

The Green Industrial Revolution needs Green Industrial Regulation

In July, US President Joe Biden said: "When I hear the words climate change, I hear the word "jobs".

In September, President Xi Jinping pledged China would achieve carbon neutrality before 2060.

In November, the UK Prime Minister Boris Johnson published a ten point plan for a Green Industrial Revolution, mobilising £12 billion of investment and supporting up to 250,000 British jobs to achieve net zero.

We are in a race.

Nations that help businesses decarbonise and prepare infrastructure for climate impacts fastest win investment.

Industries the Environment Agency regulates tell us a strong framework of green legislation gives them an economic advantage over global competitors.

Operating within England's environmental regulations should be an assurance that a business is working to some of the highest standards on the planet.

This has a global snowball effect, if businesses prove profitable environmental improvements in one jurisdiction, they can demonstrate an operating model that can be scaled-up elsewhere.

Setting an example is important.

At the Environment Agency, we are using our activities and supply chain as a laboratory to find new ways to reach net zero, such as low carbon concrete for flood defences.

We have achieved a 47 percent reduction in our own direct emissions in the last 14 years, and are pushing ahead with our own 2030 net zero goal.

We will reduce our emissions by a further 45 percent by 2030, and address the effect of our remaining emissions through offsetting.

As our regulation helps business reach net zero, we will use our operations and supply contracts to help companies innovate and set an example.

In the 2 years between January 2017 and December 2018, the Climate Change Agreements the Environment Agency administers saved about 45,653 gigawatt hours of power, equivalent to 9 million tonnes of carbon dioxide, or enough energy to supply over 2 million homes a year.

Since 2010 emissions of greenhouse gases from the sites we regulate under the Environmental Permitting Regulations have decreased by 43 percent.

The Environment Agency has now begun to operate the new UK Emissions Trading Scheme.

We have worked with BEIS and the Devolved Administrations to shape the new regime, and there is an opportunity to go further.

Significant carbon reduction has happened in the UK with the switch to renewable energies.

For instance, the UK has the largest installed capacity of offshore wind in the world, with around 10 gigawatts in operation off its coasts.

The Environment Agency is ready to regulate new nuclear power, including the possibility of Small Modular Reactors.

We're also developing our regulatory role and guidance to meet the new demand in hydrogen, with an ambition to replace natural gas in domestic supply.

And, we are preparing for a range of greenhouse gas removal technologies such as carbon capture and storage, which – when combined with biomass – has the potential for much-needed negative emissions.

Enabling such new technologies will help the Government's levelling-up agenda, as the focus will be on regeneration, and resilience, in industrial clusters up and down the country.

Good regulation provides proof.

For investors to measure the success of projects by their green credentials, they want metrics of the sort provided by environmental regulators.

In markets flooded with greenwash, people want science-based unbiased monitoring of companies' performance.

The 10 point plan for a Green Industrial Revolution calls for over £30 billion of private capital to support the Government's investment by creating investable markets.

Regulation underpins carbon markets by providing accurate and transparent monitoring and reporting which provides assurance that a tonne of greenhouse gas is demonstrably a tonne of greenhouse gas, wherever it is emitted or removed from the atmosphere.

In 2019 we delivered over 98 percent compliance in the 5 major energy efficiency and emissions trading schemes we administer. They cover over 40 percent of the UK's carbon emission from industry, business and the public sector.

Equally, well performing water companies celebrate success in the Environment Agency's Environmental Performance Assessment of the water and sewerage companies, because they know that investors and customers trust its findings when they see them reported in the media.

Good regulation works.

Last week, the Environment Agency's Regulating for People, Environment and Growth 2019 report showed many improving trends in environmental compliance, pollution incidents, crime, and emissions.

In 2019, the Environment Agency stopped illegal waste activity at 940 sites, 3 percent more than the previous year.

In 2019, the number of serious pollution incidents fell 12 percent from the previous year, and waste recovery or reuse at permitted sites has improved to a record 74 percent.

It also showed that emissions of air pollutants have fallen significantly since 2010: nitrogen oxides by 63 percent, PM10 particulates by 34 percent, and sulphur oxides by 81 percent.

Acid rain was a major concern 20 years ago but – as a result of environmental regulation, and over a 90 percent reduction in sulphur oxide emissions from regulated industry – it is no longer a feature of life here.

Good regulation delivers fairness.

Permitting and licensing activities enable businesses to carry out their operations.

Robust regulation provides the level playing field legitimate businesses need to prevent being undercut by irresponsible, or illegal operators.

A central tenet of environmental regulation is that the polluter should pay.

No regulation works unless there is a threat.

Farming is an extremely diverse sector in terms of activities and income.

For the intensive pig and poultry sector – where the Environment Agency can carry out regular visits because we can charge farmers for permits to operate – there were only 4 category 1 and 2 pollution incidents in 2019.

But, pollution problems are rife in the dairy and intensive beef farming sectors. The sectors also contribute around half of the UK agriculture greenhouse gas emissions and ammonia emissions- a key reduction target under the Government's Clean Air Strategy.

These are largely an outcome of the tough economics of the food system, compounded by rising climate impacts.

But, they are now being exacerbated because the Environment Agency lacks the resources to tackle such incidents in dairy and intensive beef farming where we have almost 3 times more pollution incidents than we can do proactive regulatory visits to prevent them.

When polluters don't think they will be caught, or have to pay, there is no

deterrent.

At the other end of the economic spectrum there is lack of deterrent for the largest companies in all sectors.

Fines for environmental crimes are disproportionately small compared to, for example, breaches in financial services.

Fines need to hurt.

Even Thames Water's £20 million fine was only ten days' worth of operating profit.

And, I know of one waste company that threw huge legal resources at challenging a fine that amounted to less than one year of the Chief Executive's annual cash bonus.

That is not what a system that puts the environment at the heart of the economy looks like.

Economic turnover penalties are the next natural step if, after fair warning, large companies do not turn around their performance.

This means the most serious breaches by very large companies would be based in the future on a percentage of turnover of the company.

Below this I would like to see the criminal courts apply penalties consistently and proportionately.

Anything less is no deterrent.

Dr Rhian-Mari Thomas, Chief Executive of the Green Finance Institute, said in reaction to The Dasgupta Review on the Economics of Biodiversity:

"So far, the 'E' in ESG [Environmental Social Governance] has primarily been a 'C' for climate, but we cannot solve the climate unless we solve for nature. They are two sides of the same coin. We need to look at nature risk in the same way we do for climate – as a systemic risk to the financial system."

At the Environment Agency we're looking into a range of Nature-Based Solutions as an advisor to industries we regulate.

Activities that lock in carbon – like tree planting, restoring peatland, managing soils, wetlands and saltmarsh – offer decarbonising opportunities in addition to creating resilience to flood risk, supporting biodiversity, and providing health and wellbeing benefits to communities.

The public health costs of air pollution (not to mention flooding, heatwaves and noise pollution) runs into the billions.

Investing in environmental regulation would provide major benefits to the NHS.

The Environment Agency's regulatory work has led to £5 billion of investment from the water companies over five years to improve rivers and groundwater.

The Office for National Statistics says freshwaters, which include surface waters and groundwaters, are worth at least £40 billion to the economy.

In 2019, 98.3 percent of bathing waters on the coast met or exceeded the minimum standard and more than 70 percent were rated as excellent.

Maintaining high quality bathing waters benefits health and wellbeing as well as boosting local economies.

There were 135 million day visits taken to the seaside in England in 2019, worth £5.8 billion to the economy.

The decision to designate the River Wharfe at Ilkley as a bathing water marks a first for England, and we look forward to the challenge of working with partners to improve the river to bathing waters standard.

Today's report from the Aldersgate Group finds that regulations in the construction, waste and automotive sectors have delivered growing business investment in innovation, new products and services, job creation and skills.

It recommends that environmental regulations and standards do not sit in a silo.

To be economically and environmentally effective, environmental regulations should be carefully joined up across sectors, and with the UK's overall industrial strategy.

It says they should promote high degrees of resource efficiency and be accompanied by investment in supporting infrastructure (such as charging points for electric vehicles), research and development, skills and market access.

I agree.

We have everything to gain from realising the strengths of the connections between trade, climate change and nature recovery – in terms of jobs, green goods, services, and technologies.

Tomorrow, in the Budget, the Chancellor is expected to confirm £22 billion to fund a national infrastructure bank that will fund £40 billion of infrastructure projects.

That infrastructure needs to be resilient to climate shocks.

The Chancellor is also expected to confirm the world's first sovereign green savings bond, which will invest £20 million in offshore wind, £70 million in long-term low-carbon energy storage and £4 million to boost the production of green energy crops.

As the economy recovers from the coronavirus pandemic, the investment

community cannot ignore the direction of travel.

In this year of crunch climate negotiations, when the UK Government hosts the G7 and COP26, the race to zero and the race to resilience have already started.

Now, the UK could also fire the starting gun on a global economic race to raise the trillions needed to tackle the climate emergency and restore nature.

But, to underpin this vital trajectory in the UK's fortunes we need strong environmental regulation.

Environmental regulators need to keep in lockstep with economic and financial regulators, outpacing climate change and matching the scale of the challenge.

Environmental regulation – through its example, enforcement, monitoring and metrics – can support profitable green industry here and demonstrate market effectiveness everywhere, so that no country gets left behind in this century of climate opportunity.

But, if the polluter isn't made to pay, that aspiration will wither on the vine.

We will only get the environment the whole country is prepared to pay for.

The Green Industrial Revolution needs strong Green Industrial Regulation.