

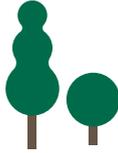
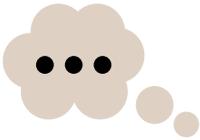
Thinking differently about our environment: a holistic approach to policy.

Edited by: Rebecca Pow MP and Mark Holmes

**CONSERVATIVE
ENVIRONMENT
NETWORK**

**Thinking differently
about our environment:
a holistic approach
to policy.**

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Conservative Environmentalism

Conservative Environmentalism sees the health and economic resilience of future society as partly rooted in decisions taken today. It accepts the environment within the purview of conservative politics. It favours decentralised solutions which harness the power of free markets, thereby aligning economic and environmental health. Where necessary, it asks governments to facilitate such markets. It reclaims the positive environmental track record of conservative governments around the world. Only a revived conservative focus on responsibility, innovation, sustainability and well-functioning markets will secure a stable society and healthy economy for present and future generations.

The Conservative Environment Network seeks to support conservatives in this agenda. I wish to thank all of the contributors to this pamphlet for their crucial and longstanding contributions to conservative environmentalism. It is worth singling out Rebecca Pow for a special mention, without whom this would not have happened. Her commitment to the environment and to the CEN's work is infectious and we are very grateful.

In his first speech as Secretary of State for the Environment, Michael Gove quoted Byron in how we should approach a new agricultural support scheme: "to love not man less, but nature more". This phrase has resonance for us as our environment is not a question of either or – but one of 'and both'. Sustainable approaches are mutually beneficial.

As a movement, we should be pushing to support communities, businesses and individuals as we seek to drive up standards and create long-term sustainable solutions to the pressing problems of our age. Business, government and communities all have an incredibly valuable role to play. Sustainability has to be at the heart of everything we do.

Conservatives have a golden opportunity to push for a new approach to our environment as we leave the European Union and begin to forge our own policy. This opportunity cannot be missed and I hope that the ideas outlined here get the hearing that they deserve.

Ben Goldsmith, Chairman, Conservative Environment Network
Mark Holmes, Interim Director

Rebecca Pow MP, Taunton Deane



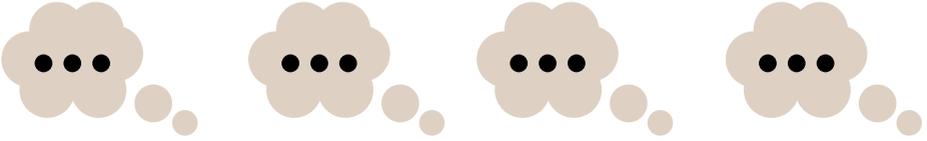
A holistic approach to thinking about our environment

Striving for a holistic approach to the future, where fairness prevails for everyone whatever their background or situation, is what we Conservatives should always fight to achieve. It is fundamental to who we are. However, we need to be more ambitious and be seen to have this at the core of our agenda. It is an area that resonates with the next generation as well as this one. The evidence bears this out, whether through detailed polling such as that recently undertaken by Bright Blue or my experience on the doorstep. There was a clear mandate from these voters for the Conservative Government to adopt a more ambitious and complete conservative agenda towards the environment.

As our population continues to grow there will be ever increasing demand on our precious land and natural resources. It is therefore more important than ever not to jeopardise the very environment on which we rely for delivery of vital services. A healthy environment is a vital backdrop to achieving the sustained economic growth and increased productivity required to consolidate the United Kingdom's position as a global player. Get this right and it will be possible for business to deliver more for less at the same time. More significantly a sustainable economic bedrock can be a catalyst for wider social equality to take root in our lives. But this is not only vital for our country: the positive impacts on world security should not be underestimated either. In times of economic uncertainty and global insecurity, we should be looking to make changes which provide stability at home and abroad.

To set things in context: on a global scale world population is predicted to reach 9.6 billion by 2050 and our inexhaustible needs will require natural resources equivalent to three earths to be sustained. Our excessive consumption, use of enormous quantities of waste, and disparities between rich and poor across the world cannot continue unchecked. We risk considerable threats from climate change, pressures on water security, loss of biodiversity, deforestation, urbanisation, population growth, poverty and food security because of current behaviours. It's a long list, its unsustainable but we must not despair, these problems are not insurmountable.

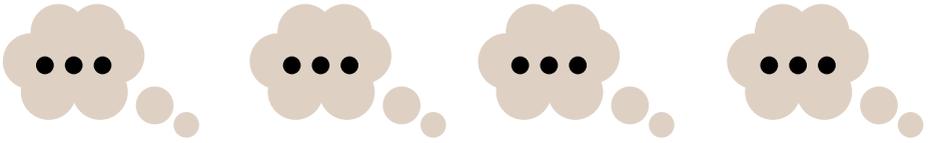
Global emissions of carbon dioxide have increased by almost 50% since 1990 with energy being one of the main contributors to climate change, accounting for the largest percentage of greenhouse gas emissions. Over 1.7 billion people are living in river basins where water extraction exceeds recharge; half of the world's mature forests



have been cleared which has had an impact on climate change, caused soil erosion and species loss; 8% of known animal breeds are extinct with a further 22% at risk; 3 billion tonnes of food is wasted every year whilst 2 billion people go undernourished and hungry.

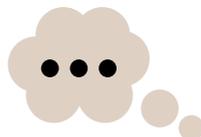
This catalogue demonstrates that it is time to tackle these issues head on by putting sustainability at the heart of the future. With clear policies, a long term focus and harnessing business and individuals in terms of their behavioural choices an optimistic future beckons. And, I am pleased to say, the Conservatives are already leading the way on the wider sustainable agenda having played a key role in the Paris climate change talks (COP21). We have followed up by ratifying our commitments to cutting global warming which is so damaging to livelihoods in terms of more frequent, catastrophic weather incidents and increased famine caused by crop failures. Committing to phasing our coal fired power stations, something which the Conservative Environment Network consistently pushed for, further illustrates how seriously this government is working in this area. In addition under the UN banner we have adopted 17 Sustainable Development Goals (SDGs) to be reached by 2030. These commitments will require substantial financial and human capital investments and major changes in Government and business thinking, but they also provide very real opportunities. The risks of inaction are too great, we can no longer pay lip service to these issues.

A holistic approach to our environmental challenges and opportunities means understanding the often unlikely ways this all fits together. Weaving a sustainable strand into everything from energy, to housing, industry, health, education, justice and of course agriculture makes sense. This government has laudably committed to leaving the environment in a better state than we found it but to achieve this there is much to do to co-ordinate a comprehensive framework that will ensure a fully holistic approach. Take just one area, air pollution, for example, if we tackle this effectively (rather than through a plethora of confusing approaches) the knock on effects for society in terms of new technology for transport, improved health outcomes with subsequent savings for the NHS would be significant. Similarly an increased emphasis on sustainable, healthy food grown to the highest standards and welfare codes could pay dividends as we promote 'Brand Britain' in the post EU era.



Other areas ripe for joined up thinking include flood resilient housing, catchment scale land management to reduce flooding, outdoor opportunities for the mentally ill, social issues, justice, human rights, dignity, equality and transparency too. Moreover we must learn to value nature and understand that without it we cannot exist. As I have already alluded to, with the right approach business benefits and many businesses are already successfully demonstrating that an emphasis on sustainability, through embracing the circular economy, can increase profits. It is also the right thing to do, not just because it can make good financial sense but also because it makes social, environmental and political sense too. Using fewer resources, doing things more effectively and having engaged and motivated people creates shared values that have clear wins for shareholders, for society and for the environment .

The CEN has demonstrated through its excellent work in bringing about advancing this agenda, whether it be through the 'Blue Belt' marine reserves or through pushing for early coal phase out, that these issues should be viewed through a holistic lens. Now is the time to build on this base and as demands on our crowded island grow, to grab the issue of sustainability with both hands. Only through doing this can we create an environment that really works for everyone.



Harnessing horticulture

Gardens, gardening, and horticultural skills can have a striking effect on our communities. Getting more people gardening is a truly holistic, cross departmental, high impact policy argues Rebecca Pow MP.

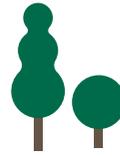
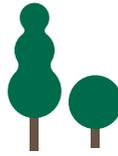
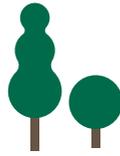
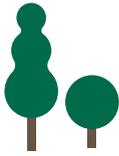
The UK has a reputation as a nation of gardeners. Gardens come in myriad forms, from extensive parks to allotments, terraces, window boxes and balconies. Whether owned, rented or simply borrowed, gardens cover an area the size of Exmoor, Dartmoor, the Lake District and the Norfolk Broads National Parks combined.

Having spent much of my career pre-politics involved in garden journalism and broadcasting and working 'in the field', I am acutely aware of the rich benefits society can gain from horticulture, touching as it does on urban regeneration, growing food, contributing to the economy, influencing our well-being and surrounding us with beauty.

These green gems provide important outdoor playgrounds for relaxation and exercise, often offering a therapeutic alternative to the pressures of everyday life. Realising the free benefits the outdoors can offer, some GPs are recommending 'green prescriptions'. The garden economy makes a significant contribution to the nations' coffers, with £7.8 bn being spent on this sector by tourists every year. This aside our parks and gardens deliver a wide range of other vital services including being valuable habitats for wildlife and nature, capturing and storing carbon helping to combat climate change and reducing flooding.

A number of organisations, including the Royal Horticultural Society through their Greening Grey Britain initiative, are recognising that by harnessing the strengths of these green spaces, there are opportunities to bring even greater benefits to society. Through the disciplined and therapeutic effect of working with plants, it is possible to stimulate interest, commitment and provide skills where other forms of encouragement have often failed. This is especially relevant for those in deprived communities.

This has been ably demonstrated in Halcon, a part of my Taunton Deane constituency that finds itself listed amongst the 4% most deprived parts of the country. Traditionally this area has been home to consecutive generations of long term unemployed and drugs, crime and low standards of education have been all too prevalent. Through a dedicated, inter disciplinary, community run project called the One Team the area is



gradually turning around. Amongst other focus areas, gardening has played its part. Organised by a dedicated local police operation, the Link Power project has offered unemployed residents the chance to train in gardening skills such as strimming, pruning, plant knowledge, chain saw courses and so on. Through this means the neighbourhood has been kept well maintained, help has been provided for those in the community unable to cope themselves and crucially the skills and confidence acquired from the Link Power project have enabled many to get back into work. On a purely economic note, there is a skills shortage in the horticultural sector in its widest sense and there are plenty of opportunities for employment in this £3bn industry.

Gardening also worked its magic in Halcon through a garden competition. As a judge, I was struck by how a bit of healthy rivalry for the best front and back gardens encouraged the clearing of litter, (now there are regular community litter picks), the cutting of verges and of course the growing of a kaleidoscope of colourful ornamental plants and some nutritious vegetables. The physical effect on the area of having pretty gardens was significant but the competition also engendered a great community spirit, getting people out talking over garden gates. From tiny acorns, mighty oaks will grow. Certainly, providing people with the opportunity to green their communities can be a way of tackling deprivation – unemployment, lack of skills, low education attainment and mental health.

This has also been ably demonstrated through a Somerset Wildlife Trust project run in partnership with the Taunton Association for the Homeless. Many people experiencing homelessness and isolation have been brought together to work on a community wildlife garden in Taunton, learning about nature and growing healthy crops. This has enabled people to connect with wildlife, get advice, socialise and generally add to their well-being and both organisations involved have been pleased with the success of the project.

Government departments are all working on individual responsibilities as they relate to deprived communities; the Home Office on drugs and crime; the Department of Health on mental health; Department for Work and Pensions and the Department of Communities and Local Government on unemployment and of course DEFRA on horticulture. To get the full benefits that the power of plants can provide our communities with, especially in urban areas, requires an interlinked approach and now is the time to sow those seeds and spread those roots for the greater good.

Richard Bacon MP, South Norfolk



Transforming how we do housing

Delivering serviced plots of land for all who want them will transform Britain's housing market. It must be sustainable and add value to our communities says Richard Bacon MP, author of the Self-Build and Custom Housebuilding Act and ambassador for Britain's new Right to Build Task Force.

Britain's housing model is broken.

That isn't just my view - the title of the government's recent Housing White Paper is: "Fixing our Broken Housing Market".

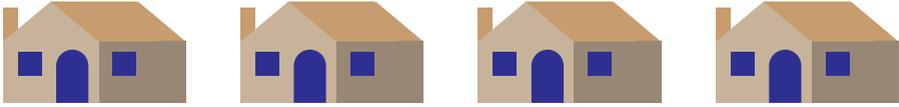
Finally, we have a clear admission of something which has been increasingly obvious in recent decades under governments of all parties - our housing market simply doesn't work properly.

Demand is unable to influence supply and drive volumes in the way that it does in markets that operate successfully. Some years ago, in a Commons committee room, Kevin McCloud, the presenter of Channel 4's "Grand Designs" television programme, told our All-Party Parliamentary Group on Self-Build, Custom and Community Housebuilding and Place-making:

"The consumer has been on the receiving end of a pretty poor deal. We build some of the poorest, most expensive and smallest homes in Europe. That's not something to celebrate."

The word "developer" is now almost a swear word. Yet the instinct which we all have to nest and to build a home is a response to one of our deepest human needs; indeed, the requirement for shelter is one of our most important pre-wired survival mechanisms. If you were to go on a survival course, you would be taught that without food you could die within seven to 10 days, that without water you might expire after only three days or so, but that without shelter - depending on how extreme the conditions were - you could actually die in a matter of hours or even minutes. Yet we often talk about development - which means providing enough shelter for everyone - as if it were a bad thing.

It should be obvious that without enough housing, the chances of our children and



grandchildren finding a home that they can actually afford – to buy or to rent – are rapidly fading from view.

In order to make “development” a good word, we have to have good development. We should embrace good growth using beauty and real choice for housebuyers as the main yardsticks. This may sound airy-fairy but it is the exact opposite, which the Prince of Wales has noted in his BIMBY or “Beauty-In-My-Back-Yard” campaign. Housing growth need not be delivered through bland estates that all look the same. Growth can be beautiful, respectful and desirable.

Some 53 per cent of people in this country would like to build their own house one day, or – more probably – to get an old-fashioned housebuilder (or a modular house supplier) to build the house they actually want, to their own design. Much lower running costs and more thoughtful designs that actually meet people’s desires are just some of the reasons why this option is growing in popularity.

We have to create real choices by making it much easier for people who want to bring forward their own projects to get a serviced plot of land. That’s why I sponsored and steered through Parliament the Self-build and Custom Housebuilding Act 2015.

My Act requires local authorities to keep a register of individuals – and what are called ‘associations of individuals’ – who want to get a serviced plot of land to build a house. An “association of individuals” could be anyone: a group of friends; the governors of a high school offering accommodation as an incentive to recruit and retain teachers in difficult-to-fill subjects; or the Royal British Legion or a similar veterans’ body such as Help for Heroes, working with veterans to fulfil their accommodation needs. Local councils must now provide enough suitable development permissions to meet the demand on the register.

The Dutch experience is very instructive. In The Netherlands, local councils see more self-build and custom housebuilding plots as an innovative way to meet local housing needs that actually goes with the grain of what local people want. An “expert group” was established to help local authorities in speeding up this process, which doubled the output in three years. Britain’s new Right to Build Task Force is modelled on the Dutch experience, and – with funding recently agreed from Nationwide Foundation



– it plans to spread a similar approach in the UK, where the population is four times larger; if in the UK we were achieving the same output of self-build and custom housebuilding plots pro rata as in The Netherlands, there would now be an extra 60,000 units per year. That’s a lot of extra housing.

We must have better, smarter, beautiful, sustainable development that offers a wide range of real choices to consumers and which is actively welcomed by existing communities, including the grandparents and parents who so often oppose development with arms folded saying, “We don’t want any more houses in our area.” Naturally enough, they want to see the next generation flourish and do well – and to see their own offspring well-housed. They also want to see “good development” rather than yet more predictably standard “boxes” with high prices, no extra facilities, profit for someone else outside the community and no benefit for local people.

If we keep doing what we’ve always done, we will keep getting what we’ve always got. It has to change. Development should be about making great places to live – well-designed, well-built and “green” homes with really good digital connections, within communities which have top notch facilities. This will happen if – and only if – we allow our communities greater voice and choice about what gets built, where it is built, what it looks like and who gets first chance to live there. As the architect Rod Hackney once put it:

“It is a dangerous thing to underestimate human potential and the energy which can be generated when people are given the opportunity to help themselves.”



Victoria Prentis MP, North Oxfordshire



Innovate to tackle waste and litter

Our culture of disposables must be tackled. The government must encourage innovation in packaging to tackle our endemic litter problem argues Victoria Prentis MP.

I grew up on a farm and was always taught to pick up any litter we found on our walks. All of my family have enjoyed more organised village litter-picking, and I found getting involved with the organisation Clean for the Queen to be a natural progression. This year we carried on the initiative in the form of The Great British Spring Clean, which was a huge success with many colleagues taking part across the country and I am pleased that it looks like this will now be an annual event. We have some good news on litter; recent Government initiatives such as the 5p bag charge have been implemented with great success. However, there is always more to be done when it comes to limiting the amount of waste we leave lying about, and reducing our seemingly insatiable demand for disposable plastics. In this respect I was pleased to see the National Litter Strategy announced earlier this year, which aims to send a clear message about cleaning up our country and improving enforcement mechanisms.

Our next big challenge is lessening our dependence on single-use plastic bottles – something that shouldn't be that challenging, given the alternatives. Research by BRITA UK and the Marine Conservation Society has found that Britons use around 7.7 billion plastic bottles per year. Since disposable single use plastic bottles take 400 years to degrade, this has a devastating environmental impact; indeed, it is estimated that by 2050 there will be more plastic in the sea than fish. 12.2 million tonnes of plastic enters the marine environment every year, with over 94% of that settling on the sea floor. Here in the UK, around 800 plastic bottles per minute are ending up in landfill or as litter. Even a bottle dropped in my landlocked constituency of Banbury is likely to end up in the sea. This is an unsustainable level of pollution and we cannot allow it to continue.

We need to persuade people to switch from single-use bottles to reusable ones. BRITA UK are based in my constituency and have been very active in promoting the use of reusable bottles. These are an environmentally-friendly solution, but refilling away from home can be problematic. People often feel reluctant to ask for tap water in a café or restaurant. I was pleased to hear about the Refill Bristol campaign, which I would love to see implemented nationwide. It's a very simple idea: participating



businesses put a sticker in their window that lets people know that they are welcome to come in and fill up their bottle for free. You can also download an app that lets you know where the nearest refill point is. This initiative could be a cost-effective way forward.

As part of the Litter Strategy published in April the Government has established a number of working groups to look at different models to improve recycling and reuse of packaging to reduce the incidence of commonly littered items. I understand that the Government is leaning towards a voluntary approach with economic incentives and I was heartened to hear the working groups first investigation will be into measures that could be introduced to target plastic bottles and other drinks containers. This is a great first step and I do hope we will see some of this excellent work come to fruition soon.

The success of the 5p bag charge has been visible and immediate. In the first six months after its implementation, the number of single-use bags dropped by 85%. This has had a significant effect on litter levels, with the Marine Conservation Society recording a 40% drop in the number of bags found on beaches. It might be that we have to consider an extra duty on disposable plastic bottles to see similar results. A deposit-return system might be another good solution; it would encourage people to recycle their used bottles at a 'reverse vending machine' in return for a small amount of change. This would have the added benefit of encouraging spending in nearby shops, as well as making sure that single-use bottles make it into the recycling system rather than being dropped as litter or going to landfill.

Recently, I have had some interesting discussions with WRAP, a very effective organisation based in my constituency. I am told that a move towards reusable, recyclable products that are made to last could help feed into what is called the 'circular economy'. Developing longer life products benefits the economy and the environment as well as the sustainable jobs and skill required to make them. WRAP is encouraging businesses to take a longer term perspective at the design stage, using lasting materials and reformulating products so they need as little packaging as possible. It makes financial and environmental sense to purchase, for example, a mobile phone that will last ten years and stay up to date with regular software changes, rather than buying a phone that needs replacing after just one or two years.



The same principle applies to plastic bottles: it might take a little bit more energy and resources to produce a reusable bottle, but it will last for months, not a day. And it's not as if consumers are short of options for refillable water bottles already.

In a similar vein, we must make sure that manufacturers take into account what will happen to their product when it does eventually reach the end of its life, whether it is clothing, an electrical appliance, or a plastic bottle. Almost everything that is produced will become waste at one point, so more initiative needs to be taken when that does eventually happen. Perhaps surprisingly, WRAP does not see biodegradable packaging as the ideal long-term solution. Firstly, materials that biodegrade are a 'lost' resource: time, energy, money and resources have gone into creating it, only for it to disappear into nothing, probably after just one use. Secondly, and this was not something I had considered before talking to WRAP, if biodegradable materials make it into a recycling plant, the product that is made has a tendency to fall apart before it can be useful. Not only is this a waste of valuable resources, but it is inconvenient to the consumer.

There are some brilliant innovations going on around the world, from six-pack rings made from barley and wheat that can be eaten by fish if they make it into the sea, to kitchenware made from old orange peel (yes, really!). However, we do not all need to be inventors to make our own contribution to the environment. It is not difficult to get hold of a reusable plastic bottle and learn to steer away from disposable alternatives. Our responsibility now is to embrace a cleaner and more sustainable way of life, choosing to move away from our addiction to convenience. Only then will we be able to improve our quality of life, increase productivity, and help reverse the devastating effects on wildlife. In my opinion, forgoing bottled water for that is a small price to pay.



Helen Whately MP, Faversham and Mid Kent



Using the environment to improve health outcomes

The health benefits of spending time in natural environments are substantial but often overlooked. Helen Whately argues it's time to push this up the agenda again.

Many of us take for granted that we're likely to live well into our 70s and 80s, and possibly longer. I find it staggering to think for people born 100 years before me, their life expectancy was just half that. Yet while such progress has been made, the level of health inequality in the UK remains shockingly persistent. Men born in the most deprived areas of England will die 9.2 years sooner than those in the least deprived areas, for women it's 7 years. And with shorter life expectancy comes fewer years of health in which to enjoy a good quality of life.

And what's causing this persistent gap? It's well known that rates of smoking and obesity are higher in poorer communities. However, what some people might not be aware of is the inextricable link between health and the natural environment.

There's a wealth of scientific research into the health benefits of spending time in a natural environment. Access to green space can increase physical activity among all age groups. It can increase opportunities for social interaction, community cohesion and satisfaction with the area you live in. And contact with the natural environment has been shown to increase mental well-being, reduce the symptoms of mental illness and combat stress.

But people living in poorer areas generally have far less access to green space. The most affluent 20% of wards in England have five times more green space than the most deprived 10% of wards. Opening up more green spaces could help break the link between deprivation and poor health.

One clear benefit is the opportunity for physical exercise green space provides, but there's also evidence that just looking at a natural environment has health benefits. Royal Horticultural Society research shows that for the vast majority of people (over 90%), looking at a garden improves mood. A study conducted in a hospital in the 1980s found patients with a view of greenery recovered more quickly those without; this has inspired the 'NHS Forest', a national project to improve the green spaces around hospitals which has led to over 50,000 trees being planted so far.



Many organisations are turning to the environment as a valuable tool in treating mental health disorders. The charity MIND have produced a report called 'Feel Better Outside, Feel Better Inside' advocating the benefits of ecotherapy. Ecotherapy helps people improve their mental and physical wellbeing by taking part in gardening, farming, and exercise. This boosts skills and confidence and helps people get back into work. 69% of people who took part in these projects saw a significant increase in their mental wellbeing and 62% thought their overall health improved. So far this project has helped 254 people find full time work, saving the state £1.45 million in support payments.

In my own area of Kent, a brilliant charity called Dandelion Time helps children traumatised by experiences of abuse or domestic violence build their capabilities and relationships. Caring for animals, growing vegetables and being outside are intrinsic to their approach, which turns children's lives around. In Faversham's Physic Garden, I've spoken to people with mental health conditions finding great benefits from gardening. And many primary schools I've visited have created wonderful gardening areas and wilder spaces for children to appreciate the natural environment – recognising that it's vital to form a connection with the environment in early childhood.

Governments, both Labour and Conservative, have appreciated the importance of green space for some years. For instance, in 2008, NICE (National Institute for Health and Care Excellence) published guidance to local authorities to ensure accessibility and maintenance of public open spaces. And in 2010 the renowned Marmot Review recommended improving the availability of good quality open and green spaces across the social spectrum.

The 2012 National Planning Policy Framework requires local authorities to carry out assessments of open spaces, recognising their importance for health and wellbeing.

The current Conservative Government is committed to fairness and social justice, and is looking at the wider causes of inequality. The Work, Health and Disability Green Paper published at the end of last year emphasised the social, economic and environmental causes of inequality, recognising that we cannot tackle this problem purely through a clinical approach.



And then there's all the work being done to tackle obesity. It costs NHS England £16 billion a year to treat obesity-related conditions. Rates of obesity, especially in children, are higher in the most deprived areas – where children are twice as likely to be obese as those in the least deprived areas. And while childhood obesity has been declining in recent years, this trend is bucked among the most deprived children. And yet these children have the least access to green space. So we must look again at how we can provide more opportunities for people in deprived areas to get outdoors and exercise. The Government recently announced the creation of a Childhood Obesity Research Unit; I hope it will broaden research beyond what children consume to include access to and use of natural green spaces.

The Government has already made progress on protecting the environment for the good of everyone, for example increasing protection for Ancient Woodland (included in the Housing White Paper). This should give more people the opportunity to come into contact with this special habitat, and at the very least, prevent the loss of woodland. Currently less than 15% of people in this country have woodland within 500 metres of their home. As I write, people are protesting in Sheffield against plans to cut down trees in the city; where there are trees, people know their value. The next challenge is to make green space integral to the design of our villages, town and cities, so that everyone has the chance to enjoy it.

Turning to healthcare, harnessing 'green prescriptions' alongside traditional prescriptions could be the next stage of social prescribing. The Local Government Association has recently called on the UK Government to implement a similar model to that of New Zealand, where 8 out of 10 GP's have issued green prescriptions to patients, with a survey revealing that 72% noticed a positive change to their health. Studies published in the British Medical Journal that followed the New Zealand example found that a green prescription increases physical levels of activity and improves the quality of life over 12 months, and unlike most traditional medicines there were no adverse effects. The LGA is encouraging GP's to write down moderate physical activity goals for their patients, including walks in the park or family classes run by the local authorities. There are a few pilots underway in the UK across Dartmoor and Exmoor, where GP's can encourage patients to visit national parks as part of their treatment or as an alternative to medication.



We know the positive effect the environment can have on physical and mental health. Now, as the Government is drawing up its 25-year plan for the environment, there's an opportunity to make sure this thread weaves through policies in multiple departments, especially planning, education and healthcare.

I am not suggesting that what I have outlined here is a panacea in the face of our huge health and social care challenges. But too often we expect the NHS to solve all our healthcare problems. Government needs to consider health in all areas of policy, including how we make better use of our wonderful natural environment. We may complain about our short rainy summers, but we are blessed with a climate which gives us wonderful green areas. Unlike the brittle yellow parks I've seen in other countries, our climate supports green grass, flower-filled meadows and shade-giving trees. We should make the most of it, and use it to help fulfil our ambition to reduce health inequalities and provide a better quality of life for everyone.



A sustainable approach to water and waste

Our water infrastructure and industry must have sustainability and innovation at its heart. Government and industry must work together for creative solutions for a robust infrastructure with a lasting legacy argues Dr Matthew Offord MP.

The ever-changing nature of the world around us is putting pressure on a vital resource we often take for granted in this country – water. Pouring it down the drain or flushing the toilet is second nature to many of us and we don't often think of where it goes.

The water sector in the United Kingdom is under increasing demand to keep up with changes in our climate and population, and rapid adaptation is required for it to meet the challenges from consumers and businesses across the country.

Within 20 years, the climate is expected to warm, rainfall is expected to decrease, and population in England alone is anticipated to rise by up to 10 million people. The vast majority of this population growth is expected to occur in regions of the country where water is already scarce and urban pollution is extensive.

As I write this, I have just completed the 184 miles of the Thames Path National Trail – walking the length of the river from its source in Gloucestershire to the Thames Barrier in East London. The Thames passes through quaint Oxfordshire villages, enters Berkshire, Buckinghamshire and Surrey towns before entering the urban metropolis of London. Along its journey it faces challenges in the form of pollutants from farming chemicals, litter and sewer overflows. According to the Environment Agency's (EA) river basin management plans, many of our rivers are facing unprecedented pollution for many years to come and action needs to be taken to relieve this problem now.

Last year, the Department for Environment, Food & Rural Affairs (DEFRA) published an important roadmap towards building resilience to these challenges to our water sector. One important topic which is often raised is the sustainability of our sewage and drainage systems. Increasing use of sewage systems in densely populated areas or high levels of rainfall in urban zones can overwhelm our wastewater systems and subsequent flooding can lead to pollution.

Dr Matthew Offord MP, Hendon





As much as it is an unglamorous topic, our drainage and sewage systems are vital in improving the environment we live in. Something as simple as an ecological approach to drainage can dramatically improve the areas in which we work and live. One fantastic initiative we see in action today is the use of Sustainable Drainage Systems (SuDS).

In built-up and highly developed areas, pollution in the water supply is a challenging issue as pollutants come from a variety of sources. In urban environments it is often difficult even to know where pollution is coming from, but runoff activity and waste water entering the water courses where they should not is a common problem and these are issues that need to be countered.

SuDS are an innovative drainage system aiming to tackle this issue head on by mimicking the natural movement of water. Rather than passing through conventional pipes which flow quickly into our waterways and sewers, storing surface water at source and managing runoff caused by urbanisation, SuDS can greatly reduce pollutants in water supplies. For example, by reducing surface run-off to sewer systems, SuDS reduce the flow to water treatment works, reducing demand and applying equality in surface water drainage.

We are seeing great examples of SuDS in action across the country. In schools along the Pymmes Brook in North London, SuDS have been fitted by the Wildfowl and Wetlands Trust, in partnership with Thames Water and the Environment Agency. The introduction of SuDS in these schools means increased green space, more wildlife and opportunities for children to learn about conservation and the importance of our waterways. We are even seeing the introduction of these systems in the Queen Elizabeth II Olympic Park, adding an environmental element to the legacy of our Olympic Games.

Examples such as those along the Pymmes Brook just go to show that these systems do more than just enhance water quality across the country and that something as innovative and unassuming as a sustainable and green drainage system can also have a major impact on many important socioeconomic factors in our lives. Take, for example, the link between a clean and green environment and reduced crime levels, or even the new walking or cycling opportunities created which bring health and



lifestyle benefits. SuDS can benefit areas by creating more attractive places for people to live or visit and there are even opportunities to introduce them into traffic calming measures along roads. There is evidence that SuDS can stimulate economic growth through the creation of green jobs and unlocking new land which developers would not previously touch.

The benefits have already been acknowledged by government. In 2015 SuDS became a key part of planning policy and later the 2017 Housing and Planning Act enshrined the responsibility of the DCLG Secretary to reviewing sustainable drainage systems in England. These drainage systems are a vital part of the water sectors' long term plan to protect our sewage systems and reduce pollution in our water supplies.

However, we know that as a nation we cannot rely on just the Government to find solutions to the issues that we face. It is for this reason that we must look towards the private sector in the water industry to rid us of pollutants. In 2013, the Government laid a challenge to the water sector to tackle sewage overflows. Since then, the industry has invested hundreds of millions of pounds and continues to work in partnership to deliver important projects such as the Thames Tideway.

London's Victorian sewer system is no longer fit for purpose and the Tideway project will deliver a 25 kilometre sewer tunnel to prevent an average 20 million tonnes of untreated sewage discharging into the River Thames each year. Not only will the Tideway Tunnel benefit the environment, ecology and appearance of the Thames but it will provide an economic boost by creating thousands of skilled jobs and hundreds of apprenticeships.

As the largest infrastructure project the UK water industry has ever undertaken, the Tideway Tunnel aims to create a legacy of sustainable jobs and a sustainable environment. In October 2016, I took to the Thames to see for myself the progress of the project. During my visit to some of the construction sites on the river, it was clear that the Thames Tideway Tunnel will not only help to address this important health and environmental issue, but it will also leave a hugely important legacy. It also includes some smaller projects such as working with the Port of London Authority to introduce the Cleaner Thames scheme, encouraging people to bin their litter appropriately.



I am proud to be part of a Conservative Government which is dedicated to ensuring our environment is in a better condition than that in which we inherited it. In her 1988 Conservative Party Conference speech, Margaret Thatcher said that, "...the core of Tory philosophy and the case for protecting the environment are the same" and this still rings true today.

As Conservatives, we should be preserving our environment for all generations to come, no matter where you live or who you are. Just as making decisions about sound public finances is for the sake of those who come after us, we must continue to take action over the environment for those same future generations so that we can leave a sustainable and green world that works for everyone.



Andrew Selous MP, South West Bedfordshire



Being ambitious on air quality

The Conservatives have a legacy of tackling air quality and we must be at the forefront of creative solutions. Getting the answers right here can be a game changer economically and in terms of public health argues Andrew Selous MP.

The Department of the Environment, Food and Rural Affairs estimates that nitrogen oxide and particulate emissions contribute to the early and avoidable death of more than 50,000 people each year in the United Kingdom. This is around 25 times more than the number of people who die on our roads in traffic accidents every year. The problem is not just limited to London and our big cities either, with 40% of Councils in in the United Kingdom having breached nitrogen dioxide limits in the last year.

Other countries are doing better than the United Kingdom with a recent ranking (AMEC 2014) putting London 15th out of 36 major global cities in terms of overall air-quality behind other European cities such as Stockholm, Vienna and Berlin. It was a Conservative Government that passed the Clean Air Act of 1956 and it falls to this Government to take the necessary action now to respond to the current challenge notwithstanding the two recent legal challenges the Government has lost on this issue. Conservatives instinctively understand the need to conserve the quality of our air as a key part of protecting our environment.

It was a fundamental mistake to reduce the tax on diesel cars in 2008. Diesel cars are a major contributor to poor air quality alongside a number of industrial processes, gas boilers and some agricultural techniques. While our constituents who have bought diesel cars, in the belief that they were more environmentally friendly, will not be happy, neither will they be happy when the full impact of poor air quality becomes apparent. We know that lungs damaged by nitrogen oxide and particulate matter emissions in childhood will be stunted for life. Families and schools near to busy roads are demanding action now. In London, nearly a quarter of school children are exposed to air pollution levels that break legal limits. In my own constituency of Dunstable, GPs have told me that children living in the middle of the town have worse levels of asthma compared to children living in the suburbs or in neighbouring villages.



In addition to reducing life expectancy, poor air-quality is responsible for increased rates of asthma, bronchitis, lung cancer, cardiac problems and, according to some recent studies increases in dementia as well.

In the 1960s, Japan was regarded as the most toxic country in the world due to poor air quality. Today Japan is one of the least polluted countries in the world as well as being one of the wealthiest and credit for that goes to the determination of the Japanese government which passed 14 laws in 1970 to get a grip on the problem. The Japanese example should be an inspiration to the United Kingdom now.

The Government's Air Quality Plan is welcome news and there is much for us to consider and to bring forward from it. However, we should continue to push for an ever more ambitious approach to tackle this crucial issue. I wish to outline 3 key areas where I think our focus should remain.

First, we should be unashamedly aiming high for good standards of clean air for us all to breathe. Some European standards do not meet World Health Organisation standards for air quality and having good air quality should be seen as a competitive advantage for the United Kingdom.

Second, the opportunities for cleaner energy and ultra-low emission vehicle development are enormous. The solution to the problem should be part of our new industrial strategy to be a dominant player in clean energy and ultra-low emission vehicles. We can continue to be a wealthy and prosperous nation by devoting ourselves to solving this problem. The Chinese Government is committed to investing \$1.5 trillion to curb pollution and develop its ultra-low emission vehicle capacity. America is developing 48 electrical corridors covering 25,000 miles in which there will be a charging point available at least every 50 miles.

Although a quarter of all electric vehicles sold in the European Union are made in the UK we only have 87,000 ultra-low emission vehicles on our roads and there are already 555,000 in China. In Norway a quarter of all the cars on the road are electric or hybrid electric and Norway and the Netherlands plan to completely phase out diesel vehicles by 2025. It is a laudable aim for the government to ban all petrol and diesel cars by 2040 but this should be a baseline expectation, not a target.



Thirdly, we need to help people, particularly those on lower incomes to transition to less polluting vehicles. Many people who drive older diesels do so because they need good fuel economy in order to balance the budget every month. The California Air Resources Board could point the way here as it has incentives aimed at helping the lowest income families move to the very cleanest cars. We should not rule out scrappage.

A country that works for everyone is not one where children, often in more disadvantaged areas, have their lung capacity stunted in childhood and with it the opportunities to flourish in life. The challenge is huge, but with will and determination, looking to how we and other countries have tackled these issues in the past and seeking to be globally ambitious, it is definitely a challenge that we can tackle.



Alex Chalk MP, Cheltenham



A commitment to encouraging cycling



The benefits of cycling cannot be underestimated, we need investment in cycling and related infrastructure to reap a multitude of rewards argues Alex Chalk MP.

When more people cycle, society benefits.

It's not just the familiar arguments about CO2 emissions and air quality, important though they are. Instead, it's becoming increasingly clear that everyday cycling is one of the simplest and most effective ways of tackling the UK's growing public health gap. The reality is that despite record sums being invested into the NHS, we face a serious and growing problem of lifestyle disease; heart disease and stroke, type 2 diabetes, arteriosclerosis and obesity. They are absorbing a dizzying proportion of health spending. Cycling, particularly commuter cycling, offers us the opportunity for exercise every day in a convenient, time-efficient (and money-saving!) form.

It's good for our economy too. Studies show that when employees cycle to work, productivity increases. According to recent research, exercising before work increases an employee's productivity by up to 15%; whilst absenteeism can be reduced by as much as 80%. On average, non-cyclists take two more sick days per year than cyclists. Sustrans, a UK transport charity, claims that by making cycling to work more convenient, UK businesses could save up to £13bn through reduced sick days and boosted productivity.

The former Prime Minister, David Cameron, promised a 'cycling revolution' and the Department for Transport's (2016) Cycling and Walking Investment Strategy (CWIS) proposes a target of doubling cycling trips in the UK by 2025. I'd like to go further. In 2015, just 2% of journeys were made by bicycle in the UK. This compares with 27% in the Netherlands.

Of course there are a few topographical differences between the UK and the Netherlands. That's why the All Party Parliamentary Cycling Group recommends that the target be increased to 10% of journeys, and that funding for cycling increase from £6 to £10 per head. Progress towards these targets must be monitored effectively, and the Government has already helpfully proposed the inclusion of an Expert Committee in the CWIS plans.



When it comes to the environment, every change we can make no matter how small, will make a difference. The Government has already committed to a new cycling strategy but we need to go the extra mile to catch up and compete with our European counterparts. Simply put, we cannot afford to miss out on something which if supported properly could be so beneficial to our economy, our health and the benefit of our environment. Britain, get on your bikes!



Leading the world: Electric Vehicles



Britain can lead the world in Electric Vehicles, this is an opportunity that cannot be missed. We must be bold to be at the front of the electric vehicle revolution argues Neil Parish MP.

Electric vehicles (EVs) are on the cusp of huge growth in the UK. And their benefits are manifold – better air quality, lower carbon emissions, significant household savings and the potential for a thriving domestic manufacturing industry.

We all know we have a problem with air quality in Britain. Toxic gases emitted from combustion engines, and particularly diesel vehicles, are linked to thousands of premature deaths every year in Britain. And it's often the poorest neighbourhoods, in the inner cities, which are worst affected.

EVs go a long way to solving this problem. Road transport is responsible for around 80% of Nitrogen Oxides in areas exceeding legal air quality limits. A move away from combustion engines, and towards EVs, would substantially reduce Nitrogen Oxide levels in the air. This would cut the risk of respiratory diseases or suffering strokes or heart attacks.

There's also the carbon benefit. As EVs have no exhaust emissions, they do not directly release carbon into the atmosphere. Sceptics say that EVs are only as green as the electricity that powers them – what's the point in moving to EVs if they're powered by power stations burning fossil fuels?

But the reality is that low-carbon electricity generation has surged in the UK, with renewables now generating a quarter of British electricity. It's now transport – not electricity generation – that has the highest carbon emissions of any sector in the British economy. Converting a higher proportion of the UK car fleet to EVs would significantly cut carbon transport emissions by moving power over to a sector that is rapidly decarbonising.

Moving over to EVs would also substantially cut household bills. British motorists currently face some of the highest fuel prices in Europe. In contrast, an EV that achieves 3 miles per kilowatt hour can cut costs to around 4 pence per mile. The AA has estimated this is around five times cheaper than the average petrol car, representing a very significant saving for hard-pressed households and businesses.

Neil Parish MP, Tiverton and Honiton





There are also the national economic benefits. An April 2016 report from Loughborough University found that 320,000 jobs could be created and £51 billion generated for the UK economy if we take steps to upgrade our charging infrastructure and increase the number of highly skilled technicians. In my own constituency in Devon, I know businesses are considering using EVs for car rentals and exploring the local countryside. The businesses opportunities are considerable.

In an impressive display of radicalism, last month, the Government took the bold step of banning new diesel and petrol vehicles from 2040. But we also need to incentivise the use of EV's now. Although the market has grown rapidly in recent years, Ultra-Low Emissions Vehicles still only account for 1.3% of new car registrations. This compares very poorly to nations such as Norway, where 27% of all new car registrations are now for EVs. So what's the solution?

We need a massive focus on EV charging infrastructure. The Department for Transport's own research shows one in five people in Britain have considered buying an EV. However, the biggest factor deterring their purchase is recharging, and particularly the availability of charging points and not knowing where to find them.

The new Automated and Electric Vehicles Bill provides the perfect opportunity for the focused roll-out of rapid EV charge points across the UK. Pricing structures for charge points should be made consistent and transparent, giving the public confidence to invest in an EV. Motorway Service stations and petrol stations should provide EV plugs and we should invest in road-side charging so these facilities are commonplace.

We need to be bold. There is still an average distance of over four miles between public EV charging points. The Government should commit to reducing this to one mile by 2040 in the Bill. I have also called for a targeted scrappage scheme to encourage replacing the dirtiest pre-2005 diesels with EVs. We should also look at the way Norway has used every trick in the book – from toll exemptions to tax breaks, access to bus lanes for electric vehicles as well as generous purchase subsidies to boost their EV uptake. We need to supercharge the EV market.

So let's make the UK a world leader in EVs. The environmental, cost and business benefits are clear. It's vital the Government puts electric vehicles at the heart of its Industrial Strategy and I look forward to scrutinising their plans in Parliament.

Jo Churchill MP, Bury St Edmunds



Sustainable rural communities

It is essential that rural public services, businesses and infrastructure can cope and new development doesn't swamp villages. Practical sustainability, waste as a resource and higher standards are essential for rural communities argues Jo Churchill MP.

When I was asked to focus on the Environment in rural services I thought, "How fantastic," but, in reality, the breadth of the issue is daunting. I will largely leave the matter of how the lack of rural infrastructure concentrates growth around our conurbations and does little to challenge the social issue of the urban / rural divide, for another time. The issue of broadband, mobile coverage and the lack of a comprehensive bus service could provide an essay on their own. Irrespective of the usefulness of some local services like 'Connecting Communities', (a transport solution), there is an issue transferring information so those who need it most are able to access it swiftly. This is of particular importance in a constituency like Bury St Edmunds that has a below average wage, house prices at 6-8 time the average salary and is the 2nd most senior by age in the country.

However, my gaze falls first on our inability to encourage and, should encouragement fail, to demand that our houses and, for that matter, businesses and public facilities are built to a higher standard. We should utilise every conceivable benefit of modern construction so we insulate, passively heat and re-use grey water as just a few examples; that we do not, is to our shame. The excuse, and you will not find someone more driven by a bottom line than I, that the market will provide is not strictly true, as each and every one of us knows. An obvious example of this is that we still build houses without the 4th Utility (broadband). Early adoption often brings with it the 'learning curve', technology moves at a pace and the expense of retro-fitting generally allows us to get away with not fitting at all. The excuse that our product will not sell, due to cost, could arguably be offset by the reduction in bills. This would markedly improve the affordability of some of our housing, particularly for those groups who struggle to access decent housing. We could take the average heating and water costs of a house (for a typical 3 bedroom @ £150.00 per calendar month) and use that over a mortgage term or to help with rental payments. This also has a lower environmental impact and a more sustainable approach from the individual or organisations' point of view. Heavy users of heat such as care homes, hospitals or businesses should not be allowed to be constructed without practical environmental impact assessments. Rurally, adopting and allowing others to use heat sources or anaerobic digestion

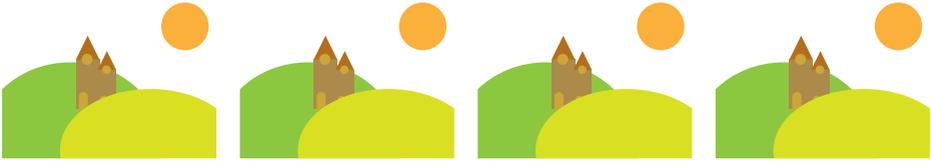


facilities should drive a tax benefit to the organisation. Homes in rural locations are more sparsely situated, often detached with four sides exposed to the elements and the rate of fuel poverty is higher and the cost of fuel delivery also often higher.

Large housebuilders also rarely control their waste outputs effectively costing both the purchaser and the environment more. A final point, albeit not very glamorous, is the lack of thought given to attractive compost and waste facilities in a build – here in Suffolk we have ‘Master Composters’ who teach others how to compost. I have recently spoken to one who is looking at the possibility of using a newly built school as a compost hub for Community Composting. Additionally, BT currently have in development at their technical head office, Adastral Park, monitors that can calculate how full a rubbish bin is and optimise the pick-up routes for lorries, useful in both the rural and urban setting.

Secondly, continuing from this, I want to concentrate on how we resource waste and how the rural economy can help push a more balanced approach. Moreover I would like to demonstrate how exemplar companies and institutions can drive us as a nation to adopt what I have termed ‘Practical Sustainability’. (Here my thanks go to the world’s largest global malt ingredients company, Muntons, based in Stowmarket, from whom the term is ‘recycled’). Alarming 15 million tonnes of food waste is generated annually. While we try to feed a growing national and world population from a declining agricultural base, the estimated waste per UK household is £700.00. There is more waste in the supply chain than in the consumer market.

These stark statistics have to be set against the rising tide of obesity and its concomitant pressure on our health services. So how can the rural economy balance the scales to help everyone? Seeing the rural economy as resource rich, rather than inaccessible and thereby uninteresting in economic terms, would reframe the discussion to allow some of our most creative and dynamic solutions to food waste in particular. Whilst food waste is better in an anaerobic digester than in land-fill, it is even better repurposed to livestock feed or processed for human consumption. There is still work to do in optimising this legislatively, but ensuring that innovation and R&D incentives target good behaviour is a positive step. Signatories to the Courtauld Commitment are welcome, if light touch, first step. Brewers and agricultural businesses in Suffolk especially Adnams, Greene King and Muntons are leaders. Having a circular



economy, with zero tolerance to waste, allows Muntons and Adnams to impact minimally on the Environment. Arguably, triple P reporting is not what it's about nor fancy Corporate Social Responsibility agendas; it is more about doing what is right and commercially sensible. Waste that cannot go to livestock feed, goes to anaerobic digestion and then onto their farm or Wildlife garden which attracts both wildlife and humans to aid well-being. More transparency around food waste in supply chains by those that feed us may well attenuate their decision making. To improve domestically but not drive down waste in those countries arguably less able, ignores the essential tenet of food waste - that it is a resource. Underlying this should be the UK's commitment to the United Nations Sustainable Development Goals.

Suffolk businesses, similar to many in rural areas, understand the connectivity with their surroundings and communities and their responsibilities therein. Whilst commercial imperatives should drive companies' innovation in what to do with waste, government policy should guide, and arguably reward, that behaviour. Rural businesses often do not have the luxury of being near Catapult centres or fit well into the Enterprise Investment Schemes so better flexibility should be applied here to encourage more rural exploitation of good ideas to generate employment.

Many of the solutions we find in rural communities are driven by solution seeking. Suffolk's 'Coffee Caravan', a peripatetic information and social isolation service is arguably a good blue print for other areas. Knowing what's going on in our own communities isn't always easy. It is especially difficult if access to transport is limited, or the village shop or pub or post office has closed, or you live in one of Suffolk's very scattered parishes. The caravan brings to rural communities, accompanied by coffee, tea and homemade cakes, all sorts of information about organisations and the services on offer to individuals. It befriends, keeps a watchful eye and offers a way of taking services to people. Both this approach and the mobile library service could be used more for the delivery of digital services and, in addition, could have both mental health specialists or benefit advisors assigned to them. Some of my constituents are too isolated and too lost to access services in a more conventional way. The challenge is for services to be funded on a three-year cycle to allow investment in equipment or longevity – here today, gone tomorrow services help no one.



an antecedent or a result of other issues around housing, isolation and lack of employment. All manner of initiatives are already going on and encouraging Doctors to follow green prescribing is beneficial. The Green Light trust, a Forestry charity, helps those with mental health issues be at one with nature, learn new skills and re-balance. Greener Growth, another charity, works in the prison service, virtually every week of the year, delivering Therapeutic Gardening, Well-being and Food Growing Courses within the Therapeutic Communities (TC) and Psychologically Informed Pathway (PIPE) Units. The courses include Food, Nutrition and Budgeting, Conservation and Bio-Diversity and are all centred around sustainable land use while increasing both personal confidence, self-esteem & rehabilitation as well as future employability. This model is partially funded by the NHS and the work within the prison community is of particular note for the successful way it accesses marginalised groups. This charity has now been funded by my town council to work with every ward in the town to bring the message of positivity and nature into some of my most challenged areas, where, as we stated, the planning landscape lacked and still does lack, imagination.

Finally, rural areas and services are by their location both challenged and blessed by their environment. Schools are nestled in glorious Suffolk countryside but we have a school bus bill of £22million and little rural bus service for anyone else. Rural services need delivering by connecting agencies and the Treasury should incentivise good practice. Childcare nurseries could be co-located in schools or on diversified farm business parks as could doctor's surgeries. This should not be free as there has to be an awareness of delivery costs in rural locations. Creating silos for services doesn't work, is expensive on the environment and on the recipient, and often rural dwellers accept poorer services as the pay-off for country living.

As we cast our planning net wider we must ensure our services, businesses and infrastructure can cope and new development doesn't swamp our villages. Looking at Practical Sustainability, waste as a resource and driving up standards in buildings would be a good starting point.



Getting ahead of global trends: the circular economy

“It is crucial that conservatives see the world that is emerging rather than by trying to govern as things are today. Sustainable production and resource efficiency should be at the heart of Government thinking” argues Richard Benyon MP.

We Conservatives have an instinctive attitude towards the environment. Whilst we can get as emotional as anyone about landscapes, species and other environmental matters we also understand that the environment is an economic and societal issue. Whilst others may wear their love of the environment on their sleeve, Conservatives are rooted in a desire to do practical things to protect and enhance it for future generations. Good things, based on evidence, that recognise how it makes economic sense to better use what nature has provided.

In Government, Conservatives have taken forward a vast piece of scientific work, The National Ecosystems Assessment, which assessed the state of natural systems and how we use them. We then commissioned Sir John Lawton to set out how to improve our natural world. This he did in his widely acclaimed report Making Space for Nature. This was followed by the ground-breaking Natural Environment White Paper. Of course we all accept that these are just lots of pieces of paper bound together and unless implemented, won't protect or enhance anything. But they are being implemented and we are starting to see the benefits of landscape scale conservation, of hard-wiring Natural Capital into policy making and serious attempts to reverse the decline in biodiversity. Along with other measures this puts us on a par with previous Conservative administrations that brought forward landmark legislation such as The Wildlife and Countryside Act and The Clean Air Act whilst in Government.

That most conservative of concepts, stewardship, should be the driver towards the UK's aspiration to be a leader in the smart use of resources. The big challenge is to see what measures can be done to manage natural resources efficiently. Here industry is ahead of Governments across the world. Many businesses embrace what some call the circular economy because it makes economic sense. Resource efficiency is about supply chain security. It's about risk management. So thinking in Government should see the need to move from a linear economy to a more circular one as an effort to nudge industry and the private sector to do what much of it wants to do anyway.

Richard Benyon MP, Newbury





with a linear one. The way we have used resources to produce goods has been simple and unsustainable. Simplistically put, we dig stuff out of the ground, make it into something and then put it back into a hole in the ground when it is old or broken. A circular economy model for the same product would involve renewable energy in its creation, the use of more sustainably sourced natural resources and a clear plan right at the start of the design of the product to enable it to be recycled at the end of its life.

In 2012 the Ellen MacArthur Foundation and McKinsey and Company produced a report that moved the circular economy from essentially an environmental argument to an economic one. Towards the Circular Economy: Economic and business rationale for an accelerated transition broke new ground by economically modelling what business could save in base materials cost (\$630 billion across Europe by 2025). Furthermore, it highlighted a new value chain for the development of skills in circular design and production.

Whilst most conservatives see the sense of this there are some purists who harbour an inbuilt suspicion that directing an economy is somehow wrong. A socialist's default setting would be for business to be taxed and regulated into following a rather centralised command economy approach. But there is a very clear conservative way forward here. Fiscal measures are better when they are incentives for business to design in product longevity, recycling and reducing the amount of embedded water or harmful chemicals in its production. Measures that encourage resource efficiency through innovation and even something as simple as accounting principles, could make a huge difference. We should not totally shy away from some tax and regulation: a Conservative Government introduced the landfill tax. This has been a spectacular success in reducing and all but eliminating landfill across much of the economy.

Keeping it routed in the practicalities of business management is vital. This means working with SMEs, their trade bodies and business educators to make what is new to some become a mainstream way of being an entrepreneur and bringing a good idea to market.

One of the great challenges for our generation is the sustainable production of food and the massive need to reduce food waste. Here technology is our friend. The Government's Agri-tech strategy says good things but Britain needs to be at the heart of the revolution that is about to hit this sector.



Around 75% of the lettuces, salads and micro-greens eaten in in New York are produced in one valley in California. This means a lettuce eaten in New York is likely to have travelled 2,400 miles. In order to stay fresh for the 7-15 days it takes to get them on the shelves it will have been sprayed with chemicals that lengthen its freshness. The solution being promoted by agri-entrepreneurs, AeroFarms is vertical farming. In a disused steel yard in Newark, New Jersey this company has developed a system of production that uses 95% less water, 90% less nutrients, no sprays and has now achieved a unit cost of production that makes it a viable business concept. There is more good news: the average lettuce takes just 16 days to be ready to market, the system allows 22-30 crop cycles a year, it can be robotically harvested and on the shelves a few miles away in a New York supermarket within 24 hours. In addition, this product lasts longer on the shelf so there is less wastage. And yes, in case you are worrying, it tastes superb. This is one example of technologies we need to see more of in the UK. A further developing technology that embraces the circular economy concept is the use of single cell proteins, usually algae, to develop protein feeds that can for the first time make food production systems like aquaculture completely sustainable.

As we struggle with the complexities of developing a post Brexit economy it is vital that we embrace these emerging technologies and have the ambition for the UK to be at the vanguard of their worldwide development. This can be done with Government ramping up its support for innovation and ensuring that technologies that make it easy to run sustainable business models are favoured. In the circular food economy the Government can create hubs for vertical farming within or close to urban areas to develop reduced waste and healthy, local food economies. This could be done as a pump priming enterprise zone concept or through an attractive capital allowance regime.

It is crucial that conservatives see the world that is emerging rather than by trying to govern as things are today. Sustainable production and resource efficiency should be at the heart of Government thinking.



The power of nature in our justice system

Positive engagement with our environment can be transformative in the lives of those who society often forgets, our prisoners. The power of our environment must be harnessed in rehabilitation argues Mark Holmes.

It has long been acknowledged that the environment plays a key part in the enrichment of all people's lives, specifically as part of social development, education, work and health. But these elements should not be considered in isolation, especially when it comes to the role that they could play within our criminal justice system.

Everyone wants to be a part of a healthy and secure community where children and families can grow up and feel supported. There are strong connections between poor health, family breakdown, housing, low educational achievement that are very well established. If we are to begin to break this cycle we must improve our 'place making' skills to give people a real stake in the communities in which they live. To do this it is vital to provide sustainable housing, successful schools and quality green space. These are goods on their own, but they can also have a profound impact on crime prevention and improving life chances.

We must not only look at how the environment can help with crime prevention, but also how we can weave the use of nature and increased green space into the existing judicial system, to support opportunities for reform and rehab. Whilst many might not think that the justice system and the environment are natural partners, I will have to disagree. As a Conservative, I believe we have a duty to protect, preserve and enhance the natural environment for the next generation and in order to do so we must begin to work it into every area of public life. Change has long been due in our justice system, with prisons across the country experiencing controversy, reform must follow and best practice must be shared across the sector.

When discussing the criminal justice system minds immediately drift to imprisonment, but this is only one method of punishing offenders for their crimes and protecting the public. Imprisonment itself does not help to reduce re-offending rates. To do so, focus must also be on improving skills and employability and removing the barriers that can impede successful rehabilitation and reintegration into the community. This is where environmental schemes can have a really positive impact as they not only benefit the offender and the natural environment but also have a wider public value



as well. There are already examples where the justice system is working closely with nature for the good of both community and individuals which we must learn from. This link must be acknowledged, explored and fully exploited. I wish to draw on just a few examples of best practice to highlight how holistic approaches can have a multitude of positive outcomes.

The Forestry Commission runs an Offenders and Nature (O&N) scheme, with offenders typically working as volunteers on nature conservation and woodland sites. They get to work on tasks such as creating and maintaining footpaths, building boardwalks, establishing ponds and opening up dense vegetation to create more diverse habitats. Those on a community sentence often work for one or two days per week and those who are serving a custodial sentence tend to work full time in the last 6-9 months of their prison sentence. O&N schemes are seen as reparative work that benefits the community whilst at the same time providing experience of teamwork, life and skills training to offenders and also boosting their confidence and self-esteem through the worthwhile and visible tasks. The O&N scheme has been proven to be cost effective whilst at the same time addressing several of the underlying factors that contribute to re-offending. The public benefit is unquestionable.

Phoenix Recovery are a charity that work with people both in and out of prisons who struggle with drug and alcohol addiction. Supported by the National Lottery they run a Recovery through Nature programme that aims to connect people using the services of the charity with nature in order to assist their recovery. Those involved with the programme work as a team on practical conservation projects across England and Scotland. Recovery through Nature challenges participants to take ownership of conservation activities, work in a natural environment and work in real life situation. Those who participated in the programme achieved a 41% higher success rate than the national average and opiate users achieved a 75% higher successful completion rate than the national average. Bringing people closer to nature and helping them to take control of their lives empowers individuals and rebuilds communities.

Write to Freedom runs a number of creative programmes in the field of recovery and rehabilitation bringing together creative writing, wilderness adventures and mentoring. The programme runs on the principle of creating a community or village feel with particular courses taking place in beautiful and inspiring places,

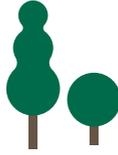
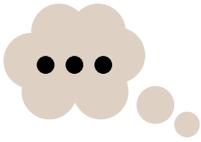


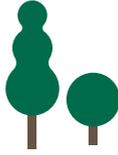
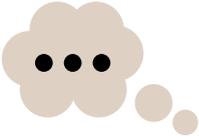
giving participants the chance to connect not only with nature but also with others in a supportive environment. Write to Freedom work with three key client groups: people in recovery from addiction, prisoners and their families and young offenders. The courses are entirely voluntary and run on the basis that those taking part want to participate. The programme has seen some excellent results to date. The impact that a natural environment, improved skills and a community feeling can have on rehabilitation is remarkable and cannot be neglected.

Many prisons today are dated and industrial in nature with little or no access to green space. However, there are some schemes out there trying to change this having recognized the payback of connecting prisoners to nature. The Eden Project has teamed up with Dartmoor prison to transform a disused exercise yard into a gardening project within the resettlement unit. An initial grant of £15,000 was given to set up the project, but there are hopes that the gardens will become self-sufficient with local residents buying the vegetables, flowers and eggs as well as them being sold in the prison shop. These sorts of schemes are beginning to crop up in prisons across the country. The Conservation Foundation, for example, is about to start a Gardening against the Odds project in Wandsworth prison. The project will extend across three exercise yards currently covered in asphalt and will bring together, prisoners, staff, members of the local community, leading horticulturists and environmental groups. Positively engaging with our environment and our communities can produce rewarding long-term results.

There is no one size fits all solution for rehabilitation; we must follow the evidence and encourage the spread of best practice. It remains incumbent on the justice system to rehabilitate offenders and environmental engagement is making a positive contribution towards this. Research shows that contact with nature can reduce symptoms of poor mental health and stress as well as violence, aggression and anti-social behaviour. Creating a stable and sustainable model for rehabilitation should be founded on what works – the environment must form a part of that.







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Rebecca Pow (MP Taunton Deane) has lived in Somerset all her life. She comes from a long line of Somerset farmers. A scientist by training, Rebecca was a journalist and broadcaster specialising in environment, farming and gardening working for the BBC, ITV and Channel 4. She also ran a communications business before becoming an MP.

In Parliament Rebecca was a member of both the Environmental Audit Select Committee and the Department of Environment, Food & Farming Select Committee before becoming a Parliamentary Private Secretary in the Department for the Environment Food and Rural Affairs. This followed a period as the Parliamentary Private Secretary to the Housing and Planning Minister, Gavin Barwell. She is Chair of both the Ancient Woodland and Trees and the Animal Welfare All Party Groups. At home she enjoys gardening for wildlife.

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