down on fly-tippers and waste criminal and reducing the impact of wastewater



Securing clean, healthy, productive and biologically diverse seas and oceans



Protecting and improving our global environment



- Providing international leadership and leading by example by tackling climate change and protecting and improving international biodiversity
- Helping developing nations protect and improve the environment, providing assistance and supporting disaster planning and protecting international forests and sustainable global agriculture
- Leaving a lighter footprint on the global environment by enhancing sustainability, protecting and managing risks from hazards and supporting zero-deforestation supply chains



Putting the plan into practice

- Consulting on setting up a new independent body to hold government to account and a new set of environmental principles to underpin policy-making.
- Developing a set of metrics to assess progress towards our 25-year goals.
- Refreshing the 25 Year Environment Plan regularly to ensure that collectively we are focusing on the right priorities, using the latest evidence, and delivering better value for money.
- Strengthening leadership and delivery through better local planning, more effective partnerships and learning from our four pioneer projects.
- Establishing a new green business council and exploring the potential for a natural environment impact fund.
- Work closely with a large range of stakeholders over the coming year to identify their contribution to the goals set out in this Plan.

