

# Global green giant?

A policy story

Patrick Hall and William Nicolle

 bright blue

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William was a Researcher at Bright Blue who focused on energy and environmental policy, and was part of the team whose work contributed to Bright Blue being shortlisted for the 2019 Think Tank of the year in the Prospect Magazine awards. Previously, he has also worked at British Gas as an Analyst. He holds a degree in Geography from the University of Oxford.

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## Advisory board

This report is part of our multi-year project on conservation. This project is guided by our Conservation Project Advisory Board. Members include:

- **The Rt Hon Lord Deben**, Chair, Committee on Climate Change
- **Julian Glover**, Associate Editor, Evening Standard, and Author, National Parks Review
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Membership of the advisory board does not necessarily mean endorsement of any policy ideas from Bright Blue, including in this report.

*“Never, no, never, did Nature say one  
thing, and Wisdom say another.”*

**Edmund Burke**

Third Letter on Regicide Peace, 1797



# Introduction

Nature is facing unparalleled threats, both domestically and internationally. The world is waking up to the clear, consistent and considerable scientific evidence that climate change is a deadly threat to the sustainability of human societies and the planet itself. But biodiversity decline, a related phenomenon, now also requires urgent global attention and action.

Biodiversity refers to the number, variety and variability of living organisms.<sup>1</sup> It has been gradually declining worldwide since at least 1970. The Living Planet Index has measured trends in 16,705 monitored populations of 4,005 vertebrate species from 1970 to 2014, finding a 60% overall decline in vertebrate population sizes.<sup>2</sup>

The UK's *State of Nature 2019* report, published by the National Biodiversity Network Trust, is sober reading.<sup>3</sup> The average number of individuals per species has declined by 13% since 1970 in the UK across both terrestrial and freshwater species. Not only are species decreasing in abundance, but so too are their habitats: since 1970 there has been a 5% decrease in the average distribution of over 6,000 species, referring to the number of sites where species can typically be found.

Internationally, the state of biodiversity is even more worrying. A recent report reviewed fifteen thousand scientific and government sources of information, the largest ever of its kind.<sup>4</sup> What it showed was that nature is declining globally at rates unprecedented in human history. The average abundance of native species in most land-based habitats has fallen by at least 20% from original levels.<sup>5</sup> Whole groups of animals and plants face the increased risk of extinction, with at least 25% of all the animals and plants assessed by the International Union for the Conservation of Nature being threatened with extinction.<sup>6</sup>

There are many drivers of reduced biodiversity. Changes in land and sea use. Over fishing and hunting. Pollution. Invasive alien species. And, yes, climate change.<sup>7</sup>

There are reasons to be hopeful though. Across the world, funding for, interest in and projects on 'conservation' are plentiful. Conservation refers to the protection and restoration of places, species and habitats. The World Conservation Strategy states that it has three core elements: the maintenance of ecological processes and natural life support systems; the preservation of genetic diversity; and, prioritising the sustainable use of species and ecosystems.<sup>8</sup>

The UK is a world leader in climate change mitigation, most recently shown through the UK being the first major economy to adopt a legal net zero greenhouse gas emissions target by 2050.<sup>9</sup> But, there is a need and an opportunity to do the same for biodiversity – to become a global green giant on conservation. To do this, we need new and ambitious conservation policies, both at home and abroad.

2020 is a critical year for the UK to step up. Leaving the European Union means forging a new path for our place in the world. The UK Government will be prioritising the signing of new Free Trade Agreements (FTAs) with countries around the world. It will be critical to provide evidence and encouragement for the UK Government to enhance environment standards through them, especially in regards to conservation, in a context where there will be strong incentives and voices for diluting such standards.

There will be two major international conferences this year to create change around the world.

First, in October 2020, China is to play host to the 15th meeting of the Conference of the Parties (COP15) to the Convention on Biological Diversity (CBD) – a multilateral legally-binding treaty that focuses on three main areas; the conservation of biodiversity; sustainable use of biodiversity; and, the equitable sharing of the benefits arising from the use of genetic resources.<sup>10</sup>

It is hoped and anticipated that a post-2020 global biodiversity framework will be established, which will set the international conservation agenda for the next decade.

Second, in November 2020, the UK is playing host to the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties 26 (COP26) along with Italy.

Through both, the UK has a chance to develop its partnership with China,

approaching biodiversity and climate change from an aligned perspective. Furthermore, the UK is presented with a unique opportunity to become both an international climate and biodiversity leader in 2020 and beyond.

Indeed, climate change and the decline in global biodiversity are inextricably linked.<sup>11</sup> Climate change can impact on biodiversity and vice versa in many ways. Although the direct impacts of climate change on biodiversity can be difficult to gauge, often it interacts with other extinction drivers to accelerate the rate of decline in biodiversity. For instance, a changing climate results in changes in land use through the planting of different crops or shifts in agricultural and livestock practices, intensifying and adding pressures on species.<sup>12</sup> The Intergovernmental Panel on Climate Change's (IPCC) predicts there will be global crop expansion in the decades ahead – due to both higher demand for agricultural products and climate change making some farmland becoming less productive. This will mean large and further declines in biodiversity.<sup>13</sup> Tackling climate change is therefore an essential component of reducing biodiversity loss.<sup>14</sup>

Admittedly, the new Conservative Government is making environmental policy, and conservation efforts in particular, a priority. Indeed, conservation should be central to conservatism. Preserving what is good in the world for future generations is a deep-seated, noble sentiment that conservatives want to nurture and encourage. The good life that conservatives want to build – with prosperity, good health, knowledge and beauty – depends on nature. Preserving the environment is often framed as restricting economic growth or human freedom. But, really, saving nature is absolutely essential for achieving both these goals.

This report is a story. A story of what the UK could do to bolster its domestic and international conservation efforts, especially in advance of and at the two major international conferences in 2020.

And there was a story behind this story. This work is a cumulation of many months of exploration, of consultation, and of thinking. To help the development of our ideas, we used six core research methods:

- **Literature review.** An extensive literature review of existing UK and international evidence to inform the reasoning behind our recommendations.
- **Stakeholder consultation.** Extensive consultation with academics, politicians, civil servants, opinion formers, campaigners, and representatives from different sectors.
- **Call for written evidence.** We put out an invitation for expert individuals

- and organisations to submit written evidence. We received 14 submissions. We have published the submissions we received in the annex of this report.
- **Expert working groups.** We established four expert working groups to brainstorm policy ideas on four main topics: rural; urban; marine; and, international. These working groups were chaired by Lord Inglewood (rural), Rebecca Pow MP (urban), Lord Zac Goldsmith (marine), and Ben Caldecott (international). Members of the working groups included industry professionals, NGO representatives, academics, and centre-right and independent decision makers and opinion formers. Each working group met three times in total over a year, meaning we conducted 12 working groups in total to inform the development of our policy ideas for this report.
  - **Essay collection.** We commissioned and produced an expert essay collection, entitled Conservation Nation,<sup>15</sup> which unearthed policy ideas that influenced those in this report.
  - **Conservation Advisory Board.** We hosted a special meeting of our Conservation Advisory Board to get feedback on an initial draft of this report.

The policy story does not have all the answers. It provides some original solutions in five key areas.

There are many credible ideas created and promoted by other expert individuals and organisations. We do not repeat them here. But the government should of course consider and, where relevant, implement them. Our job as a think tank is to provide original ideas to complement the exciting thinking – from people in the public, private and third sectors – that will help the UK Government in this crucial year for global conservation.

We do not try to cover every possible priority for conservation. Instead, we focus on five keys areas, which we believe are of critical importance and which the UK Government is strongly interested in.

These five keys are the chapters of this policy story:

- Chapter One outlines how to build a **green and pleasant land**, focussing on trees, wildlife protection, land management, R&D and farming practices, and water management;
- Chapter Two examines how to **end the plastic scourge**, considering how to reform both consumer and producer behaviour;
- Chapter Three explores how to better **protect our marine environments**,

- suggesting in particular how to create more sustainable fishing;
- Chapter Four analyses what to do next to **eliminate the illegal wildlife trade**, focussing on the partnerships and technology that we need;
- Chapter Five looks at how the UK can be a **global green giant**, ensuring we lead by example and use our power and prosperity to drive positive change across the planet.



|

A green and pleasant land

The UK is blessed with a beautiful array of natural landscapes and habitats, from native woodlands to inland and coastal waterways, upland moorlands and rolling grassy fields. Protecting and enhancing these natural assets should be a priority. But the UK's rural landscape faces several threats.

The health of UK soil has deteriorated through damaging farming practices and pesticide use.<sup>16</sup>

The number of pollinator species has fallen over the last 50 years, with a strong downwards trend since the 1980s, despite pollination playing a vital role in food production, improving farm yields and crop quality.<sup>17</sup>

Only 44% of UK woodland is managed in a sustainable way.<sup>18</sup> Alarming, 56% of species in the UK are in decline and 15% under threat of extinction.<sup>19</sup>

This is likely to have a significant economic impact, as the ongoing government-commissioned Dasgupta Review will reveal.

Our green and pleasant land is, undoubtedly, under threat.

The UK has started to respond, however. The Government's Agriculture Bill seeks to replace rural payments once this country leaves the EU's Common Agricultural Policy (CAP), which has had well-known perverse outcomes such as foolishly distributing payments based, to a large extent, on land area. Instead, the UK Government will seek to have a greater focus on environmental outcomes by subsidising farmers, land managers and land owners in part on the basis of the ecosystem services they deliver.

The Government's Environment Bill – the UK's first overarching environmental framework legislation since 1995 – will introduce welcome policies.<sup>20</sup> A net biodiversity gain principle will be introduced as a condition of planning permission in England, where planners must submit a 'biodiversity gain plan' prior to

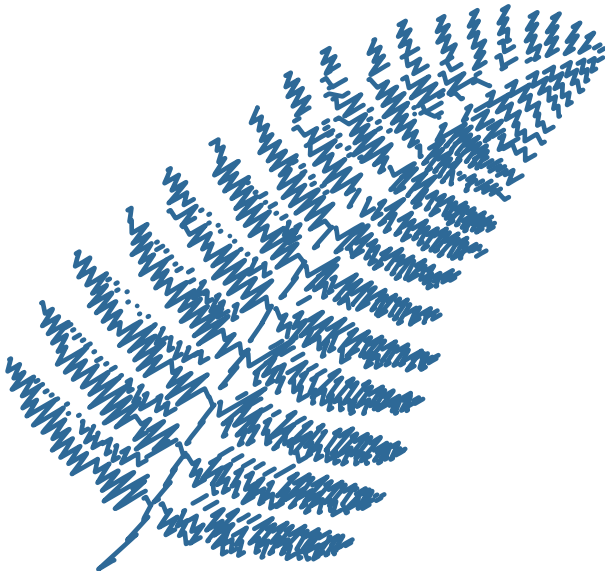
planning permission being granted.<sup>21</sup> A new Office of Environmental Protection (OEP) will be created, which will be a watchdog to enforce public authorities' compliance with environmental law in place of the European Commission after the UK fully leaves the EU.<sup>22</sup>

The Government is also currently undertaking the Dasgupta Review, which is investigating the economics of biodiversity.<sup>23</sup>

However, more can and needs to be done. Policy urgently needs to focus on restoring and improving biodiversity, which will also help with the critical challenge of mitigating climate change.

Careful rewilding. Stemming pollinator loss. Encouraging sustainable agriculture. These priorities would support both biodiversity gain and carbon sequestration.

The UK famously has a green and pleasant land. But it can and should aim for a greener, more pleasant land.





## Policies

Trees act as a shelter for wildlife, prevent soil erosion, increase soil fertility, purify our waterways, combat air pollution, provide timber, alleviate flood risk, deliver benefits for human mental health, and increase biodiversity.<sup>24</sup> The ability of trees to sequester carbon from the atmosphere, once all available cost-effective decarbonisation technologies have been deployed, also makes them one of the most effective tools in deeper decarbonisation.

The Committee on Climate Change (CCC) has suggested that afforestation efforts must double in the 2020s, and triple in the 2030s (to 27,000 hectares) in order to keep emission reductions on target with the UK's growing population.<sup>25</sup> The CCC cite the population growth forecast of an additional nine million people by 2050 as a need to combat increasing emissions.<sup>26</sup>

In response, in their 2019 election manifesto, the Conservative Party pledged to invest an additional £640 million in nature-based solutions as part of their newly unveiled Nature for Climate fund.<sup>27</sup> Through this, they aim to plant 30 million trees a year by 2025.<sup>28</sup>

However, predicted population growth rates can change over time, as can economic growth and its associated levels of emissions – particularly through future technologies which cannot be accounted for presently.

**We recommend regularly reviewing and, if necessary, updating, the UK's afforestation target so it is line with trends in population growth and decarbonisation. This review should be led by the CCC and the Forestry Commission, in consultation with other relevant organisations, on a five-yearly basis.**

The Forestry Commission is the government department responsible for expanding, protecting, and promoting woodlands. The Forestry Commission does not have a programme to engage young people in afforestation and conservation.

The Government's afforestation targets are an opportunity to engage young people in conservation. Currently, there are 3,448 state secondary schools in the UK.<sup>29</sup> Given the next generation will be the custodians of our environment, it is important that more young people are involved in learning about and

conducting conservation.

**We recommend that every state secondary school in the country should plant and name an area of trees to support the government's new afforestation target. The school should be granted funding from government to take a selection of pupils on a trip to learn about and do the tree-planting. The location of the tree planting should be decided in conjunction with Forestry Commission, who are responsible for tree-planting targets.**

Any insect that visits flowers can be considered a pollinator.<sup>30</sup> Pollinators facilitate the reproduction of plants. When pollinators eat pollen or nectar from a plant, pollen often sticks to their bodies, which in effect causes pollinators to spread the pollen when they travel to other plants.

The number of pollinators in the UK has been declining dramatically in recent decades.<sup>31</sup> Comparing indicators from 2016 with 1980 highlights a 31% decline in pollinators.<sup>32</sup> Long-term, only 14% of pollinator species have increased, whilst 44% have become less widespread.<sup>33</sup>

Declining pollinator populations is concerning, not least because they are essential to biodiversity and high quality food yield.<sup>34</sup>

There are a number of possible causes of declining pollinator populations. Possible causes include loss of habitat (flowering crops and nesting sites), biodiversity loss (through monocultural crops, larger fields, predation, less wildflower-rich grassland and less hedgerows), the use of agrochemicals and diseases.

However, there is a deficit of conclusive evidence about the extent of each of these causes, and whether any interactions exist between these causes.<sup>35</sup> Further research is needed for a greater understanding of the troubling decline in pollinators.<sup>36</sup> The UK Centre for Ecology and Hydrology is currently undertaking a major study which monitors the abundance of pollinators and how their populations are changing across Britain.<sup>37</sup>

The findings of this study could be reflected in the Environmental Land Management Scheme (ELMS) – the post-CAP rural payments system which the UK Government is introducing which will better reward farmers, land managers and land owners for environmental services and benefits. For example, farmers could be rewarded for pollinator-friendly practices such as reducing chemical use

or increasing agroforestry and the planting of wildflowers.

**We recommend that the findings of the UK Centre for Ecology and Hydrology's UK Pollinator Monitoring Scheme is reflected in the UK's new Environmental Land Management Scheme so that there is a gradual increase in rural payments to farmers, land managers and land owners for ecosystem services that are deemed to be specifically pollinator-friendly.**

The Government has outlined its intention for the reintroduction of lost species as part of its 25 Year Environment Plan. It has previously pledged to develop 'Nature Recovery Networks' (NRNs) for wildlife restoration.<sup>38</sup> Specifically, 500,000 hectares of wildlife habitats were due to be set aside for a NRN.<sup>39</sup>

NRNs identify where habitats and ecosystems are located, then links them via 'eco-corridors'.<sup>40</sup> The aim is that all ecosystems will be linked together through a NRN. For example, waterways could be fenced off from livestock to allow fauna to re-establish itself along the riverbank. These waterways would then form eco-corridors as part of the NRN. Motorway wildlife crossings are another example of how an NRN can operate; they remove motorways as a barrier for wildlife between ecosystems.

NRNs also facilitate climate adaptation by allowing wildlife to relocate from their habitats, which are changing due to climate change. Furthermore, they facilitate carbon capture through fauna restoration and afforestation, improve water quality by keeping livestock out of waterways, increase biodiversity through rewilding, and they can reduce the impact of flooding.<sup>41</sup>

However, the Government's plan for an NRN says little about the role that NRNs could play in improving biodiversity in urban areas. The Government has only detailed plans to build an NRN rurally, stating it could be made to "extend into towns and cities" without providing any concrete goals.<sup>42</sup>

In light of dwindling pollinator populations, urban areas offer opportunities for suitable, connected habitats to boost pollinator numbers. This is being done in Oslo, Norway, where a 'bee highway' has been built through the centre of the city. Moreover, in London, a seven-mile long wildflower corridor is being planted to provide habitat for insects.<sup>43</sup> By extending NRNs into urban areas, it also allows them to be more accessible to people and improve air quality.

**We recommend that every city in the UK, where appropriate, include an urban nature corridor as part of the UK's new national NRN.**

Green Belts are designated pieces of land that surround urban areas which restrict development. Their purpose is to constrain urban sprawl as well as prevent the merger of towns, protect the countryside, and preserve the natural environment.<sup>44</sup>

Presently, 12.5% of England's land area is classified as Green Belt land.<sup>45</sup> This has decreased by 0.3% in the period of 2017 to 2018.<sup>46</sup> As the population grows and demand for housing increases along with it, there have been calls for Green Belt land to be opened up for development. However, there are concerns about the environmental impact on Green Belt land if it was to be opened up to developers.

Unbeknownst to many, most privately owned Green Belt land is intensively farmed, therefore having a negative environmental value.<sup>47</sup> Green Belt land which is low-quality – that is, land which has already been built on, been left derelict, or brownfield areas within the Green Belt – should be declassified and development permitted.<sup>48</sup> After declassifying low-quality land and developing one million homes, only 3.9% of the Green Belt would be developed.<sup>49</sup> With the rise in eco-homes, development is no longer synonymous with environmental degradation, particularly if it is accompanied by the planting of more trees or the creation of nature trails.

The Environment Bill will introduce a legal obligation on developers to ensure that there is a biodiversity gain when compared to pre-development levels. Defra has stipulated that this biodiversity gain would be set at a 10% increase in habitat value for wildlife.<sup>50</sup> So development with at least this level of net biodiversity gain could both improve biodiversity and increase the housing supply, as well as increasing the number of people living close to the Green Belt.

**We recommend that development restrictions on low-value Green Belt land be relaxed in some areas only if a more ambitious net biodiversity gain obligation is placed on developers than the proposed 10% increase in habitat value for wildlife post-development.**

By funding research and development (R&D) in agriculture, there is the potential to create more innovative farming techniques which have less environmental impact than conventional methods.

'Precision farming' is an example of an alternative farming practice that has both greater environmental sustainability and increased productivity than conventional farming practices.<sup>51</sup> Precision farming aims to measure soil fertility, more effectively manage pest control, and provide better insights for making land management decisions.<sup>52</sup> For example, it includes better and up-to-date monitoring of weather forecasts and irrigation patterns in order to apply an appropriate level of irrigation, so as to avoid over-application or under-application of water to crops. Precision farming depends on both appropriate technology and the gathering and analysis of data. Technology such as GPS guidance of machinery and variable fertilizer rates according to the inherent fertility measured for individual areas of soil are now commonplace, and there is more to be achieved.

Following this, revolutionary change is in the offing with robotics and artificial intelligence (AI). Small agricultural robots will replace most large machinery in the future, with data-gathering and non-chemical weed control models already in the prototype stage. The environmental benefits of low soil impact, high-precision, chemical-free technology will be dramatic. By greatly increasing efficiency and productivity while reducing or removing the environmental impacts of conventional farming, robotics and AI are likely to lead to 'land-saving' and the return of more marginal land to wildlife conservation.

So too with vertical farming, which involves producing foods (fruit, vegetables and herbs) in stacked trays in an enclosed, possibly high-rise building using a combination of reflected natural light and artificial lighting. Vertical farming has the potential to increase crop yield five times over when compared to traditional farming methods, as well as reducing pesticide use and environmental impact due to its enclosed environment.<sup>53</sup> By dramatically reducing the land area occupied per unit of production and by offering the ability to move food production into urban centres, vertical farming could also play a role in returning land to wildlife.

Marker Assisted Selection (MAS) is a practical innovation for improving quantitative traits in living organisms. MAS works by selecting a trait of interest (such as DNA variation) which is linked to a positive outcome (such as disease resistance) and using this to inform the selective breeding process of a living organism. Notably, MAS has missed out on UK R&D funding in the shadow of further research into genetic modification techniques.<sup>54</sup>

These are just some examples of new ways of farming that can have a lower biodiversity impact.

The Government does currently provide funding for agricultural equipment and

technology, for instance through the Countryside Productivity Small Grants Scheme.<sup>55</sup> However, proportionally, the UK's public and private expenditure on R&D is comparatively lower than the OECD's. Total R&D spending measured as a percentage of GDP in the UK was 1.66% in 2017, compared to 2.37% in the OECD.<sup>56</sup> The Government has set a target of R&D expenditure equating to 2.7% of GDP by 2027.<sup>57</sup>

If a private sector firm demonstrates that it has invested in and undertaken R&D, they are eligible for a tax credit from HMRC, receiving either a cash payment or reduction in corporation tax. In the Conservative Party's 2019 general election manifesto, there was a pledge to increase the tax credit rate for R&D to 13% in a bid to increase R&D.<sup>58</sup>

In 2017, less than 1% of tax credits claimed for R&D were from UK small-medium sized businesses in the agriculture sector.<sup>59</sup> One of the reasons for such a low claim rate from the agricultural sector is due to farmers not being aware of the R&D tax credit, and not clear on what constitutes R&D.<sup>60</sup>

**We recommend the Government should raise the rate of R&D tax credits above 13% specifically for agriculture, paid for by a new 'Post-Brexit Agriculture Innovation Fund'. The Government should also increase awareness of available R&D tax credits by providing information to farmers, land managers and landowners every time they receive correspondence from government through the proposed new ELMS.**

Neonicotinoids are used as a form of pest control in agriculture. They resemble nicotine in structure.

Their use as a pesticide has a proven harmful effect on pollinating species such as bees, reducing pollination rates.<sup>61</sup> In the interest of addressing dwindling pollinator populations, the EU banned their use in 2018, which the UK supported.<sup>62</sup>

**We recommend that the UK upholds the EU-ban on neonicotinoids after the Brexit transition period.**

Conservation of water is essential because of future shortages. On current projections, many parts of the UK will face water shortages in 2050, particularly the South East.<sup>63</sup> This comes, in part, as a result of climate change – which will

affect the demand for water and the amount available – as well as increased demand through the UK's population growth, which is estimated to rise from 67 million to 75 million people by 2050.<sup>64</sup> Reducing the demand for and waste of water is therefore paramount.

Adding to these concerns around water conservation are also concerns surrounding water abstraction, particularly chalk streams. Chalk streams provide exceptionally pure water, and 85% of them globally are found in the UK.<sup>65</sup> They are also a habitat to wildlife, including invertebrate and fish species.<sup>66</sup> Over-abstraction is a threat to chalk streams as it poses a risk of water shortages for ecosystems.<sup>67</sup>

The Government's target for reducing everyone's daily water use is established at 130 litres per person by 2030;<sup>68</sup> presently, it is 149 litres per person per day. By modelling future water supply, Water Resources in the South East have stated that in one scenario, customers would need to reduce their daily water usage to 110 litres per day by 2050.<sup>69</sup> In other countries, water usage per person is already below this figure. By comparison, per person water usage in Denmark is 80 litres a day.<sup>70</sup>

Installing water efficient household fittings, such as a water efficient toilet or showerhead, can help bring down water consumption.<sup>71</sup> In other countries, such as Australia, water efficiency labels are placed on products, similar to energy efficiency labels. These labels show a star rating in terms of water efficiency and exist for products such as taps, toilets and appliances.<sup>72</sup> Through water efficiency labelling, houses and developments can then be retrofitted to a water efficiency standard. It also allows for minimum water efficiency standards to be imposed on all products sold in the UK. The UK does not currently have mandatory water efficiency labelling on products.

**We recommend mandatory water efficiency labelling on all new applicable products and the introduction of minimum product standards for water efficiency.**

Good water quality is essential for ecosystems and wildlife in waterways. Yet, often these waterways are polluted through surface water drains by pollutants originating from households and businesses.

Soaps, fuels, sewage and paint are all waste products that if drained down a surface water drain which is linked to a waterway, has adverse effects on water quality. For example, washing a vehicle in a driveway and allowing the cleaning substance to wash off into a surface water drain can contribute to waterway pollution.<sup>73</sup> In

extreme cases, pollutants in the water can kill aquatic life.<sup>74</sup>

London has very poor waterbody quality; in 2016, none of the waterbodies in London were classified as ‘good’ or ‘very good’.<sup>75</sup> Stopping pollutants being discharged down surface water drains will help in addressing this.<sup>76</sup>

Presently, sustainable drainage techniques are used, such as bio-retention, where natural features such as reed beds hold and treat surface water.<sup>77</sup> Yet, preventing pollutants entering drains in the first place is a more effective method of mitigating water pollution.

The Canal River Trust’s ‘Yellow Fish’ initiative is one example of preventing improper discharge of pollutants through greater public awareness. Bright yellow symbols of fish are painted next to surface water drains which are linked to waterways so that the public is aware not to discharge pollutants down these drains.<sup>78</sup> However, the Canal River Trust relies entirely on volunteers, and this initiative is not widespread.

**We recommend that all local authorities are obliged to put vibrant markings on surface water drains that are identified as being linked to waterways in order to raise public awareness and reduce the level of pollutant discharges down these drains.**

A major source of waterways pollution stems from misconnected drains.

There are two separate drainage systems which service much of Greater London. One which collects rainwater and drains it directly into our waterways, and another which takes waste water from households and businesses to water treatment plants before being drained into our waterways.<sup>79</sup> Misconnections between the different drainage systems results in untreated wastewater being discarded into waterways, causing water pollution.<sup>80</sup> This typically occurs as a result of incorrect plumbing.<sup>81</sup>

To rectify this, the Zoological Society of London has spearheaded an initiative called Outfall Safari, which utilises trained teams of volunteers equipped with geotagging technology to walk alongside London’s waterways identifying misconnected drains.<sup>82</sup>

These drains would be reported to Thames Water, and Thames Water would inform the property owners who would then rectify the misconnection.<sup>83</sup> Water companies do not have the ability to enforce this, as this power lies with Local



Authorities.<sup>84</sup>

By rectifying misconnected drains, Thames Water has stopped the equivalent of 20 Olympic-sized swimming pools of pollution entering our waterways.

**We recommend that water companies be given the legal responsibility and authority to rectify misconnected drains, with their funding for this derived from their capital expenditure budgets, for approval by Ofwat.**

Non-flushable wet wipes make up over 90% of fatberg material.<sup>85</sup> Fatbergs are solid masses of fat, oil and non-flushable plastics that have been improperly discarded down the toilet, which accumulate in the sewage system.<sup>86</sup> Fatbergs block the sewerage system, sending untreated wastewater back to where it originated from.<sup>87</sup> Not only this, but when flushed down the toilet, wet wipes pollute waterways and oceans. River cleaning teams in London have discovered that hundreds of thousands of wet wipes have formed a riverbed beneath the Thames.<sup>88</sup> Wet wipes are currently one of the biggest contributors to river pollution, and do not break up easily since they are designed to be wet.<sup>89</sup> When they eventually do break up, wet wipes are ingested by aquatic life, causing suffocation, starvation and death.<sup>90</sup> For example, Asian clams (introduced into the UK in 1998) – which purify water by filtering one litre per hour – are ingesting synthetic fibres that are found in wet wipes.<sup>91</sup> To date, there has been no action from the government on addressing this.

**We recommend a ban on the sale of all non-flushable wet wipes.**

II

## Ending the plastic scourge



Plastic waste is a major threat to our natural environment.

It is ingested by animals but cannot be digested by them. Laboratory tests on the effects of ingesting plastic suggest it can lead to lower food uptakes, lower energy levels and, as a consequence, changes to basic bodily functions in animals.<sup>92</sup>

Plastic decomposes very slowly, poisoning soils.<sup>93</sup> Plastics in our soils is bad news because of its broadly toxic nature.<sup>94</sup> Plastic can release dangerous chemicals into surrounding soil, which can make its way into the groundwater, redistributing toxins into waterways and ecosystems.<sup>95</sup> Research has shown that plastic pollution can affect the life cycle of bacteria.<sup>96</sup>

It is estimated that of all ocean litter, around 70% is plastic.<sup>97</sup> Around two thirds of fish stocks show signs of plastic ingestion.<sup>98</sup> One hundred thousand marine creatures die every year from entanglement in plastic objects like nets and bags that can cause death from suffocation due to a creature not being able to swim, or through deep lacerations.<sup>99</sup>

As of 2015, approximately 6.3 billion tonnes of plastic pollution has been produced globally, of which roughly 9% has been recycled, 12% incinerated, and the rest has either accumulated in landfill or littered our natural environment.<sup>100</sup>

The UK is estimated to consume five million tonnes of plastic per annum, and demand for plastic is expected to increase.<sup>101</sup>

The UK Government recently committed to eliminating avoidable plastic waste by the end of 2042.<sup>102</sup> To assist in achieving this, the Government has introduced policies such as a landfill tax, charges on single-use plastic carrier bags, and a plastic waste recovery note (PRN) scheme, all with relative success.<sup>103</sup>

The UK is taking some welcome action on plastic. Through the Environment Bill, the Government will be introducing a levy on packaging that is made of

less than 30% recycled plastic material, banning the export of plastic waste to non-OECD countries, and introducing producer responsibility schemes for most waste types, such as electronics, textiles, and plastics.<sup>104</sup> Further, the Government is introducing a 'deposit return scheme' in England, Wales and Northern Ireland, where consumers will be charged a deposit on all drinks containers that is refunded upon the containers deposit in a designated bin. This is intended to drive up recycling rates of all drinks containers, including plastic bottles.<sup>105</sup>

However, as demand for plastic grows in this country and across the world,<sup>106</sup> the UK Government need to be ambitious. There are three major priorities. Reduce the demand for and supply of non-essential and hard-to-recycle plastics. Encourage more responsible disposing of plastics at home and abroad. And, clean our natural environment of existing plastic pollution.



## Policies

Non-recyclable black plastic is frequently used for packaging food because it masks product imperfections and makes products appear more vibrant due to the colour contrast.<sup>107</sup> Black plastic is non-recyclable because near infra-red recycling assortment technology is unable to detect the carbon black pigments found in the majority of conventional black plastic packaging.<sup>108</sup>

As it cannot be sorted, rather than being recycled, black plastic typically ends up being disposed in landfill or incinerated.

There are alternatives to non-recyclable black plastic such as fibre-based packaging, biodegradable plastic or even simply using conventional plastic of a non-black variety. Given alternatives exist, it is difficult to justify the use of non-recyclable black plastic purely on cosmetic grounds. Many large retailers – including Waitrose,<sup>109</sup> Aldi<sup>110</sup> and Lidl<sup>111</sup> – are already taking an industry lead to eliminate non-recyclable black plastic from their packaging.

**We recommend a ban on non-recyclable black plastic as soon as is feasibly possible.**

We need to build a more ‘circular economy’ – in which materials at the end of their service life are recycled and reused to maximise their value. To do this, more products need to be made from recycled content.

The UK Government has announced a range of measures to incentivise producers to use recycled content. The 2018 *Waste and Resources Strategy* introduced a framework for ensuring that producers bear the full net cost of managing end-of-life products, as well as a system of modulated fees to encourage sustainable product design.<sup>112</sup>

Most significant, a tax on plastics packaging with less than 30% recycled content was announced in the Autumn Budget in 2018, coming into effect in April 2020.<sup>113</sup> The UK Plastics Pact, launched in 2018, is a collaborative business initiative that aims for an average of 30% recycled content across all plastic packaging by 2025.<sup>114</sup>

There is scope to be more ambitious. The Netherlands, for example, has ‘The Plastic Pact NL’ scheme, which sets a recycled content goal of 35%.<sup>115</sup>

**We recommend that the UK's plastic packaging tax threshold for recycled content should be set at 35% from 30% as soon as feasible, and this threshold should increase if viable on an annual basis thereafter.**

In 2019, 1.5 billion 'bags for life' were sold.<sup>116</sup> Bags for life are stronger plastic carrier bags designed to be reused, unlike conventional single-use plastic bags, which retailers apply a 5p charge on.

As they are thick, 'bags for life' are made of more plastic and subsequently must be reused at least four times in order to have the same carbon footprint as a conventional single-use plastic carrier bag.<sup>117</sup> However, they are being used as a disposable option by many consumers, meaning that their environmental impact is worse than conventional plastic bags.<sup>118</sup>

Currently, bags for life cost 10p. In the Republic of Ireland however, they set the price for bags for life at 70 cents which resulted in a 90% reduction of consumer use of bags for life.<sup>119</sup>

**We recommend increasing the minimum charge for 'bags for life' to 70p as soon as possible. We would not, however, call for increasing the minimum charge for a single-use bag.**

With UK consumers going through an estimated 13 billion plastic drinks bottles a year and three billion of these being incinerated, sent to landfill or dumped, a deposit return scheme (DRS) has recently been suggested by the UK Government as a way to increase recycling rates and reduce plastic waste.<sup>120</sup>

A DRS for drink containers operates by requiring consumers to pay an upfront deposit that is included in the price of the drink that they purchase. This is redeemed when the container is returned at a designated location.

The Government recently concluded a consultation on introducing a DRS for glass bottles, polyethylene terephthalate (PET) and high-density polyethylene (HDPE) plastic bottles and steel or aluminium cans.<sup>121</sup> The overwhelming majority of submissions agreed that a DRS would be positive in tackling plastic waste, with strong support for a scheme that would include all types of drink containers – not just plastic containers.<sup>122</sup> However, Defra are still considering what type of drink containers would be included under a DRS, and have stated that further research

and another consultation will be undertaken in 2020 to determine this.<sup>123</sup>

Across Europe, ten countries have so far introduced a DRS with considerable success.<sup>124</sup> In Germany, 98% of all plastic drinks bottles are recycled, while the rates for Norway and the Netherlands stand at around 95%.<sup>125</sup> The average return rate achieved by international schemes with a deposit of \$0.10USD or more is 86.7%, far above the UK's current plastic drinks bottle recycling rate of 70%.<sup>126</sup>

Defra impact assessments estimate that a 15p deposit rate across all materials would incentivise an 85% return rate in the UK.<sup>127</sup> The UK Government proposes to introduce a DRS with a 15p charge, as outlined in the current Environment Bill.

It is still uncertain what model the Government will adopt regarding a DRS, and whether this will be financed by central or local government, or retailers themselves. In Scotland, any producer or retailer which sells drink containers covered by the scheme is responsible for providing a return point on their premises.<sup>128</sup> This is typically done through a privately-owned not-for-profit organisation.<sup>129</sup>

**We recommend that all producers and retailers across the UK which sell drink containers covered by a deposit return scheme be required to fund and operate a return point on their premises.**

At present, recycling for producers (that is, any company which handles over 50 tonnes of packaging with a turnover greater than £20 million) is enforced through the Package Recovery Note (PRN) system. Under this scheme, producers are required to ensure that a certain proportion of their output is recycled and provide evidence of this by buying tradable permits or 'recovery notes' from accredited reprocessors or exporters in the UK.<sup>130</sup>

There are concerns regarding the lack of transparency around the PRN system, specifically on how revenue from recovery notes is spent.<sup>131</sup> A report from the National Audit Office also raised questions about the true extent of recycling that takes place under the scheme.<sup>132</sup>

Admittedly, the Government's 2018 *Waste and Resources Strategy* acknowledges that the PRN system "does not sufficiently incentivise design for greater reuse" and that the system favours the export of packaging waste.<sup>133</sup>

The taxpayer, rather than companies, bear most of the costs of recycling plastic. In 2017, businesses paid £73 million towards the cost of recycling their plastic packaging

whereas it was estimated that English local authorities spent £700 million on collecting and sorting waste.<sup>134</sup> Seemingly, the PRN system is not consistent with the principle of Extended Producer Responsibility (EPR), as the burden of responsibility of dealing with plastic waste seemingly lies more with taxpayers than with producers.

Producer Responsibility Organisations (PROs) are an alternative to the PRN system. Instead of companies being responsible for their own packaging recycling, they would pay to delegate this responsibility to PROs, with this cost being internalised into their product prices. PROs can then be regulated and monitored for transparency in their recycling practices. Valpak is an example of a PRO already operating in the UK, providing transparent waste management services.<sup>135</sup>

**We recommend shifting away from the Packaging Recovery Note system and eventually requiring all producers to use Producer Responsibility Organisations to handle their recycling commitments.**

Littering is the incorrect disposal of smaller, one-off items such as a cigarette butt or dropping a crisp packet.

In England, fixed penalty notices issued by local authorities or the police for littering attract a fine between £50 and £80 – and up to £150 in Wales.<sup>136</sup>

Chemicals from waste that is not disposed of properly can negatively impact soil quality (both in rural and urban areas), create pest and rodent problems in urban areas, as well as affect water quality and block waterways if dumped in rivers, canals, or streams.

Cleaning litter from roadsides imposes millions of pounds in costs on taxpayers.<sup>137</sup> Between 2016 and 2017, the cost for local authorities of keeping streets and public spaces clean was £682 million, equivalent to £29 per household.<sup>138</sup>

Elsewhere in the world, cities are kept much cleaner thanks to stronger penalties for littering. In Calgary, littering attracts a fine between CA\$500-1,000 (£290-590), and up to CA\$750 (£440) for throwing a lit cigarette out of your vehicle window.<sup>139</sup> Littering in Singapore can attract a S\$2,000 (£1,140) fine for your first offence, followed by S\$4,000 and S\$10,000 (£2,270-5,680) for subsequent offences.<sup>140</sup>

In Wales, the fine for throwing litter out of your vehicle window is £2,500.<sup>141</sup> However, enforcing this penalty is proving difficult.<sup>142</sup>



**We recommend increasing fixed penalty notices to a minimum of £500 to individuals caught littering by local authorities or the police, with higher fines for repeat offenders.**

Fly tipping is the deliberate disposal or dumping of larger quantities of litter in a particular area where it is not permitted, such as non-licensed premises or private property.

At its very worst, if convicted in a Crown Court by local authorities or the Environment Agency, those prosecuted for major fly tipping can face an unlimited fine or up to five years imprisonment.<sup>143</sup>

From 2017 to 2018, English local authorities dealt with almost one million cases of fly tipping, two thirds of which was household waste.<sup>144</sup> Fly tipping has been on the rise since 2012, with the vast majority of cases occurring on highways.<sup>145</sup> Between 2017 and 2018, large scale cases of fly tipping cost local authorities £12.2 million in clearance fees.<sup>146</sup>

Current fines are clearly failing to deter individuals from fly-tipping. In their 2019 election manifesto, the Conservative Party pledged to increase penalties for fly-tipping.<sup>147</sup> However, the increase in fly-tipping may also be linked to charging at waste disposal sites. For example, Buckinghamshire County Council charges £20 to dispose of a boiler and £10 to get rid of items such as windows and doors.<sup>148</sup> However, prices do vary across different waste disposal sites.

**We recommend a government-backed study on the cost of fly-tipping enforcement and clean up compared to the cost of running free waste disposal sites where building/domestic waste can be disposed of responsibly. If economically viable, the government should remove the ability of local authorities to charge for the disposal of building/domestic waste at waste disposal sites.**

III

Protecting our marine  
environments



The biodiversity of the world's oceans and seas is in significant decline.<sup>149</sup> Human activities, particularly over-fishing, reduces the abundance of target species (marine life which is targeted to be caught) and genetic diversity, and has caused: commercial extinctions; imbalances in the food web; and, threatens some species which are caught as by-catch (marine life caught unintentionally whilst fishing for targeted species).

Protecting our oceans and seas is of fundamental importance. It is estimated that roughly a quarter of species on earth live in the oceans, and further still, up to 91% of ocean species remain undiscovered,<sup>150</sup> with around two thousand new marine species still discovered every year.<sup>151</sup> The world's oceans have absorbed about a third of all anthropogenic carbon emissions in the last two centuries, and are therefore important carbon sinks.<sup>152</sup>

Fisheries provide 15% of the global intake of animal protein that we eat, and phytoplankton – small algal creatures that the oceanic food chain depends upon – produce 50% of the oxygen we breathe.<sup>153</sup>

Nevertheless, it has been estimated that 92.6% of the world's oceans are not marine protected areas.<sup>154</sup> Ninety-three percent of the world's fish stocks are either fully exploited or over exploited by commercial fishing (60% and 33% respectively).<sup>155</sup>

Fishing practices are often unsustainable, unintentionally catching protected and vulnerable species, with too much bycatch.

Currently, fishing around the UK is governed by the EU's Common Fisheries Policy (CFP). The CFP treats national waters as shared resources, meaning any member state can access any other member state's national waters. The CFP has, historically, not encouraged sustainable fishing. Of all the Total Allowable Catches (TACs) – the maximum amount of a stock which can be caught each year split between EU member states – seven out of ten between 2001 and 2017 were set above scientific advice for maximum sustainable yields.<sup>156</sup> However, once we fully leave the EU after

the Brexit transition period, the UK has an opportunity to reset how it manages fishing around its shores.

The UK does not only need protect its own shores. There are many UK Overseas Territories (UKOTs) that the UK has international responsibility for managing. UKOTs are territories that, due to voting to stay under British administration or not being granted independence, are subject to the jurisdiction and sovereignty of the UK. There are fourteen UKOTs and most are self-governing, with the UK Government responsible for foreign relations and defence.<sup>157</sup>

Whilst not directly responsible for UKOT Exclusive Economic Zones (EEZ) – which are areas of ocean that a territory is responsible for and extend 200 nautical miles from a territory's coastline – the UK has a strong influence on UKOT conservation policy. And this is important, given the fact 94% of British endemic species live in the UKOTs.<sup>158</sup>

Progress is slowly but surely being made by the UK in marine conservation. Defra estimate that, of the 45 fish stocks that have been assessed, 31 are now fished at sustainable levels.<sup>159</sup>

The UK is obligated by international targets to protect at least 10% of its national waters with MPAs by 2020, under the Convention on Biological Diversity (CBD) 2010 'Aichi Biodiversity Targets'.<sup>160</sup> The latest data suggests that about a quarter of UK waters are protected by MPAs as of June 2019, surpassing this target.<sup>161</sup>

But we are still not compliant with the UN Sustainable Development Goal (SDG) 14.4 – to end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices, and implement a science-based management plan by 2020.<sup>162</sup> More ambitious policies, incentives and regulations are needed to protect our precious marine environments, both at home and abroad.



## Policies

At present, management of fish stocks which the UK fleet accesses around our shores is achieved mostly through a quota system. The CFP sets limits on the amount of certain commercial fish stocks that can be caught through maximum allowed tonnage ('Total Allowable Catches (TAC)') and these are allocated to member states, who then have the responsibility to distribute this amongst their respective national fleets.<sup>163</sup>

The maximum sustainable yield (MSY) in fishing policy is different to TAC. Based on scientific evidence, it sets a maximum amount of fish that fleets can take out of the sea without compromising the ability of fish populations to naturally regenerate their numbers.

The MSY approach has been widely accepted and adopted as an objective for fisheries management around the world. The United States, for example, officially uses the concept of MSY in the management of fisheries within its Exclusive Economic Zone (EEZ), which is the area no more than two hundred nautical miles from a country's coastal baseline.<sup>164</sup>

From 2020, EU member states, through the CFP, will have to bring all "commercial fishing pressures", referring to all fishing activity conducted with the purpose of making profit, in line with MSY values. Put simply, MSY will be applied to all harvested fish stocks from 2020 at an EU level.<sup>165</sup> If EU member states are found to exceed their quota, the European Commission can make deductions on future quotas.<sup>166</sup>

The UK Government recently stated that, once the UK leaves the EU's CFP, fishing quotas within its EEZ will be "based on the best available science" in order to restore stocks "at least to levels that can produce [maximum sustainable yield]".<sup>167</sup>

**We recommend that all fishing quotas pertaining to the UK's EEZ must be based on maximum sustainable yield by law.**

It is common practice in many countries to subsidise fishing fleets. But the act of subsidising the fishing industry is often criticised for inflating fleet sizes, thereby reducing the sustainability of fish stocks. As such, the elimination of fishing subsidies, which contribute to overfishing, is one of the UN's Sustainable Development Goals (SDGs).<sup>168</sup>

Under the CFP, the UK has been allocated €243.1 million in subsidies from 2014 to 2020, split by three funding streams: first, grants for projects (€145.6 million); second, for fisheries monitoring and assessment (€52.2 million); and, third, for control and enforcement of existing fisheries legislation (€45.2 million).

In truth, these CFP subsidies are largely used to help the fishing industry transition to more sustainable fishing and for coastal communities to diversify their economies.<sup>169</sup>

But, globally, fishing subsidies are generally used to artificially inflate fleet sizes. Some countries such as Taiwan, South Korea, and China have subsidised vessel and fuel costs to increase the distance from port that their fleets can operate in. This has contributed, in part, to the global area of ocean being fished increasing from 60% to 90% since 1950, but the total fish caught per kilometre travelled decreasing by 60% since 1953.<sup>170</sup>

**We recommend that the UK push for a new international agreement in the WTO that stipulates that future fishing subsidies will only be used for sustainability and livelihood support, and nothing else.**

‘Discards’ are fish that are caught that the boat does not have a quota for, so discards them.

Since 2013, the EU has gradually introduced a ‘landing obligation’, that requires fishermen to land all fish caught in an effort to reduce wasteful discards. From the start of 2019, all fish that have a TAC applying to them in the UK must be landed under the landing obligation, unless a specific exemption is granted.<sup>171</sup>

An alternative approach to TACs to ensure sustainable fishing is the ‘Days at Sea’ method. This limits the number of days that vessels can fish.

The UK Government recently committed to “consider a targeted scientific trial using an effort-based regime (‘Days at Sea’) in place of a quota regime for some low impact inshore fisheries.” The Government suggested that ‘Days at Sea’ is only appropriate to some “low impact, inshore fisheries”.<sup>172</sup>

Admittedly, there are problems with the ‘Days at Sea’ model. Fishing fleets might simply increase the amount they fish in the days they are allowed, which risks increasing the total amount of fish caught beyond sustainable levels originally set by quotas.<sup>173</sup> The ‘Days at Sea’ model can also incentivise the buying of more powerful boats, to maximise the capacity to catch stock on the permitted days.

There is another version of this ‘Days at Sea’ model. The ‘Kilowatt (kW) Days at Sea’ model limits the fishing of a vessel based on its capacity (measured in kW), as well as how many days at sea it is permitted.<sup>174</sup> This would reduce the incentive to buy more powerful boats that could lead to overfishing.

**We recommend the Government trial the ‘kW Days at Sea’ model as a fisheries management measure in future trials, alongside the ‘Days at Sea’ trials for low impact, inshore fisheries.**

Marine conservation efforts occur within a country’s territorial waters, which are defined as twelve nautical miles extending from the baseline of a nation’s coast, or in a country’s EEZ, which extends 200 nautical miles from the baseline of the coast. Both these areas are defined by the 1982 United Nations Convention on the Law of the Sea (UNCLOS).<sup>175</sup>

The ‘high seas’, which refers to any area outside of these two zones and covers two thirds of the ocean,<sup>176</sup> are free to any countries to conduct certain activities in: scientific research, fishing, navigation, overflight, and laying cables and pipeline.<sup>177</sup>

However, in 2018, members of the UN met to negotiate the first ever ‘High Seas Conservation Treaty’, which has resulted in draft text being published in May 2019.<sup>178</sup> Negotiations of this new treaty are occurring through four intergovernmental negotiating sessions, with the fourth expected in 2020.<sup>179</sup> The treaty will include how much of the high seas to protect as MPAs.

Existing MPAs cover about 1.2% of the high seas<sup>180</sup>, but a UN agreement endorses aiming for 10% of the world’s oceans to be protected by 2020.<sup>181</sup> More ambitiously, the UK, amongst other countries, have supported a goal of protecting 30% of the high seas with MPAs by 2030 in the new ‘High Seas Conservation Treaty’.<sup>182</sup>

Yet, only nearly a quarter of our domestic waters – including both territorial and EEZ water – are covered by MPAs.<sup>183</sup> This is notably lower than other EU member states, such as France and Belgium that have 45% and 36.7% of domestic waters covered by MPAs,<sup>184</sup> and it is inconsistent with our international aims.

**We recommend that the UK Government set a target of also protecting 30% of UK domestic waters as Marine Protected Areas by 2030.**

The UK Government is responsible for fourteen United Kingdom Overseas

Territories (UKOTs), which contain 94% of unique, endemic British species.<sup>185</sup> The protection of marine habitats in UKOTs primarily occurs through the ‘Blue Belt Programme’, which seeks to provide protection to over four million square kilometres of the UKOT marine environment.<sup>186</sup>

At present, however, it has achieved just over half that goal, through establishing Marine Protection Areas (MPAs), which are areas of ocean reserved by law of other means to protect part or all of the specified area.<sup>187</sup> Through the Blue Belt Programme, MPAs cover 2.2 million square kilometres in UKOTs, including in the British Indian Ocean Territory, Pitcairn, South Georgia and South Sandwich Islands, and Ascension Islands.

There are different types of MPAs, and the extent of protection they provide depends on what type they are.<sup>188</sup> Typically, MPAs will differ from each other on exactly what they protect (for example, the sea bed or fish near the surface), and how they protect it (for example, banning or regulating different fishing activities like the use of types of nets and bottom trawling).

The Joint Nature Conservation Committee, the government’s advisory committee, provides advice to government on all offshore MPAs, including what type of MPA and how much protection they should entail, such as the commercial activities which should be restricted within them.<sup>189</sup>

The Blue Belt Programme is supported by funding of £20 million up until 2020,<sup>190</sup> but there are no funding commitments for the Blue Belt Programme after 2020. The Government has said, in response to a report by the Environmental Audit Committee earlier in 2019, that it is “working with... delivery support partners to prepare the case for ongoing long-term support to those [UKOTs] who have engaged in the programme”.<sup>191</sup>

The Government has indicated that it is “looking very closely at specific areas of funding beyond 2020”, but has confirmed no details.<sup>192</sup> Given the clear evidence that properly managed MPAs have positive conservation benefits<sup>193</sup>, the Government should continue pushing to make good on their Blue Belt commitment to protect four million square kilometres of UKOT seas.

**We recommend the Government commit funding for the Blue Belt Programme at current levels each year beyond 2020 until the full goal of protecting four million square kilometres of UKOT ocean is met.**



MPAs are not all the same. They vary in terms of the protection they provide the marine environment.

The International Union for the Conservation of Nature (IUCN) has created a spectrum of MPAs. This ranges from the most protective ('strict nature reserve', with zones in which no fishing is allowed known as 'no take zones') to the least protective ('protected areas with sustainable use of natural resources').<sup>194</sup>

The UK is making good progress in protecting UKOTs marine areas through its 'Blue Belt Programme'. But some of the UK's MPAs are not as protected as they could be. According to the Worldwide Fund for Nature (WWF), most of these MPAs are not 'well managed.' Of all the MPAs in England's domestic waters – defined as those that are within England's EEZ – 92% are open to being bottom-trawled or worked by bottom-dredged gears, which is damaging for the sea bed and therefore at odds with the conservation purpose of these MPAs.<sup>195</sup>

Further, with respect to the MPA in the UKOT of South Georgia and the South Sandwich Islands, only 2% of this one million km<sup>2</sup> MPA meets the IUCN's international standard for a Category VI MPA – which aims to protect specific habitats or species – according to an IUCN assessment. This is despite South Georgia and the South Sandwich Islands claiming the whole area meets the standard.<sup>196</sup>

UK MPAs that are being supported through the 'Blue Belt Programme' need to meet a minimum criterion of protection. Admittedly, MPAs must balance conservation goals with socio-economic ones, such as livelihoods based on fishing. Of the IUCN's seven management categories for MPAs, category IV, or "Conservation Park Zones", allow for the conservation of whole marine areas with opportunities for "reasonable use and enjoyment, including limited extractive use".<sup>197</sup>

There has been no systematic review of all the UK's MPAs against the IUCN criteria for protected areas, but category IV should and can be the minimum benchmark for all MPAs for two reasons. First, it ensures that any activities that occur within the MPA cannot be at odds with conservation. Second, they permit 'reasonable' activities that MPAs need to achieve buy-in from locals, such as allowing recreational fishing for local residents. Any minimum standard should allow for some 'reasonable' activities or else the standard risks being too restrictive.<sup>198</sup> This does not mean that MPAs cannot also aim for more ambitious categories on the IUCN's scale, as they should where appropriate.

**We recommend that the Government ensure all existing and future MPAs, in the UK's domestic waters and in UKOTs, meet the IUCN's**

## IV MPA management category at the very least.

Bottom trawling is used to capture seafood living on the ocean floor. It commonly involves dropping a weighted net onto the ocean floor and dragging it, with the net being held open by metal 'doors'.<sup>199</sup>

Bottom trawling disturbs or destroys everything in its path, including rocks and coral reefs that are habitats for marine life.<sup>200</sup> Many maritime species not intended to be caught, such as seabird and turtles, are also caught and often do not survive.<sup>201</sup> Bottom trawling frequently contributes to overfishing and undersized catches, leading to marine life being discarded.<sup>202</sup>

Bans on bottom trawling are already in place in other countries such as New Zealand, Indonesia, and certain states of the United States.<sup>203</sup> Presently, there is not a ban on bottom trawling in UK MPAs.

### We recommend a ban on bottom trawling in all UK MPAs.

In 2009, the Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing was adopted as a United Nations agreement – the first ever binding international treaty that focuses specifically on illicit fishing.

In 2016, the Treaty was brought into force.

Countries party to the agreement are obliged to implement measures while managing ports under their control, with the aim of detecting illegal fishing, stopping illegally-caught fish from being offloaded and sold, and ensuring information on unscrupulous vessels is shared globally. This includes requiring foreign fishing vessels wishing to enter ports to request permission in advance, transmitting detailed information on their identities, activities, and the fish they have onboard.<sup>204</sup>

Landings can only happen at specially designated ports equipped for effective inspections. Ships suspected of being involved in illegal, unreported and unregulated (IUU) fishing can be denied entry into ports outright – or permitted to enter for inspection purposes only and refused permission to offload fish, refuel, or resupply.<sup>205</sup>

Vessels that are allowed into ports may be subject to inspections conducted according to a common set of standards. They will be required to prove that they are licensed to fish by the country whose flag they fly, and that they have the

necessary permissions from the countries in whose waters they operate.<sup>206</sup> If not, or if inspections turn up evidence of IUU fishing activity, vessels will be denied any further use of ports and reported as violators.<sup>207</sup>

Once a ship is denied access or inspections reveal problems, parties must communicate that information to the country under whose flag the vessel is registered and inform other treaty participants as well as portmasters in neighbouring countries.<sup>208</sup>

Whilst the U.S, Canada and the EU are signatories to this agreement, upon fully leaving the EU after the Brexit transition period, the UK will cease to be party to it.

**We recommend that the Government ratify the Port State Agreement and fully implement its provisions in the British Isles and overseas territories, as well as promote its ratification throughout the Commonwealth.**

# IV

## Eliminating the illegal wildlife trade



The illegal wildlife trade (IWT), the illicit trade in protected animals, is estimated to be worth up to £17 billion a year.<sup>209</sup> It is the world's fourth most profitable criminal enterprise.<sup>210</sup> It is often undertaken or supported by corrupt officials, criminal gangs, and even terrorist networks.<sup>211</sup>

The IWT consists of three main components: the illegal poaching and processing of animals and plants in their source country; the transportation of the goods to destination markets; and, demand for the goods in destination countries, typically in developed and East Asian countries.<sup>212</sup>

The IWT is focused on mammals, reptiles, corals, birds, bony fish and others, increasing the risk of extinction of these taxa.<sup>213</sup>

The UK has been very active in recent years in introducing new policies to thwart the IWT. In 2018, the UK hosted the Illegal Wildlife Trade Conference. And it has sought to close the end markets for the IWT through, for instance, public information campaigns on the harm buying endangered animal products does.<sup>214</sup> Also, in 2018, UK leadership on the IWT was demonstrated with the development and Royal Assent of the Ivory Act, which banned all dealings of items containing elephant ivory in the UK, as well as imports or exports to and from the UK.<sup>215</sup> The Government has pledged to spend £36 million between 2014 and 2021<sup>216</sup> through funds such as the Illegal Wildlife Trade Challenge Fund (IWTCF).<sup>217</sup> Late in 2019, the Government announced a new £220 million fund for saving endangered animals called the International Biodiversity Fund.<sup>218</sup> The UK also participates in information sharing schemes such as the European Union Trade in Wildlife Information Exchange (EU-TWIX) programme.

More can – and needs to – be done, however. As some regions of the world become wealthier, this risks increasing the demand for, and therefore the illegal trade in, products from endangered species.<sup>219</sup> The UK's exit from the EU also raises questions over our participation in different international information sharing schemes.

The UK needs to focus on three main areas: reducing demand for IWT products; increasing monitoring and enforcement against the perpetrators of IWT crimes; and, protecting endangered species in their own habitats.

## Policies

The National Wildlife Crime Unit (NWCU) exists to assist relevant authorities in the “prevention and detection of wildlife crime”<sup>220</sup>. The NWCU has been funded by Defra and the Home Office jointly, and current funding is confirmed at £272,000 per year until 2020. Defra also provide an extra £29,000 a year to the NWCU, specifically to tackle the online dimension to the illegal wildlife trade.<sup>221</sup> However, funding after 2020 is yet to be confirmed, despite the pivotal work the NWCU does to tackle the illegal wildlife trade.

**We recommend that Defra and the Home Office jointly commit to at least current levels of funding for the NWCU until at least 2030.**

EU member states are both transit countries – wherein IWT goods pass through – as well as end markets for IWT goods.

EU-TWIX is a major programme helping to tackle the global IWT.

EU-TWIX is an enforcement tool developed for use by European wildlife law enforcement officials which now connects over a thousand officials with a database containing over 55,000 wildlife-related seizure records from EU member states since 2000.<sup>222</sup> In 2015, the UK Government provided £50,000 for the EU-TWIX programme.<sup>223</sup>

After we fully leave the EU, there is a risk that the UK may no longer be party to the EU-TWIX programme, thereby losing access to the EU-TWIX database. This is vital to the UK’s role in tackling the global IWT and fully leaving the EU risks undoing the UK’s involvement in these programmes at an EU and international level.

**We recommend that the UK seeks to remain part of EU-TWIX after fully leaving the EU**

The US Magnitsky Act 2012 allows their government to sanction individuals implicated in gross human rights abuses through freezing their assets and banning them from entering the US.<sup>224</sup>

The UK passed its own version of this through an amendment to existing legislation, named the ‘Magnitsky Clause’. The Sanctions and Anti-Money Laundering Act 2018 includes “gross human rights violation” as a reason for imposing sanctions on someone or an entity. The type of sanction and authority to enact them is at the discretion of an appropriate minister.<sup>225</sup>

**We recommend that new amendments to existing legislation are introduced which would enable the UK Government to freeze UK-based assets of foreign citizens implicated in supporting the IWT, wildlife crime, and other forms of gross species and habitat destruction.**

The Royal Society recently identified five key areas in which science and technological innovation can aid in the fight against the IWT: risk profiling through interrogation of shipping documentation; smart shipping container technologies; optical recognition approaches to detect IWT at borders in documentation or track movements of poachers; development of biological and chemical identification in the field; and, environment isotope analysis to determine the geographical origins and age of organisms.<sup>226</sup>

The UK provides funding to support projects fighting the IWT through the Illegal Wildlife Trade Challenge Fund (IWTCF), managed by Defra. To date, over £23 million has been committed to 75 projects since the IWTCF was established in 2013.<sup>227</sup> However, of the 75 projects funded, only two projects had a technology focus on combatting the IWT, to which they received £420,000 in funding collectively.<sup>228</sup> Additional funding could be directed towards the R&D of emerging technologies. In particular, two important areas could be focused on. First, technological innovation of border control, to prevent IWT products reaching their end markets and being able to trace where they came from. Second, tackling the IWT at source through, for example, drones for ecosystem monitoring and law enforcement.<sup>229</sup>

The use of machine learning and AI to identify trade that is suspicious is a highly promising development. For instance, a project run by The Anderson Cabot Center for Ocean Life and the Roger Williams University have developed software that scans the shipping documents related to aquatic cargos, and flags suspicious shipments based on ‘learnt’ criteria from 30,000 previous shipments, examining characteristics such as weight and country of origin and destination.<sup>230</sup>

In 2017, the Government’s net expenditure on R&D into Science and

Technology Facilities – a Research Council as part of UK Research & Innovation – was £654 million.<sup>231</sup>

**We recommend that the Government increases its level of expenditure into the Science and Technology Facilities Research Council and earmarks a portion of these funds to be focused on emerging technologies such as machine learning and AI technologies to tackle IWT at borders and at their source.**

The IWT is prolific in many Commonwealth countries, particularly in Africa and Asia. In 2013, 23,145kg of ivory was removed from the black market in Kenya, whilst in the same year 343 poachers were killed in South Africa, and 31 elephants and 41 rhinos were poached in India.<sup>232</sup> Other Commonwealth countries, such as Mozambique, have issues regarding transparency as they release little information about poaching within their borders.<sup>233</sup>

The UK Government has made several commitments in recent years to increasing evidence sharing on the IWT with Commonwealth countries. For example, in 2015, the UK Government committed to working with “law enforcement agencies internationally to share information” through actions such as providing police operational support to Interpol’s ‘Project Predator’, a global enforcement initiative to protect tigers in the wild through intelligence and enforcement practice knowledge transfer.<sup>234</sup>

However, there is no formal framework for intelligence sharing between Commonwealth countries to address the high rates of IWT that occur in these countries. Collective Commonwealth declarations are made at the biennial Commonwealth Heads of Government Meeting (CHOGM).<sup>235</sup> Currently, the office of the UK Prime Minister is the Chair-in-Office, a position held by the leader of a Commonwealth country on a two year basis.<sup>236</sup>

**We recommend the UK, especially in the final months of being Chair-in-Office of the Commonwealth, to seek to improve evidence sharing between Commonwealth countries on IWT by advocating for and helping to build a Commonwealth version of the EU-TWIX scheme.**

In 2018, Department for International Development (DfID) and the Foreign Office jointly launched The Wildlife Financial Taskforce with the Duke of



Cambridge. This Taskforce seeks to find ways to better tackle criminal gangs facilitating IWT.

The Taskforce comprises representatives from 30 international banks and financial organisations, and aims to: increase the number of investigations and prosecutions relating to IWT; increase the use of sanctions against IWT related activity like freezing assets; improve domestic and international law enforcement cooperation to target global criminal networks; and, support “parallel financial investigations” into low level IWT actors to unravel wider criminal networks.<sup>237</sup>

Organisations on the Taskforce have committed to not facilitate or tolerate financial flows stemming from the IWT.<sup>238</sup> The Taskforce works alongside authorities in countries such as Kenya, Tanzania, Uganda, Botswana and Côte d’Ivoire to launch investigations, seize assets and train law enforcement in East and Southern African countries in order to tackle financial crimes associated with IWT.<sup>239</sup>

However, the Wildlife Financial Taskforce, at present, consists of financial organisations that have volunteered. In contrast, there is a compulsory statutory duty for some organisations to prevent slavery in their supply chains, created through the Modern Slavery Act.<sup>240</sup> This obligation applies to commercial organisations which have a turnover of £36 million or more.<sup>241</sup> A similar framework could be used for mandatory monitoring of financial flows that may stem from the IWT.

**We recommend that statutory duties be placed on organisations with an annual turnover of £36 million or more within the UK to monitor and prevent financial flows that could reasonably be related to the IWT.**

V

# A global green giant



Biodiversity decline and climate change are urgent and interlinked crises. They require an international response. Especially after the UK fully leaves the EU, this country should seek to become a global green policy giant to help tackle both crises, building on its international leadership on legislating to reduce greenhouse gas emissions and phasing out coal from the energy system.

In 2020, the UK is due to co-host the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties 26 (COP26), a summit attended by national ministers and leaders to negotiate how to combat climate change. Also in the Autumn of 2020, the Conference of Parties 15 (COP15) Convention on Biological Diversity (CBD) is being hosted in China, where ministers and world leaders will meet to review strategies to increase global biodiversity and consider new targets on biodiversity. Both are major opportunities for the UK Government to push for – and showcase – ambitious policies to tackle both biodiversity loss and climate change.

In the run up to COP26, the current Government is starting to show global leadership. At the 2019 UN General Assembly, it committed to increasing the amount of UK Overseas Development Assistance (ODA) spent on the climate crisis and biodiversity decline via a £1 billion innovation fund for decarbonisation and a £220 million fund to combat declining biodiversity.<sup>242</sup> More recently in their 2019 election manifesto, the Conservative Party pledged to use the UK's hosting of COP26 to encourage other countries to match the UK's doubling of International Climate Finance, as well as unveil a £500 million Blue Planet fund to support marine conservation in developing countries.<sup>243</sup>

Yet, more needs to be done. In recent decades, the UK has shown real leadership on climate change. Most recently, it was the first major economy to legislate for net zero emissions by 2050. The UK now needs to be equally as ambitious with policies to improve conservation.

## Policies

ODA is a term that refers to the total amount spent by the UK abroad as aid. The UK has a legal target of spending 0.7% of Gross National Income (GNI) on ODA.<sup>244</sup>

The vast majority of the ODA budget is spent through the Department for International Development (DFID), at 72% in 2017, but other government departments have increasingly administered a larger proportion of the annual budget since 2013.<sup>245</sup>

Historically, there has been a pitiful amount of UK ODA spent on global nature conservation. Government funding for global biodiversity conservation, including both bilateral (country-specific) and multilateral sources, averaged £75 million per annum between 2010 and 2013 – the last period for which formal government figures are available. This figure represents only 0.5% of the approximately £14 billion annual UK ODA budget.<sup>246</sup> Contrast this with Germany and the USA, which each provide on average around \$600-700 million per annum for global nature conservation, and it highlights the disparity between them and the UK on being a global green leader.<sup>247</sup>

The UK Government's recent one-off £1.3 billion ODA package for climate change and biodiversity included: £220 million for a new 'International Biodiversity Fund', to preserve the world's endangered species and habitats; and, a £100 million 'Biodiverse Landscapes Fund' to invest in the protection of mangroves and forests.<sup>248</sup> These are initial investments into the funds, with further funding likely to be unveiled in future.<sup>249</sup>

This is a good start, with more funding promised for biodiversity-focused development aid. But it is not enough to stem the loss of global biodiversity. This funding needs to be increased to at least £1 billion per year to finance a range of ambitious projects.

More broadly, to be a global leader on conservation, the UK should seek to be the country that proportionally spends the most on conservation ODA.

**We recommend the establishment of a new 'Global Nature Conservation Fund' of at least £1 billion per year from the existing, and future growth in, the UK ODA budget. This fund should be**

**hosted by the Department for Environment, Food and Rural Affairs (Defra) and announced at COP26. Also, the Government should set a target for the UK to be the biggest funder of global conservation efforts through ODA, in proportional terms, by a set date.**

DFID, the principle donor of UK Overseas Development Assistance (ODA), has been almost exclusively focused on poverty eradication at the expense of other Sustainable Development Goals (SDGs).<sup>250</sup> As part of the International Development Act 2002, DFID's focus of ODA has been 'poverty reduction' and 'sustainable development'.<sup>251</sup> However, ODA from DFID has overwhelmingly been concerned with the former focus and not the latter; only a small number of DFID staff focus on international biodiversity, marine or forestry conservation issues.<sup>252</sup>

The SDGs were developed in 2015 to replace the Millennium Development Goals (MDGs), particularly to include goals related to sustainability and protection on land, in water, and in combatting climate change. These goals were lacking in the MDGs.<sup>253</sup>

The SDGs includes goals on responsible consumption (SDG12 Responsible Consumption and Production), climate change (SDG13 Climate Action), marine biodiversity (SDG14 Life below Water), and terrestrial biodiversity (SDG15 Life on Land).<sup>254</sup>

The poorest developing countries with habitats and biodiversity of global or regional significance should be actively prioritised when receiving Official Development Assistance. This would not undermine poverty alleviation, as nature supports sustainable development and sustainable livelihood creation and poverty alleviation supports nature.

The International Development Act 2015 established the international aid expenditure target of 0.7% as a percentage of GNI on international aid, as well as requiring the International Development Secretary to provide a detailed report on international aid spending and its value for money.<sup>255</sup> The International Development Act 2002 outlines that the Secretary of State for International Development may provide "development assistance" or "humanitarian assistance".<sup>256</sup> Development assistance may be provided by the Secretary of State for International Development if "satisfied that the provision of the assistance is likely to contribute to a reduction in poverty".<sup>257</sup>

## **We recommend making biodiversity a key filter for the allocation and prioritisation of UK ODA funding via DFID.**

There would be little point increasing ODA allocations to global nature conservation on the one hand, while promoting short-term development that harms global nature on the other.

The principle of ‘Do no harm’ is used in humanitarian aid to prevent the impact of an organisation’s actions having a negative impact on affected populations.<sup>258</sup> By adopting a ‘do no harm’ principle in relation to global nature and sustainable development, the UK can ensure that its ODA assists in poverty alleviation whilst not having a negative impact on global nature conservation.

Government departments themselves are responsible for ODA expenditure, which must reflect the UK’s Aid Strategy and be consistent with “sustainable development” and “poverty reduction”, as outlined in the International Development Act 2002.<sup>259</sup> When signing off proposed ODA, the Treasury delegates authority for public expenditure, giving departments a pre-defined limit of ODA expenditure which does not require sign-off from Treasury.<sup>260</sup> ODA expenditure beyond the pre-defined limit or expenditure which is deemed novel will be subject to Treasury approval.<sup>261</sup>

The Independent Commission for Aid Impact (ICAI) is a commission independent of government which scrutinises all government department ODA and reports to Parliament via the International Development Committee.<sup>262</sup> ICAI operates in a transparent manner, holding the government to account for aid effectiveness and providing feedback to enhance the effectiveness of future ODA.<sup>263</sup>

**We recommend the adoption of a ‘do no harm’ policy in relation to global nature, such that any aid project that damages or destroys nature should not receive UK ODA. This ‘do no harm’ principle should be an assessment the government makes before signing off any new ODA funding – a ‘Nature Impact Assessment’ The Independent Commission for Aid Impact should determine in all of its evaluations whether any harm to global nature has been caused by any UK ODA supported projects.**

Despite the Government’s commitment under the CBD (Convention on Biological Diversity), an international legally-binding treaty on the conservation

and sustainable use of biodiversity, which requires the elimination of subsidies that are harmful to global biodiversity, the UK continues to subsidise biomass without considering the potential for perverse environmental outcomes.

Target 3 of the Aichi Biodiversity Targets states: “By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.”<sup>264</sup>

Consistent with Target 3, the UK Government’s recent 25 Year Environment Plan states that the UK will establish “appropriate mechanisms to screen policies and strategies for potential negative environmental effects overseas.”<sup>265</sup>

However, the UK provides subsidies for wood pellets sourced in the US. The evidence available does suggest that this is both harmful to the climate and has a negative ecological effect on areas where it is sourced.<sup>266</sup>

### **We recommend that the UK Government phases out all subsidies for the production of biomass.**

A Special Envoy is a diplomatic position, appointed by the Prime Minister, to engage with relevant representatives from other nations. It is not necessarily a ministerial position, but remains a high profile role and is important to the UK’s international efforts on certain issues.

Typically, an envoy is an expert in the field and helps to ensure the UK’s continuing role in international discussions. At present, Special Envoys exist for issues ranging from media freedom to gender equality. Examples of recent UK Special Envoys include gender equality, fintech, Yemen, Oman and for Preventing Sexual Violence in Conflict.<sup>267</sup>

Recently, the UN appointed the Former Governor of the Bank of England as the UN Special Envoy for Climate Action and Finance. For the UK specifically, the Government has a ‘special representative’ for Climate Change, but this is inside the UN. There is also the role of President of COP26, which is an important and high-profile role, that the UK Government has been keen to secure a suitably high-profile person for.<sup>268</sup>

**We recommend creating a new Special Envoy for Climate Change and Biodiversity, appointed by the Prime Minister. This role should be filled, and continued beyond 2020, by the President of COP26. The Special Envoy should seek to develop a strong partnership with China ahead of COP15 on the Convention on Biological Diversity (CBD) in October 2020 and COP26 UN Climate Change Conference in November 2020, to build arguments and alliances around tackling both biodiversity decline and climate change.**

Free Trade Agreements (FTAs) are agreements between countries that remove tariffs and other restrictions on goods traded between them.<sup>269</sup> With the UK in the process of fully leaving the EU, it will be negotiating FTAs with both the EU and non-EU countries.

With the UK now negotiating new FTAs, there is an opportunity to build in environmental safeguards as a condition of trade. Indeed, since 1990, there has been an increasing proportion of FTAs including environmental provisions, particularly between developed and developing countries ('North-South FTAs').<sup>270</sup> Provisions with a focus on combatting the IWT can also be included in the UKs post-Brexit FTAs.

For example, in the EU's FTA with Vietnam, both parties must "adopt and implement appropriate effective measures" which lead to a reduction in the IWT through initiatives such as "awareness raising campaigns, monitoring and enforcement measures".<sup>271</sup>

**We recommend that the Department for International Trade should ensure that all new Free Trade Agreements, where possible, include obligations to improve conservation efforts in partner countries, specifically efforts to tackle the illegal wildlife trade.**

With the UK fully leaving the EU, and the subsequent formation of new Free Trade Agreements (FTAs) with new countries, there is an opportunity to better tackle plastic waste in our oceans.

At present, the UK exports roughly two thirds of its plastic waste abroad because there is not enough capacity domestically to recycle all the waste that is collected.<sup>272</sup> But, if the plastic waste which is exported or imported is



‘contaminated’ – referring to the plastic waste containing other forms of waste or being of too poor quality to recycle – it is landfilled in the importer countries, rather than recycled.

A major issue with the current system of exporting the majority of our plastic waste is that much of the waste is contaminated, and therefore does not end up being recycled.

A further issue that has emerged in recent years is the widespread inappropriate disposing of contaminated waste, as many of the importer countries do not have capacity to clean or landfill all the contaminated waste they receive. As a consequence, much of it ends up littered in the natural environment, reflected in how China, Indonesia, the Philippines, Thailand, and Vietnam generate as much as 60% of plastic waste that enters the sea.<sup>273</sup>

In response to this issue, some foreign governments have taken action to regulate or ban the trade in waste. For instance, China, Indonesia and Thailand have all stopped or applied restrictions on importing waste from Western countries in the last few years.<sup>274</sup> The 2019 Conservative Party election manifesto promised to ban the UK exporting waste to non-OECD countries.

Some FTAs attempt to prevent the export of contaminated waste through certain provisions. For example, the North American Free Trade Agreement (NAFTA) includes a clause stating that there should be no “inconsistency” with the Basel Convention, a UN convention that regulates the transboundary movement of hazardous waste.<sup>275</sup> Moreover, the Japan-Mongolia FTA, signed in 2015, contains a provision for both countries to cooperate on “improving waste management and technology”.<sup>276</sup>

In May 2019, the Basel Convention was amended to include plastic waste within its framework, meaning signatories commit to being more transparent and managing waste more effectively.<sup>277</sup>

**We recommend that the UK Government seek to introduce clauses in all future FTAs committing the parties to sign and uphold the latest requirements on waste through the Basel Convention.**

Right now, six out of the 13 great whale species are considered endangered. As few as 300 North Atlantic right whales are left.<sup>278</sup>

In 1982, the International Whaling Commission (IWC) banned commercial whaling on all species in view of sustainability and depleting whale stocks.<sup>279</sup> Despite this, countries – particularly Japan, Norway, Russia, Iceland, Canada, and Denmark – have violated the IWC’s moratorium.<sup>280</sup>

In 2018, 1553 whales were hunted and killed.<sup>281</sup> Japan, one of the most egregious violators of the whaling ban, circumvents the ban by whaling under the guise of ‘scientific research’.<sup>282</sup> But non-lethal alternative techniques to scientific research do exist today, in a way they did not a few decades ago.<sup>283</sup>

**We recommend that the UK advocates for a complete international ban on all forms of whaling through the International Whaling Commission, with enforceable sanctions for countries which violate this.**

The Task Force for Climate-related Financial Disclosures (TCFD) promotes the need for financial actors to disclose risks related by climate change in their Environmental, Social and Governance (ESG) reports, which are annual reports many companies publish measuring their sustainability and societal impact.<sup>284</sup> Ultimately, these reports provide more detailed information on climate-related risks to stakeholders such as investors, lenders and insurers. Whilst it is voluntary, the TCFD aims to develop consistent standards on the disclosure of these climate risks.

However, changing ‘natural capital’ – which refers to the stock of natural assets including geology, soil, air, water and all living things<sup>285</sup> – also represents risks to financial actors.

Already, for instance, Yes Bank analyses and discloses how projects funded through its green bonds – a bond whose proceeds are used to fund environmentally-friendly projects – have positive as well as negative aspects. For solar energy, positive impacts are the generation of non-fossil fuel generated power. But there are some negative impacts on natural capital – such as changes in land use and habitat loss.<sup>286</sup>

The United Nations Environment Programme (UNEP)’s Natural Capital Finance Alliance (NCFA), launched in 2012, is a global initiative that seeks to promote the integration of natural capital considerations into financial products and services, as well as considerations of it into financial accounting, disclosure and reporting.<sup>287</sup>

Highlighting and reporting the risks posed to natural capital in financial disclosures would allow key stakeholders of financial actors – investors, lenders and insurers – to better understand their potential impacts on nature, and thereby be able to better seek ways to minimise the threats posed to natural capital associated with their activities.

**We recommend establishing a task force to promote and introduce standards on financial disclosures on natural capital for financial actors, similar to the TCFD.**

The EU's 'green public procurement criteria', developed since 2009, are very broad, including minimum standards to reduce the environmental impact of transport and cleaning products, purchasing eco-labelled products, and sourcing energy from renewable energy sources.<sup>288</sup>

Once we fully leave the EU however, the UK does not necessarily have to comply with green public procurement criteria. But, it is important that UK procurement rules include green principles. Currently, the Public Services (Social Value) Act 2012 states that authorities must consider "how what is proposed to be procured might improve the economic, social and environmental well-being of the relevant area".<sup>289</sup> The Social Value Act is only applicable to England, and in a limited context, to Wales.<sup>290</sup>

Beyond this, there is no UK-specific legislation regarding the environment and sustainability in public procurement. The UK needs to lead by example.

**We recommend that the UK should introduce new legislation that ensures all public sector organisations have to give regard to current green public procurement criteria established by the EU.**

Biosecurity is the protection of a population from biological or biochemical risks which could cause significant harm.

Mismanagement of biosecurity can result in significant disease outbreaks or a deliberate biological attack.<sup>291</sup> These can have serious health implications for humans, such as an outbreak of influenza or Ebola.<sup>292</sup>

Plant and animal disease outbreaks can have an economic impact, too. Between August 2000 and December 2017, plant and animal disease outbreaks cost the

UK Government up to £3 billion.<sup>293</sup>

In 2018, over 300 pests and diseases were intercepted at the border.<sup>294</sup> The UK Government has confirmed all EU biosecurity measures that pertain to information sharing, and strict checks on imports to the EU from non-EU countries, will be transposed into UK law.<sup>295</sup>

As a result of Brexit, the UK has the opportunity to ban imports of particular species that are deemed pests by the UK but not other EU member states, such as the tobacco whitefly or oak processionary moth.<sup>296</sup> Where the EU is slow in response to biosecurity threats, the UK can be nimbler. This would prevent a repeat of scenarios like the Spanish potato flea beetle, when it took the EU months to place restrictions on Spanish potatoes.<sup>297</sup> Additionally, Brexit means the UK is not at the mercy of the ‘weakest link’ – a member state which does not have stringent biosecurity checks at their borders.<sup>298</sup>

Nonetheless, there are several major EU intelligence sharing networks that the UK might lose access to once it fully leaves the bloc, such as the Animal Disease Notification System (ADNS), which obligates EU member states to disseminate information of new outbreaks within 24 hours, and the European Alien Species Notification System (EASIN NOTSYS), which is used to alert member states of new detections of species on the EU list of concern.<sup>299</sup>

**We recommend that after the Brexit transition period, the UK should seek to remain part of shared intelligence systems at an EU-level to minimise the increase in biosecurity risk posed by Brexit.**



Annex:  
Written evidence

**Evidence from Campaign to Protect Rural England**

[Click here to read the submission](#)

**Evidence from GM Freeze**

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**Evidence from Greenpeace**

[Click here to read the submission](#)

**Evidence from Nappy Alliance**

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**Evidence from National Trust**

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**Evidence from National Farmers' Union**

[Click here to read the submission](#)

**Evidence from The Royal Society for the Protection of Birds**

[Click here to read the submission](#)

**Evidence from Soil Association**

[Click here to read the submission](#)

**Evidence from Southern Environmental Law Center & National Wildlife Federation**

[Click here to read the submission](#)

**Evidence from Wildlife and Countryside Link**

[Click here to read the submission](#)

**Evidence from International Fund for Animal Welfare**

[Click here to read the submission](#)

**Evidence from The Wildlife Trusts**

[Click here to read the submission](#)

**Evidence from Sustrans**

[Click here to read the submission](#)

**Evidence from Woodland Trust**

[Click here to read the submission](#)

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The world is beginning to wake up to the fact that biodiversity is declining. Urgent global attention and action is required now. Climate change, overfishing, changes in land and sea use, and invasive alien species are all contributors to this. In the UK, we are witnessing the decline of species and their habitats.

The UK is a global leader on climate change, but now there is a need and opportunity to do the same for biodiversity – to become a global green giant on conservation. After many months of exploration, of consultation, and of thinking, this policy story provides a comprehensive set of recommendations to be used by the Government to bolster its agenda in making the UK a conservation nation.

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