

D I A L O G U E

# BREXIT AND ENVIRONMENTAL LAW

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## SUMMARY

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The United Kingdom's departure from the European Union is anticipated to have a breadth of impacts on its environmental law and policy. Proponents point to opportunities ahead for the government to draft and enact U.K.-specific environmental laws and regulations that are more attuned to issues facing the country. Others believe the departure could lead to deregulation, a lack of consistency and stability, and potential decreases in advances made. On February 3, 2020, the Environmental Law Institute hosted an expert panel that explored these implications of the U.K.'s departure, the role the U.K. will play in meeting the Paris Accord goals, and the looming challenges and areas of opportunity. Below, we present a transcript of the discussion, which has been edited for style, clarity, and space considerations.

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**Miriam Aczel** is a President's Scholar Ph.D. candidate at the Centre for Environmental Policy, Imperial College London.

**Begonia Filgueira** is a Partner at Acuity Law, Founder of the Environmental Regulation and Information Centre, and Co-Chair of the Brexit Task Force of the U.K. Environmental Law Association.

**Markus Gehring** is University Lecturer and Director of Studies (Law) at Hughes Hall, University of Cambridge; a Fellow at the Lauterpacht Centre for International Law; and Lead Counsel for Trade, Investment, and Finance at the Centre for International Sustainable Development Law.

**Ambereen K. Shaffie** is President and Managing Partner at Shaffie Law and Policy.

**Sarah Williams** is Head of the Greener UK unit.

**Caitlin McCarthy:** I'm delighted to welcome everyone to this *Breaking News* webinar. It is an honor to have you all joining us for this special program.

I would like to welcome Miriam Aczel, a President's Scholar Ph.D. candidate in the Centre for Environmental Policy at Imperial College London. Her research focus is on the environmental and health impacts of hydraulic fracturing in the United States, the United Kingdom (U.K.), and the European Union (EU), and the role of public participation and citizen science in international energy policy.

Begonia Filgueira is a partner at Acuity Law and founder of the Environmental Regulation and Information Centre, a solicitor in the Senior Courts of England and Wales, a Spanish *abogada*, and the co-chair of the Brexit Task Force with the U.K. Environmental Law Association (UKELA). She is a specialist advisor in environmental law, treaty reform, the implementation of EU directives, international law, and infringements.

Dr. Markus Gehring of the University of Cambridge Faculty of Law is an expert in the Centre for European Legal Studies, a fellow and director of studies in law at Hughes Hall, and a fellow of the Lauterpacht Centre for International Law. In the politics and international studies department at Cambridge, he serves as an affiliated lecturer in European and international law.

Ambereen K. Shaffie is an attorney with expertise in international environmental law and policy, treaty law and negotiations, energy policy, energy efficiency, short-lived climate pollutants, and strategies to accomplish national environmental energy and climate commitments, as well as litigation. She founded Shaffie Law and Policy, a firm that specializes in international environmental law.

Sarah Williams is head of the Greener UK unit, which coordinates and drives forward the Greener UK coalition's work, campaigning with partners across the environmental sectors to influence the Brexit negotiations and related law and policy. She was previously the public affairs manager at the Aldersgate Group, and prior to this, she worked in Parliament as a special adviser to Tim Yeo, former member of Parliament and chair of the Energy and Climate Change Committee.

The U.K.'s departure from the EU is anticipated to have a breadth of legal impacts, especially on national environmental law and policy. EU directives serve as the foundation for a large contingent of environmental standards, environmental protection regimes, conservation schemes, and enforcement in the U.K. Additional looming implications include those at the interface of agriculture and the environment, business and trade implications, sustainability efforts, renewable and traditional energy development, the Paris Accord and other climate goals, and a variety of multinational treaties and directives. The anticipated impacts are enormous and far-reaching.

Proponents point to the opportunities ahead for government and policymakers to draft and enact U.K.-specific

environmental laws and regulations that will be more attuned to the issues facing the U.K. The flexibility allows for opportunities to arise from a clean slate for environmental law and regulation, yet it also poses significant challenges. Others believe the departure from the EU could lead to deregulation, a lack of consistency and stability with current rules and regulations, and potential decreases in the advances made, especially with regard to renewable energy development.

So, where are we now? The U.K. Brexit bill<sup>1</sup> has completed its passage through the House of Commons and the House of Lords and has received royal assent. The European Parliament has formally agreed to the withdrawal deal of the U.K. leaving the EU as of January 31, 2020. The U.K. is now in a transition period that is scheduled to end on December 31 of this year. With that, I will turn things over to Sarah.

**Sarah Williams:** I'm the head of the unit that runs Greener UK, which is a coalition of 13 major environmental organizations here in the U.K. with a combined public membership of more than eight million people. We came together to ensure that environmental protections are maintained and enhanced during the Brexit process, particularly through the introduction of ambitious domestic legislation. As mentioned, on Friday, January 31, at 11:00 p.m., the U.K. left the EU, and obviously we're here today to try to set out what this means for environmental policy and legislation in the U.K. going forward.

I will touch briefly on the political situation here and explain what the U.K. prime minister and government have said are their intentions when it comes to the environment. I'll then go through the bills that the government has published in the past couple weeks. I should make clear at the start that things are moving pretty quickly and remain in quite a lot of flux. We are up against the clock again to negotiate a new future relationship with the EU. We've seen the European Commission publish its draft negotiating mandate,<sup>2</sup> and the prime minister set out his objectives for the wider trade negotiations and the European ones specifically.

So, yes, it's quite a busy moving picture. Clearly, through our membership at the EU we were able to enjoy high standards in areas such as habitat protection, product safety, and chemicals. We obviously developed these standards with our European neighbors and now benefit from cleaner beaches, safer food, and the best chemical regulations in the world. Thus, leaving the EU, particularly as we are significantly diverged from EU rules and regulations, leaves a lot of unanswered questions for the environment.

Now, the government and the prime minister have been very clear that environmental protections will not be compromised going forward. Their Conservative Party

manifesto for our general elections<sup>3</sup> last year included the commitment that the government would legislate to ensure high standards of environmental protection and would actually pursue the most ambitious environmental program of any country on earth. We have certainly seen that they are prioritizing new environmental legislation and an agriculture bill,<sup>4</sup> a fisheries bill,<sup>5</sup> and an environment bill<sup>6</sup> have been published in just the past two weeks alone.

Also, a good point to mention is that the U.K. will be hosting the 26th Conference of Parties (COP26) this year,<sup>7</sup> the most important climate change conference since the one held in Paris in 2015. We need to see a global uplift in ambition to tackle climate change. Unfortunately, last week we saw the COP26 president, Claire O'Neill, lose her job. But we understand the prime minister will still launch the U.K. strategy for these crunch climate change talks at an event with Sir David Attenborough.<sup>8</sup> It's clearly a priority for the U.K. government and it will be one of the first avenues to really show what post-Brexit Britain means to do on the global stage. Obviously, we're very pleased he's focusing on such an important topic.

Yes, there have been a number of statements from the prime minister and other government ministers about not weakening environmental protections going forward and even enhancing environmental standards that we currently enjoy. But unfortunately, we have no legal certainty about these matters. The government has declined to ensure that environmental standards were maintained in the bill that gave legal form to the recent Withdrawal Agreement. And they included some provisions in the recently published environment bill that are a tiny step forward but provide no legal guarantee that standards will be maintained. I'll touch on that more later.

I mentioned that three bills have recently been published. This is clearly a busy period for environmental policy in the U.K. I'll go through these three bills in turn. First, we have the agriculture bill. It's necessary because the U.K. is now leaving the Common Agricultural Policy,<sup>9</sup> which is the EU's agricultural support scheme that basically pays farmers according to how much land they own. Actually, being able to leave the Common Agricultural Policy is the real clear environmental benefit of leaving the EU that we can see thus far. This new bill will establish a new system where farmers receive financial support for providing public goods. These are services society needs farmers to provide but that are not normally paid for through the market.

3. GET BREXIT DONE UNLEASH BRITAIN'S POTENTIAL: THE CONSERVATIVE AND UNIONIST PARTY MANIFESTO 2019 (2019), [https://assets-global.website-files.com/5da42e2cae7ebd3f8bde353c/5dda924905da587992a064ba\\_Conservative%202019%20Manifesto.pdf](https://assets-global.website-files.com/5da42e2cae7ebd3f8bde353c/5dda924905da587992a064ba_Conservative%202019%20Manifesto.pdf).

4. Agriculture Bill 2019-21, HC Bill [106] (UK).

5. Fisheries Bill 2019-21, HL Bill [71] (UK).

6. Environment Bill 2019-21, HC Bill [9] (UK).

7. Originally scheduled for November 2020, COP26 was indefinitely postponed on April 1 due to the coronavirus pandemic.

8. Press Release, Prime Minister's Office, PM Launches UN Climate Summit in the UK (Feb. 4, 2020), <https://www.gov.uk/government/news/pm-launches-un-climate-summit-in-the-uk>.

9. European Commission, *Common Agricultural Policy*, [https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy\\_en](https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy_en) (last visited Mar. 17, 2020).

1. European Union (Withdrawal Agreement) Act 2020, c. 1 (UK).

2. *Recommendation for a Council Decision Authorising the Opening of Negotiations for a New Partnership With the United Kingdom of Great Britain and Northern Ireland*, COM (2020) 35 final (Feb. 3, 2020).

They include restoring habitat, providing cleaner water, improving the quality of soil, ensuring high standards of animal welfare, and using carbon storage and sequestration, among a number of others.

Importantly, this bill will help farmers restore nature and mitigate carbon emissions while also producing the food that we need. Obviously all crucial outcomes, given the urgent need to address some of the current and major crises we're facing. The transition to this system will commence in 2021, although it will be a long transition period.

This bill is really ambitious. We do still have a few concerns. Despite pledging to maintain the U.K.'s high food standards, the government hasn't put this commitment into the agriculture bill. Concerns are high in the U.K. that standards in areas such as food safety in particular and animal welfare could be compromised through new trade deals, which would be a missed opportunity.

Yes, the bill should secure, we would argue, legal safeguards on environmental, food safety, and animal welfare standards of food imports to ensure that farmers in the U.K. are not undercut by imported food produced to lower standards. That's something that all the environmental organizations I work with are in full agreement on with the farming union here, which isn't always the case.

The bill also needs to build on what the Conservatives promised in their manifesto—to maintain funding. We need to see a long-term funding framework that provides certainty that farmers need to have the confidence in these reforms. Because they are really, really big reforms, this is basically a once-in-a-generation opportunity to move toward a much more sustainable food and farming system.

Moving on to the fisheries bill, it's a framework bill that allows the U.K. to operate as an independent coastal state having left the EU. We can expect fisheries to be a highly sensitive topic for the future relationship negotiations with the EU, with focus particularly on access to our waters and how fishing quotas are divided up. There's critical concern over these sorts of issues. It means that the really serious concerns about the sustainability of fish stocks are often overshadowed in public debates. Unfortunately, more than 40% of all U.K. fish stocks were overfished in 2019, up from 31% in 2018.<sup>10</sup> The Marine Stewardship Council suspended the sustainability certification for iconic North Sea cod last October after scientists called for its catch to be reduced by two-thirds due to the plummeting stocks.<sup>11</sup>

Actually, the Conservative Party acknowledged the need to improve the health of fisheries and so, again, pledged in their election manifesto to establish legal commitments to fish sustainably and a legal requirement for plans to achieve the maximum sustainable yield for each stock (the amount

that we can fish to make sure that the stock remains healthy going forward).

Unfortunately though, the recently published bill actually represents a regression in environmental standards compared to the EU's Common Fisheries Policy.<sup>12</sup> It removes the legal commitment to set catch limits at maximum sustainable yield—that really important aim by 2020. It is replaced instead by a simple aspirational objective to achieve healthy biomass for stocks. And this objective isn't legally binding. It's not subject to any deadline and is dealt with through the use of a policy statement, which unfortunately can be disregarded in a wide range of circumstances such as socioeconomic considerations. Obviously, that is something we'll be working really hard at Greener UK to improve on during the passage of the bill through Parliament.

Now, on to the environment bill, which is an absolutely vital piece of legislation. Its core focus is to ensure that there will be no environmental governance gap with the U.K. having left the EU. But more than that, it's a crucial opportunity to create a governance framework that is as robust, long-term, and world-leading as the U.K.'s Climate Change Act.<sup>13</sup> A number of parts are genuinely required because of Brexit. The environmental principles found in the treaties of the EU that have driven policy and decisionmaking, such as the precautionary principle and the polluter-pays principle, have not yet been transferred into U.K. law, so they are included in the environment bill. Although I should say that these clauses do need proper amendment in order to ensure that the legal effects of the principles are not significantly weakened going forward.

The bill also addresses the enforcement of environmental law in the U.K. by establishing the new Office for Environmental Protection (OEP), which is something that Begonia will talk about in more detail. Excitingly, the bill also puts in place a framework to set long-term environmental improvement targets, initially for water, air, resources and waste, and nature, but hopefully in more areas in the future.

Clearly, the long-term nature of environmental issues makes this particularly important. Halting and reversing the loss of nature and enhancing the environment can't be achieved over the short time frame of a single five-year Parliament. Actually, we've had a lot shorter Parliaments recently, so the need for long-term policy stability is quite important.

Putting targets into law will give them certainty and provide clarity that will benefit everyone, particularly businesses, and drive long-term investment in environmental improvements. Again, as a coalition, we'll be focused on ensuring that these targets are ambitious and that all of government takes action in good time to ensure that they are delivered.

As I briefly touched on at the start of my comments, if the government is serious about its repeated verbal com-

10. Letter from Lord Boswell of Aynho, Chairman, House of Lords European Union Committee, to Robert Goodwill, Minister of State for Agriculture, Fisheries, and Food, Department for Environment, Food, and Rural Affairs (Mar. 13, 2019), [https://www.parliament.uk/documents/lords-committees/eu-energy-environment-subcommittee/scrutiny-2017-19/fishing-opportunities/13731\\_18LBtoRG-2019fishingopportunities-13.03.19.pdf](https://www.parliament.uk/documents/lords-committees/eu-energy-environment-subcommittee/scrutiny-2017-19/fishing-opportunities/13731_18LBtoRG-2019fishingopportunities-13.03.19.pdf).

11. Press Release, Marine Stewardship Council, North Sea Cod to Lose Sustainability Certification (Sept. 24, 2019), <https://www.msc.org/media-centre/press-releases/north-sea-cod-to-lose-sustainability-certification>.

12. European Commission, *The Common Fisheries Policy (CFP)*, [https://ec.europa.eu/fisheries/cfp\\_en](https://ec.europa.eu/fisheries/cfp_en) (last visited Mar. 17, 2020).

13. Climate Change Act 2008, c. 27 (UK).

mitments to maintaining and indeed enhancing environmental standards, then it must include a legal commitment to this effect in their flagship bill on the environment. Currently, it doesn't. It has proposed that the secretary of state (the U.K. minister in charge of the environment) will make a statement when introducing new bills that in their view it will not have the effect of reducing the level of protection provided for by existing environmental law. Or if they cannot make that statement because they would actually be weakening it, they wish the House of Commons to proceed with that piece of primary legislation anyway.

This clearly fails to provide a guarantee that standards will not be weakened. At the very least, you'd hope Parliament would have the opportunity to have a say about the bill going ahead. There is a lot to be improved on there.

The bill also places an obligation on the secretary of state to produce a report on significant developments in international environmental legislation every two years, which is actually pretty helpful. It will be interesting to see whether the secretary of state is the right person to write that report. But it's clearly not a substitute to committing in legislation to maintaining the high standards that we currently enjoy.

I have a few final things I'll say on the environment bill. Most of it applies only to England. But it will need a coordinated, ambitious approach to environmental governance and improvement across the whole of the U.K. It's never been more important than now. We need to make sure there are effective environmental governance arrangements across all four countries that make up the U.K.

Lastly, for the bill to succeed, it also requires a step change in funding for local government, the new OEP, and also the frontline delivery agencies that we have in the U.K. such as Natural England and the Environment Agency. We need government to provide the level of resources that matches the scale of its ambition on these bills and also the task of delivering all these new environmental programs that are included in them.

To wrap up, the U.K. government has been very clear that it intends to remain a world leader on the environment after Brexit—that we'll maintain, if not enhance, environmental protections. It has a very large program of environmental legislation on the go: the environment, agriculture, and fisheries bills at the moment, which actually, if made stronger in a number of areas, could start delivering the change needed to properly tackle the climate and nature emergencies that we're facing.

But some really big questions remain, largely owing to the shape of our future relationship with the EU and our other trading partners. It's now vital that the government agrees to a future relationship with the EU based on close environmental cooperation, and puts the highest possible standards at the forefront of its trade policy going forward. Obviously, at the very least, it must put a commitment to maintaining our current environmental standards in legislation, and so far it has failed to do that.

**Markus Gehring:** I want to come back to the question of Brexit. We all know that the Withdrawal Agreement that the Boris Johnson Administration negotiated has

entered into force. I want to highlight some of the features that might impact how we see environmental law going forward.

First of all, the major change from the May Withdrawal Agreement to the Johnson Withdrawal Agreement was that the U.K.-wide backstop had been taken out of the agreement. The U.K.-wide backstop was a way to avoid the hard border on the island of Ireland, and of course committed the entire U.K. to a high standard of environmental protection. For example, it contained the commitment to carbon pricing, not necessarily to the EU Emissions Trading System (ETS), but rather some form of carbon pricing, generally a level playing field. Most importantly, there was a commitment in that backstop to non-regression.

All of these elements have now come out, and the Northern Ireland-only backstop has been basically designed as an almost permanent mechanism. That's interesting from an environmental point of view because in the transition period until December 31, 2020, unless it's extended, we don't have major changes to the way EU law operates in the U.K., with some exceptions. For example, the U.K. now has the ability to negotiate fisheries agreements, to negotiate trade agreements, but, by and large, the vast majority of EU law remains applicable. But after that, it is expected to be replaced by the new relationship set out in the Political Declaration and set out on February 3 by the two sides. The U.K. prime minister announced that he wishes a loose free trade agreement like the Canada-EU Comprehensive Economic and Trade Agreement, and the EU wishes to maintain a level playing field.

The EU side, I should say from the outset, will have a very strong negotiation position; it will conduct the trade negotiations with the U.K. from the point of view that the U.K. shares a common biosphere with the rest of the EU. We can debate whether scientifically that's entirely correct given that the U.K. is an island nation, but it certainly shares a land border with Ireland, and the atmospheric and maritime spaces are definitely shared. So, expect the EU to negotiate very hard on a non-regression commitment by the U.K. like the one the U.K. government had already agreed to in the overall U.K. backstop.

It would be interesting for environmental practitioners to look at the Northern Ireland Protocol because from January 1, 2021, if there *is* no free trade agreement, then this new cliff edge exists. There will be no commitment to follow EU rules by the rest of the U.K., but Northern Ireland will have to comply with a large swath of environmental rules, such as rules on genetically modified organisms and rules governing the electricity sector. And that includes the application of the ETS, the climate change emission trading system for Northern Ireland.

That is the legal situation after the Withdrawal Agreement. The Political Declaration is a wonderful piece of diplomatic language. Anyone can read anything into that Political Declaration, because it's not legally binding as such. It doesn't allow us to predict what the future relationship on the environmental side might look like. Of course, the environmental community hopes that it doesn't lead to a bonfire of environmental rules and regulations. But

the U.K. prime minister announced on February 3 that he would negotiate with the EU to maintain the possibility of having their own regulatory standards, going forward, on the environment.

We'll have to watch the space. I think the EU will emphasize the common biosphere, the shared biological space with the U.K., very heavily. We'll need to see their set of really interesting proposals that could maybe be a blueprint for other trade agreements going forward. At the moment, there is perfect regulatory alignment, so anything the U.K. and the EU agree to will be less than that. But of course, if the U.K. wants to diverge from, for example, environmental standards, well then free trade in those areas where these environmental standards are relevant would probably not be granted by the EU.<sup>14</sup>

**Begonia Filgueira:** I'm a practicing environmental lawyer. I'm also co-chair of the UKELA Brexit Task Force. UKELA is the association that represents environmental lawyers and environmental consultants. We have members from government and so on. We have 1,200 members. We're the largest legal environmental association in the U.K.

Our remit is to make the law work for a better environment. Of course, any changes or developments in environmental legislation are of great interest to UKELA. We are active as a watchdog in terms of finding out what the issues would be if we Brexited and publishing a number of reports.<sup>15</sup>

What I'm going to talk about follows both on Sarah's and Markus' talks. I'm going to talk about the OEP, which is the new regulator that's been proposed in the environment bill. Its remit is to substitute for the European Commission. But actually it has gone a lot further.

To pick up on Sarah's point, environmental legislation has really moved forward while a lot of other pieces of legislation in this country have stayed behind. I think that has to do with Greener UK, UKELA, a lot of environmental bodies watching what the government has been doing and not getting lost in the politics of it all, but thinking how can we ensure, when we Brexit, which now is a certainty, that we're in a transition or implementation period? How can we ensure that environmental law doesn't suffer, and therefore the air, the water, and the land doesn't suffer in the U.K.?

To backtrack a bit on the position of the European Commission, it had a function of ensuring that the U.K. implemented environmental law both through directives and regulations. So, the Commission would watch and say, for example, you haven't implemented the Landfill Directive<sup>16</sup> correctly; please do so. Or you haven't implemented

the Air Quality Directive<sup>17</sup> properly in your national jurisdiction; please do so. The Commission could, in fact, bring infraction proceedings against a Member State for non-implementation of environmental law or law in general. A country could be fined. There's been a lot of case law where countries have been fined for non-implementation—the U.K. with the Air Quality Directive, for example.

This new OEP, which it looks certain is going to have pretty much the same form as it appears in the bill, will have an executive and a non-executive committee. It will have quite a large staff of 120 people. The plan is for it to start work in 2021. And it's going to be a public corporate body that scrutinizes public authorities.

So actually, it's not about directly regulating businesses, but it's ensuring that public authorities follow the law and are implementing the law correctly. When I say public authority, we're talking about ministers or local authorities, local councils in the U.K. The chair will appoint the executive board, and it's financed by the Department for Environment, Food, and Rural Affairs (Defra). So, the minute the secretary of state for environment will appoint the chair, and it's financed by Defra, there's issues of whether it's independent enough or not. We can talk about that later. Let's talk about its functions.

First of all, its objective is to protect and improve the natural environment. That was a new amendment, which, again, was lobbied into the legislation. Here, the natural environment means plants, wild animals, habitats, and land. Again, due to lobby pressure, the government has included climate change as one of the things that the OEP will be regulating. It will sit along with another regulator for climate change, which is the Climate Change Committee. But the Climate Change Committee has no enforcement functions, and the OEP does. It has to follow a number of values, be objective, impartial, proportional, and so on. Its functions are to monitor the implementation of environmental law and particularly the environmental improvement programs that Sarah spoke about, advising the minister if the minister wishes to ask the OEP about how to improve things or when there are problems.

Finally, it's the enforcement function, and basically, the OEP could serve information and decision notices and ultimately bring proceedings against the public authority if it's in breach of environmental law or if it doesn't implement environmental law correctly. One of the key things the OEP is going to need is strategy. I think the OEP is basically going to sit on top of the Environment Agency, Natural England, and other statutory bodies that we have here.

Therefore, it's really important that it has a focused strategy. It's not repeating the functions of these other regulators. It's only going to intervene when the failure to implement or the failure of an authority has been of national importance; it has to be ongoing conduct. The conduct has to raise serious harm to the environment,

14. See MARKUS GEHRING & FREEDOM KAI PHILLIPS, LEGAL OPTIONS FOR POST-BREXIT CLIMATE CHANGE AND ENERGY PROVISIONS IN A FUTURE UK-EU TRADE AGREEMENT (2019), available at [https://www.cisd.org/wp-content/uploads/2019/07/Post-Brexit\\_Provisions\\_report\\_final.pdf](https://www.cisd.org/wp-content/uploads/2019/07/Post-Brexit_Provisions_report_final.pdf).

15. Reports are available at <https://ukela.org>.

16. Council Directive 1999/31/EC of 26 April 1999 on the Landfill of Waste, 1999 O.J. (L 182) 1.

17. Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on Ambient Air Quality and Cleaner Air for Europe, 2008 O.J. (L 152) 1.

and it also may raise a general point of environmental law. So here, we're talking about the rule of law or environmental democracy.

To think of an example of where the OEP could take action—and it's very important to say this actually—the OEP can receive complaints from people, from nongovernmental organizations (NGOs), from citizens. It won't accept any complaints by a public authority. So, it can't be one public authority complaining against another. But if we think that, for example, the government has delegated to local authorities in the U.K. the obligation to implement local air quality plans, air quality zones, and to bring down carbon emissions and air pollution, say, if there were a number of councils that were failing to implement this strategy, then someone could complain to the OEP. That would be seen as an ongoing conduct. It would be seen as a national strategy because it's across the board in the U.K. So, it's going to have a good strategy. But there are exceptions. It can't regulate Parliament or the armed forces or the judiciary. It won't be a regulator and it won't be overseeing what the courts do here in the U.K.

There's a really important thing that appears in the bill, which is that public authorities have a duty to cooperate with the OEP. I think this sets the flavor for the whole of the aim that the government has had with the OEP and Defra, which is not to make it a really aggressive body, but it's a body that's going to seek information when there's a potential breach or non-implementation.

It's going to try to ask questions, make recommendations, and assist to reach compliance before taking enforcement action through the courts. The public authorities have a duty to support the OEP in exercising their functions and to give them reasonable assistance and to provide information. That sets the scene of how we would like this OEP to operate in the U.K.

One of its functions, as we said, is a monitoring function, so it's going to monitor the environmental improvement plans and the targets that are set there. As Sarah said, there are going to be targets for air quality, biodiversity, resource efficiency, waste, and water. The OEP will have the ability to ensure that the first environment improvement plan, which is the 25-year plan, actually is doing what policy has entrusted it to do and that public authorities are implementing it. It's also going to ensure that the minister is reporting to Parliament correctly on the implementation plans. I think, again, the legislature has tried to ensure that there is an independence in the OEP, although it's funded by Defra and the secretary of state will appoint the chair.

Actually, a lot of its reports are laid before Parliament. So, Parliament will have a post-scrutiny function, which we don't really have in the U.K. Once legislation has been passed, people don't scrutinize it that much. That was a function that the Commission had, but now it will go to the OEP and then Parliament again if there are issues. The secretary of state has a duty to respond to these reports that it publishes, which, again, I think is a really important watchdog function.

Another function is monitoring and then advice. If the minister requires advice from the OEP, it will provide

advice on changes to the law. It's not an obligation, but it is the ability of the minister to ask for this. This is really important, and this includes the Commission functions as well as the advisory functions.

This also shows you the amount of expertise and know-how that the OEP needs to have. We don't know if it's going to have committees, but we expect that it will have some specialist committees with scientists in different areas that will be able to advise the OEP and the government.

In terms of its enforcement function, I think it will only kick in, as I said, when public authorities fail to comply with the environmental law because either they don't take into account the right environmental law or they don't exercise their functions.

It will take complaints from the public. Again, it's going to have to deal in its strategy with how this all is going to happen. I think it will need to respond to all complaints, but only those that are for a significant harm, of national importance. It will have to prioritize its functions.

I know the Environment Agency, for example, is slightly concerned about how this will all work because this will be overseeing the functions that they already do. So, it's going to need to have some way of cooperating with the other bodies, particularly when it carries out an investigation. It can either carry out an investigation on its own initiative or through complaints of different parties.

There's lots of transparency as published reports. A report would include, for example, the alleged failure, the reasons for the conclusions reached, and any recommendations. Again, there is a cooperative flavor to the OEP. It can, like the Commission used to do, issue information notices. The next step is a decision notice, and the following step could be a tribunal action or a judicial review before the High Court. The penalty will not be financial, although the Commission did have the power to take issues to the Court of Justice of the EU.

That's the OEP in a nutshell. But to touch on a few points that the other speakers raised, the OEP will have, I think, an important function in looking at non-regression. We have to see how the legislation plays out. Of course, the OEP cannot change the legislation, but the OEP has a strong function of ensuring that environmental law is implemented.

If we are going to diverge, it very much has to be either legislation that sets out that we can have a regression clause or we can have a divergence. Or the Supreme Court will have to—and it has power to do this under the Withdrawal Act—justify if there's a divergence, if there's no legislation.

The other thing is that Northern Ireland is going to fall in with England, but Wales is going to have its own OEP body, as is Scotland. So, if we're not careful about how we play this out, there will be risks certainly of slight fragmentation of the environmental law in the U.K., because the Scots very much are going to have their own regulator. The Welsh already have a Future Generations regulator that deals with some of the principles enshrined in the environment bill and therefore the functions of the new OEP. Wales is debating whether to include the functions in that regulator or to create a new one.

Before, you had one body, the Commission, that used to oversee the implementation of environmental law across the U.K. Now, you're going to have four bodies with greater divergence. Even though we have an excellent platform to continue to develop our environmental law in a beneficial way, there are lots of risks here.

For example, the U.K., and I don't know how it's going to play out yet, has given a target of having 80% of our rivers showing good conservation status. At the moment, only 17% of rivers in England have such status.<sup>18</sup> We're having a huge issue with nitrates regulation in the U.K. at the moment because the Court of Justice of the EU has tightened the interpretation of the Habitats Regulations in the past 18 months with a number of cases, including the *Grace* case<sup>19</sup> and the Dutch nitrates case.<sup>20</sup> It means that planning has come to a halt in certain areas of the U.K.—unless they're nitrate-neutral—because of this stricter interpretation.

Is the U.K. going to continue with the strict interpretation? Or is it going to vary the interpretation of the law? Are we going to see divergence? That is not clear at the moment and a real risk.

**Miriam Aczel:** My research focus is on shale gas in England. I'm going to talk about issues in the energy sector, including the EU ETS and also natural gas, including the push for shale gas.

To back up and set the stage a little bit, I think that there is an overwhelming number of things that the U.K. needs to accomplish in 11 months, including immigration, university research programs, data-sharing, fisheries, and environmental law.

Just think of the sheer scale of the number of treaties: there are around 750 treaties with other countries, and the U.K. has ratified more than 40 international environmental treaties. I think that one thing is certain. Brexit is marked with uncertainty, but what is certain is that there's a lot to be done in 11 months. One important issue is whether the U.K. will still be able to participate in the EU ETS and how that will play out.

Currently, European Economic Area Members like Norway and Iceland do participate in the cap-and-trade scheme despite not being Member States. On February 3, it was announced that the auctions of U.K.-issued allowances under the ETS are going to resume in early March. And the U.K. supplies from 2019 and 2020 are going to be spread across sales held over all of this year.

There are two platforms. There's one in London and one in Germany. The ETS operates on the polluter-pays principle. So, allocation of the U.K.'s share of free allowances to industry is also going to resume this month, and another auction of ETS aviation permits is going to be held later in March. This comes after several months of uncertainty

about the timescale of this return to market of the U.K.'s carbon allowances, which has been suspended since the end of 2018 because of Brexit uncertainty.

The approval of the Brexit Withdrawal Agreement meant that the country exited the European bloc with the transition deal, and means that the U.K.'s participation in the carbon market has been extended at least to the end of this year. But the main point here is that there still is uncertainty. This is one example of a key issue that we are seeing some movement in, but it will need to be resolved in the coming months.

I think there's also a lot of uncertainty regarding the energy sector and particularly electricity. The industry association, Eurelectric, had sent out a statement to both the EU and U.K. governments urging negotiators that it is crucial to include an energy and climate chapter in whatever is worked out in order to avoid major electricity and energy disruption. Specifically, they had four critical points that I think are important to mention to avoid these major disruptions.

First, Eurelectric is calling for a continuous participation of the U.K. in the EU's internal energy market and also the EU's energy agencies like Euratom, the European Atomic Energy Community, and the European Network of Transmission System Operators. Second, they're calling for the deal to safeguard this integrated single electricity market between Ireland and Northern Ireland. Then, the third important point that they want is the U.K. to coordinate approaches for reaching carbon neutrality by 2050. Fourth, they say that the deal has to include governance and arbitration mechanisms in order to help facilitate this free and fair trading of electricity, and then also in order to settle any regulatory divergences that come about.

I think this coordinated energy trading arrangement helps to ensure lower prices and improves the security of the supply. That's where the U.K.'s energy supply is really a big area of uncertainty. Currently, 5% or 6% of electricity comes from power links with France, Holland, and Ireland.<sup>21</sup> And around 40% of the gas supply comes from Norwegian and EU pipelines.<sup>22</sup> There's quite a high dependence.

That brings me to the next point: the U.K.'s demand for gas. In 2018, more than two-thirds of domestic energy demand was met by gas, and around 85% of U.K. households use gas for heating.<sup>23</sup> In addition to this, around 40% of electricity generation is sourced from natural gas.<sup>24</sup> There's quite a high demand for natural gas. Offshore production has been declining since 2000, which has meant

18. Freshwater Habitats Trust, *The Shocking State of England's Rivers*, <https://freshwaterhabitats.org.uk/news/shocking-state-englands-rivers/> (last visited Apr. 8, 2020).

19. Case 164/17, *Grace and Sweetman v. Pleanala* (2018).

20. Case 293/17, *Coöperatie Mobilisation for the Environment UA v. College van gedeputeerde staten van Limburg* (2018).

21. Nina Chestney, *Factbox: How the UK's Energy Markets Will Work If It Leaves the EU*, REUTERS, Oct. 10, 2019, <https://www.reuters.com/article/us-britain-eu-energy-factbox/factbox-how-the-uks-energy-markets-will-work-if-it-leaves-the-eu-idUSKBN1WP1KY>.

22. *Id.*

23. Mike Hemsley, *Cleaning Up the UK's Heating Systems: New Insights on Low-Carbon Heat*, COMMITTEE ON CLIMATE CHANGE, Sept. 10, 2018, <https://www.theccc.org.uk/2018/09/10/cleaning-up-the-uks-heating-systems-new-insights-on-low-carbon-heat/>.

24. BP, *STATISTICAL REVIEW—2019: UK ENERGY MARKET IN 2018* (2019), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-uk-insights.pdf>.

that the U.K. has gone from being a net exporter of gas to importing more than one-half of its supplies by 2018 or 2019. Estimates are saying that this could be roughly three-quarters of gas being imported by 2030.<sup>25</sup>

And then another important element of this is that every scenario that was proposed by the U.K. Committee on Climate Change for setting out how the U.K. could meet these legally binding 2050 emissions reduction targets includes demand for natural gas. There's no scenario that doesn't have natural gas playing a strong part in these scenarios. The government has been arguing that shale gas has the potential to be a safe and affordable supply of energy, but this is a hotly contested issue. I think particularly with the uncertainty that Brexit brings about, it's only going to become more contested. There have been several issues and quite a high degree of public protests and public opposition to shale gas.

In terms of the laws that regulate fracking, these mainly come from 15 different EU directives.<sup>26</sup> These are EU-wide agreements that range on issues from water contamination, air pollution, the EU Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH), which is particularly important in terms of the number of chemicals that are used in fracking fluids, and the Water Framework Directive,<sup>27</sup> as well as biodiversity directives.

There is quite a complicated patchwork of these 15 different directives that lead to regulation of shale gas as it is currently. I'm going to focus on England because there's an indefinite moratorium on fracking in Wales, Scotland, and Northern Ireland. The case in England is a little bit more unclear. There's been a bit of political flip-flopping on whether or not England is going to go for extracting shale gas.

To set the scene, the areas that have the largest amounts of shale gas in England are in the Lancashire and Yorkshire regions. I think that there's been a pattern of pushing back on EU regulations. Starting back in 2014, the U.K. defeated the EU's attempt to put legally binding environmental regulations for the nascent shale gas industry.<sup>28</sup> At the time, Prime Minister David Cameron had said that he had an intense campaign of lobbying against the proposals, arguing that the rules were too strict and would delay investment and increase the cost of shale gas. He said that the U.K. was going "all-out for shale" and then also introduced millions of pounds of incentives for local authorities to accept fracking.<sup>29</sup>

In contrast to the situation in the United States, below depths of 500 meters mineral resources are property of the Crown. That's one key difference between the United States and the U.K.: homeowners don't stand to make the same kind of windfall that they do in the United States. So, that plays a big role in the level of public acceptance.

This led the European Commission to respond to these calls for action by releasing a recommendation,<sup>30</sup> which is not legally binding. And then a year later, the 2015 Infrastructure Act<sup>31</sup> meant changes to the trespass laws, the 1998 Petroleum Act. This was done without any consent. And 99% of 40,000 people objected to the trespass amendment,<sup>32</sup> which meant that drillers could drill under landowners' homes without requesting permission and that it would not be considered trespass.

Then again, a year later in 2016, another element of deregulation or lack of representation of local communities was when Lancashire Secretary of State for Local Communities Sajid Javid overturned Lancashire County Council's decision not to allow fracking in Lancashire.<sup>33</sup> This essentially permitted Cuadrilla Resources to proceed on the grounds of national energy interests.

This is another example of where national energy interest and deregulation can lead to potential conflicts of interest. I think there's a really important risk that fracking companies will try to exploit Brexit in order to water down environmental laws in their favor. In 2017, another energy company, INEOS, and a few other chemical companies were able to get a \$100-million-per-year exemption from the carbon trading scheme from the government.<sup>34</sup> This is because of industry lobbying and pressure. Then, in October 2018, the U.K. started commercial drilling in the north of England.<sup>35</sup> This is despite community concerns and legal challenges.

One of the most important issues here is that there's little scope for the consideration of environmental human rights concerns under current regulations because they're largely based on petroleum, minerals, and energy regulations. Back in 2016, one of Prime Minister Theresa May's first moves was to dismantle the Department of Energy and Climate Change and merge it with the Department for Business, Innovation, and Skills. And then in their place, the Department for Business, Energy, and Industrial Strat-

25. Elijah Acquah-Andoh et al., *Brexit and UK Energy Security: Perspectives From Unconventional Gas Investment and the Effects of Shale Gas on UK Energy Prices*, 12 ENERGIES 600 (2019).

26. European Commission Recommendation of 22 January 2014 on Minimum Principles for the Exploration and Production of Hydrocarbons (Such as Shale Gas) Using High-Volume Hydraulic Fracturing, O.J. 2014 (L 39) 72.

27. Directive 2000/60/EC of the European Parliament and of the Council Establishing a Framework for the Community Action in the Field of Water Policy, O.J. 2000 (L 327) 1.

28. Damian Carrington, *UK Defeats European Bid for Fracking Regulations*, GUARDIAN, Jan. 14, 2014, <https://www.theguardian.com/environment/2014/jan/14/uk-defeats-european-bid-fracking-regulations>.

29. Nicholas Watt, *Fracking in the UK: "We're Going All Out for Shale," Admits Cameron*, GUARDIAN, Jan. 13, 2014, <https://www.theguardian.com/environment/2014/jan/13/shale-gas-fracking-cameron-all-out>.

30. European Commission Recommendation of 22 January 2014 on Minimum Principles for the Exploration and Production of Hydrocarbons (Such as Shale Gas) Using High-Volume Hydraulic Fracturing, O.J. 2014 (L 39) 72.

31. Infrastructure Act 2015, c. 7 (UK).

32. Damian Carrington, *Fracking Trespass Law Changes Move Forward Despite Huge Public Opposition*, GUARDIAN, Sept. 26, 2014, <https://www.theguardian.com/environment/2014/sep/26/fracking-trespass-law-changes-move-forward-despite-huge-public-opposition>.

33. Miriam R. Aczel et al., *How Much Is Enough? Approaches to Public Participation in Shale Gas Regulation Across England, France, and Algeria*, 5 EXTRACTIVE INDUSTRIES & Soc'y 427 (2018); Michael Bradshaw & Catherine Waite, *Learning From Lancashire: Exploring the Contours of the Shale Gas Conflict in England*, 47 GLOBAL ENVTL. CHANGE 28 (2017).

34. Adam Vaughan, *Fracking Firm Ineos Leads Industry Lobbying to Avoid Green Tax*, GUARDIAN, Apr. 3, 2017, <https://www.theguardian.com/environment/2017/apr/03/ineos-leads-lobbying-effort-to-get-out-of-paying-green-tax>.

35. Miriam R. Aczel & Karen E. Makuch, *Human Rights and Fracking in England: The Role of the Oregon Permanent People's Tribunal*, 20 HEALTH & HUM. RTS. 31 (2018).

egy was created. Again, there might be a potential conflict of interest there, with energy and industrial strategy being held under the same umbrella.

While the Conservative government has made clear that they support shale gas extraction, in November, Prime Minister Boris Johnson announced withdrawal of support for fracking for shale gas, and imposed an indefinite moratorium on the practice after another series of small earthquakes or rumblings through parts of northern England.<sup>36</sup> This caused a lot of alarm to local residents. But then it seems like this might be a largely political move, and it's not clear whether this is really a true moratorium or not because there was a bit of a U-turn where, three days later, the Conservative Party announced that they issued a document<sup>37</sup> that contradicts this ban on fracking at the start of the general election campaign. But I think that what's clear from all of this is that fracking is just one controversial issue, and it's rife with uncertainty.

This is one element that has been sort of a bumpy road. And there's been quite a lot of public protests and also uncertainty in terms of the regulations. I think Brexit introduces a whole can of worms of issues with potential gaps in regulation.

**Ambereen K. Shaffie:** I have the great advantage of going last, which means I got to listen to a lot of other great points, so I'll try to build off of those without repeating them. I wanted to talk broadly about some laws that I'm concerned with and how Brexit might impact them, although some of my co-panelists already touched upon them.

There is the national climate change legislation in the U.K., but I also want to talk about the Montreal Protocol<sup>38</sup> and the Kigali Amendment to the Montreal Protocol.<sup>39</sup> I'll touch briefly on the Paris Accord<sup>40</sup> and the Kyoto Protocol,<sup>41</sup> and I will talk about the 2014 regulation on fluorinated gases (F-gases),<sup>42</sup> which is also related to the Kigali Amendment.

As Sarah mentioned, the U.K. has agreed to host these important United Nations climate talks, and has vocalized support within the United Nations as well as joining Canada in founding the Powering Past Coal Alliance and pledging to keep its emissions in check. It is apparently the most ambitious country when it comes to environmental

legislation. I'm really heartened to hear those comments. But I still think that there's quite a bit—and all of my colleagues have echoed this—of uncertainty in addition to impacting ambition and momentum. Brexit will carry strong implications for some of these areas, any of which could have dire consequences for climate ambition and, taken together, will also be magnified.

One area is litigation. Climate litigation is on the rise throughout the world. In particular, in the U.K, we'll see a lot of debate around citizens' rights to sue the government to enforce environmental legislation. Health impacts of climate are being seen increasingly across the world. I'll touch more on that later.

Another area is trade, as Sarah and others have mentioned. Brexit will particularly impact, I believe, public investment in clean energy finance, which the U.K. will need a massive amount of in order to sustain jobs and keep resources within the U.K. There will also be very extensive economic consequences, which we don't have time to get into today.

The U.K. had joined the EU back in 1973 during this nascent environmental movement. So, what that means is that its environmental laws are actually deeply embedded within the EU and they're based on European law and support. That means they relied specifically on the stability that the EU provided when developing environmental laws, and that those environmental laws were not as vulnerable to the short-term pressures of national interests, some of which Miriam touched upon. That long-term nature of EU policies and environmental laws actually lent itself quite well to things like effective climate policy, which require a lot of long-term targets.

In addition, the EU provided a lot of structure by imposing targets and also setting up a system of monitoring and compliance and enforcement and registry and all of the supporting and administrative functions that are required to support robust laws like climate change law. The fourth thing that EU law provided was a high level of accountability for its Member nations to abide by those environmental laws, through the Court of Justice and through other means.

All four of those things, I think we're going to see, will open up the U.K. to more vulnerability in whether or not its climate change policies and international environmental treaty obligations will be suffering from a lack of ambition or accountability.

Also, we touched briefly upon the fact that environmental policy in the U.K. falls under the purview of the subnational assemblies in Wales, Scotland, and Northern Ireland. So, the ability of each of those governments to go off in their own directions and develop more of their own national policies was more limited when the U.K. was a part of the EU. That's an open question as to how much authority those subnational assemblies will actually get going forward.

I'm going to turn to the actual legal instruments. I'm going to start with the Kigali Amendment to the Montreal Protocol. The U.K. is a signatory to the Montreal Protocol in its own right, as well as of the EU. So, this is a bit of a

36. Stephen Addison & Alistair Smout, *In Seismic Shift, Britain Orders Immediate Moratorium on Fracking*, REUTERS, Nov. 1, 2019, <https://www.reuters.com/article/us-britain-fracking/in-seismic-shift-britain-orders-immediate-moratorium-on-fracking-idUSKBN1XC001>.

37. Roger Harrabin, *Fracking: Have the Conservatives Left Open the Back Door?*, BBC, Nov. 12, 2019, <https://www.bbc.com/news/business-50390334>.

38. Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 1522 U.N.T.S. 3 [hereinafter Montreal Protocol].

39. Kigali Amendment to the Montreal Protocol, Oct. 15, 2016, United Nations Treaty Collection, Ref. C.N.827.2016.TREATIES.XXVII.2.f [hereinafter Kigali Amendment].

40. Paris Agreement, Apr. 22, 2016, T.I.A.S. No. 16-1104.

41. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 162.

42. Regulation 517/2014, known as the F-Gas Regulation, aims to cut fluorinated gas emissions by two-thirds by 2030 against a 2010 baseline. Regulation (EU) No. 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases and Repealing Regulation (EC) No. 842/2006, O.J. 2014 (L 150) 195.

simpler case because irrespective of its membership in the EU, it will still have to abide by the Kigali Amendment.

The Montreal Protocol regulated the use of chlorofluorocarbons in an effort to close and heal the hole in the ozone layer that was discovered by two Nobel Prize-winning scientists back in the 1970s, and it successfully did so. The Kigali Amendment adds hydrofluorocarbons (HFCs) to that list of banned gases. The estimated savings, if the Kigali Amendment is implemented, are around 80 gigatons of carbon dioxide (CO<sub>2</sub>) equivalent until 2050. All 198 Montreal Protocol Parties agreed to take those steps, and they adopted that treaty in 2016. Again, we don't think that there will be a loosening of regulations related to the Kigali Amendment because of the way in which the U.K. adopted that agreement in its own right.

But that is not the case with other multilateral environmental agreements. One thing I do want to point out, however, is that the EU was leading global efforts to limit the emissions of HFCs and other F-gases. That's critical to international environmental law because HFCs and other F-gases are thousands of times more potent than other greenhouse gases (GHGs). HFCs are the fastest growing of those GHG emissions. Because of the proliferation and because of how powerful these gases are, the Kigali Amendment was adopted based on research that showed that if we limit HFCs, then we can save or remove about 0.5 degree Celsius of warming from the earth's atmosphere, which is a huge savings.<sup>43</sup> If combined with increasing the energy efficiency of the equipment, we can save the world up to one degree of warming from the earth's atmosphere.<sup>44</sup> That's a huge savings and, obviously, a huge step toward achieving the goals of the Paris Agreement. HFCs and F-gases are critically important when we're talking about reduction of GHG emissions indirectly and directly impacting climate. That's why I'm focusing on it first.

The EU law actually goes further than the Kigali Amendment. That's why it's critical to understand that the EU, like in many other cases with the international environmental laws, decided to move ahead of the international obligations. So, there is a question about whether or not the U.K. will be holding to that momentum. Obviously, that will directly impact the businesses that manufacture those chemicals, which are primarily used in air-conditioning, refrigeration, other cooling equipment, and some insulating foams and other aerosols.

For example, the EU had set up the HFC Registry, which handles the reporting and enforcement functions. So now, the U.K. is going to be faced with a decision: does it develop its own HFC Registry or does it do something

different? That's just one example of how the U.K. is going to face some questions following the Brexit decision.

Moving now to the 2014 F-gas regulations, in addition to the HFCs that are regulated by Kigali, the U.K. put into effect some added regulations on perfluorocarbons and sulfur hexafluoride and some halons. This is based on their understanding that the F-gases cause a global warming effect that's 23,000 times greater than CO<sub>2</sub>.<sup>45</sup> The history behind those F-gas regulations is that the EU emissions of F-gases had risen by about 60% in the 1990s.<sup>46</sup> So, they aggressively adopted regulations in 2006 and again in 2014. The 2014 regulation sought to cut their emissions by about two-thirds back to their 2010 levels and then phase it out.

The current regulation strengthened their existing measures. They made progressive cuts to HFCs through a quota system run by the European Environment Agency and all of that compliance was enforced by the Member States. Their intention behind those F-gas regulations was to drive up the cost of high global warming potential (GWP) HFCs, with some exceptions. Then, the European Commission was to conduct an ongoing review of that.

The savings that were supposed to be achieved by these F-gas regulations was 1.5 gigatons of CO<sub>2</sub> equivalent by 2030 and five gigatons by 2050. To give you some perspective, five gigatons is more than the CO<sub>2</sub> from one billion flights from Paris to New York. It's more than the sum of all GHGs that the EU emits per year. It also encouraged the use of green technology.

So, there are those kinds of things that gave a lot of certainty to investors and to companies in knowing what was supposed to be on the horizon for the next 30 to 50 years. As I mentioned, it's more ambitious than the international environmental treaties themselves. The concern is whether U.K. companies, particularly small and medium enterprises, are prepared for these larger cuts that Kigali set up in 2021 on at least some of these F-gases and whether or not they will continue that momentum.

I'm going to talk about the Paris Accord. In 2019, the spokesperson at the British embassy in Washington, D.C., stated that the U.K. has no plans to leave the Paris Agreement, and will honor all of its commitments. But hardline members of the Conservative Party see the focus on climate change as damaging their international relationships with the United States, among other allies.

This dissolution of the U.K. Committee on Climate Change, as Miriam mentioned, has led to some concerns about how independent their monitoring enforcement is

43. This is very well documented and was the foundation of reaching the global agreement to adopt the Kigali Amendment. See Aixue Hu et al., *Mitigation of Short-Lived Climate Pollutants Slows Sea-Level Rise*, 3 NATURE CLIMATE CHANGE 730 (Aug. 2013); see also NIHAR SHAH ET AL., BENEFITS OF LEAP-FROGGING TO SUPEREFFICIENCY AND LOW GLOBAL WARMING POTENTIAL REFRIGERANTS IN ROOM AIR CONDITIONING (2015), available at <https://ies.lbl.gov/sites/default/files/lbnl-1003671.pdf>; see also WORLD METEOROLOGICAL ORGANIZATION, SCIENTIFIC ASSESSMENT OF OZONE DEPLETION: 2018 (2018), <https://www.esrl.noaa.gov/csd/assessments/ozone/2018/>.

44. See SHAH ET AL., *supra* note 42.

45. Aidan Thomson, *Impact on UK Businesses of Global Deal to Phase Down HFCs*, BRYAN CAVE LEIGHTON PAISNER LLP, Nov. 23, 2016, <https://www.bclplaw.com/en-US/thought-leadership/impact-on-uk-businesses-of-global-deal-to-phase-down-hfcs.html>; Environmental Audit Committee, U.K. Parliament, *UK Progress on Reducing F-Gas Emissions Inquiry*, <https://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/inquiries/parliament-2017/uk-progress-on-reducing-f-gas-emissions-17-19/> (last visited Apr. 8, 2020); see also European Commission, *Fluorinated Greenhouse Gases*, [https://ec.europa.eu/clima/policies/f-gas\\_en](https://ec.europa.eu/clima/policies/f-gas_en) (last visited Apr. 8, 2020); see also European Commission, *EU Legislation to Control F-Gases*, [https://ec.europa.eu/clima/policies/f-gas/legislation\\_en](https://ec.europa.eu/clima/policies/f-gas/legislation_en) (last visited Apr. 8, 2020).

46. See Environmental Audit Committee, *supra* note 44.

really going to be. As of March 2019, the U.K. has no nationally determined commitment set under the Paris Agreement. They need to sit down and figure out what those are going to be. That's my understanding, but perhaps Sarah has more current information on where the nationally determined contributions (NDCs) stand in the U.K.

The U.K. Committee on Climate Change, which as my colleagues mentioned does not have binding or mandatory authority, nonetheless issued a 60-page report<sup>47</sup> detailing the faults within the U.K. strategies and the dangers of falling short of their 2030 emission targets under Paris. So, there's a question about whether or not those are going to be addressed. Miriam talked a little bit about the GHG emissions that were being monitored and regulated by the EU ETS, so I want to mention a couple of things about that.

The EU ETS covers about a thousand power plants and industrial installations within the U.K. and about 140 aircraft operations. It's the world's oldest and largest carbon trading program. There's been a lot of criticisms about industry loopholes and industry lobbying efforts that have exercised disproportionate influence on the ETS. But nonetheless, it has been the heart of the EU and, as such, U.K. climate policy since it was introduced in 2005.

The U.K. has two choices now. It can either adopt some national regulation or system that falls in line with that or it can link it to the EU program, which I think is where this government is aligning. Or it might end up trying to link a system to tiny regional programs with the subnational assemblies that may or may not have linkages to the rest of Europe, which could produce a lot of the fragmentation that Begonia was mentioning and perhaps even a devolving of ambition as well.

In order to avoid flooding the market with extra allowances that were not allowed under the EU ETS, British companies were supposed to surrender their allowances to meet their 2018 obligations. And as Miriam mentioned, those allowances apparently will resume this year. But the uncertainty, the time line in how this might play out, means that some U.K. companies, at least in my understanding, could still be holding on to their allowances. And those credits might lose their value upon Brexit taking effect at the end of this year. Multinational companies can actually transfer them or sell them and this might cause a dip in the value of the carbon allowances.

Like in many other cases, my point here is that the U.K. has been a leader in environmental law, in lowering its emissions and putting extra carbon taxes for power plants, even as it abided by the ETS. So, if a no-deal Brexit breaks its link to this ETS, the U.K. could introduce its own carbon tax, but that may not make up the difference. Its price signal might be lower and its ramp-up to meet those obligations could be less ambitious.

That's my broad point on that. The U.K. has specific carbon budgets in line from 2023 to about 2032. And the F-gas emissions that I mentioned contribute to those GHG emission reduction targets. I'm going to speak for a few minutes about possible strategies to deal with all of this uncertainty and these linkages that might be weakened by Brexit.

I've heard U.K. scholars advocate for the U.K. to develop its own mechanism for enforcement. This seems inevitable because as I said they are not going to be able to benefit from the types of enforcement or web of resources that it was able to draw upon from the EU.

I think another one of my colleagues mentioned a common approach to negotiations as to how its current relationship with the EU would look, addressing a whole set of environmental obligations. I think they had done something like this in discussing tariff-rate quotas with the World Trade Organization.

One of the things that I hear over and over again is that there's a lack of certainty. So, one of the things that the U.K. could do in addition to promulgating these fabulous national laws that Sarah talked about is perhaps issue a joint statement in conjunction with the EU where it lays out in firm and clear terms what its commitments are going to be vis-à-vis international environmental treaties. Or a subcommittee, perhaps even under one of these legislations that were mentioned, could publish their legal analysis on their official status on these agreements. Those kinds of things create long-term investment strategies for companies and funders to really understand which direction it's going in. And that leads to a lot more innovation and stability within the industry as well.

With respect to the F-gas regulations, we need to make sure that there isn't a backdoor for appliances containing F-gases that are banned in the EU to enter in through the U.K. in the event that their national commitments contain lower standards than the international ones or the regional ones.

There's another interesting proposal that I heard on HFCs in my review of some of this literature, which is in adding low-GWP refrigerant requirements to areas that were originally exempted under the F-gas regulations. In other words, stepping up the U.K.'s ambition even beyond things that they have previously agreed to under those regulations, such as adding low-GWP refrigerant requirements to metered dose inhalers, which I understand represent about 3.5% of GHG emissions in the U.K. and set some aggressive targets for those.<sup>48</sup> Another two things that were exempted from those F-gas regulations were heat pumps and HFCs. So, the F-gas regulation doesn't include a ban on those. That's a huge opportunity for that country to take advantage of.

Another huge advantage is energy efficiency. I glossed over it briefly, and Miriam can speak more to this than I can, but emissions from energy infrastructure is probably

47. ENVIRONMENTAL AUDIT COMMITTEE, UK PROGRESS ON REDUCING F-GAS EMISSIONS, 2017-19, HC 469, available at <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/469/469.pdf>.

48. These inhalers represent 3.5 % of the National Health Service's greenhouse gas emissions. See ENVIRONMENTAL AUDIT COMMITTEE, *supra* note 46, at 15.

the greatest contributor to GHGs. If you look at that infrastructure, one clear way to look at reducing energy emissions is through energy efficiency. The Kigali Amendment, as I mentioned, outlines the reduction of HFCs being linked to saving 0.5 degree Celsius. The research shows that you can double the benefits of that climate strategy simply by increasing the equipment energy efficiency, which means you could achieve up to one degree savings toward the Paris Agreement. So, that's a huge opportunity that the U.K. can look at in terms of what to invest in.

Another suggestion that I have is for global energy subsidies, placing direct limits on pollution, and, as I mentioned, increasing actual policies like the ETS or borrow elements of the ETS that have teeth to it. I mentioned also that there are some potentially interesting ways in which this could impact the U.K.

One of the things I want to talk about is climate litigation. Illegal activities disadvantage businesses who comply with the law and endanger consumers. I want to give an example here. With the cooling equipment that's regulated by the Kigali Amendment, there's a concern about unsupervised top-up of mobile air-conditioning units in vehicles. There are concerns about flammable HFCs being applied to systems that are not designed or capable for low flammable HFCs, which could lead to disasters and potential litigation.

There are concerns with destruction of technologies or retiring of old technologies that use these particular F-gases. If they're not properly disposed of, then those F-gases become released into the atmosphere. There was a case<sup>49</sup> in the U.K. that was successfully prosecuted, and after that, the government introduced the civil penalties to make it easier to prosecute offenders.

The U.K. courts are in a position to insist that their authorities keep those long-term targets and hold the government to account. They most likely will under their national law. But I think that there are some open questions about how that law will actually get enforced in the U.K. because of the simple fact that now that it doesn't have the EU enforcement and compliance mechanisms to fall back on, it's going to need a great deal of resources for its national agencies to be able to enforce those laws.

One of my colleagues was talking about the OEP and how it can receive complaints from NGOs and citizens. I mentioned that citizen suits have been increasing throughout the world as a general trend related to climate in these types of regulations. Even with that, there's going to be questions about how any successful decisions that are

brought forward can be enforced, because it's going to take a lot more money for those agencies to be able to do that.

I did want to mention health linkages because we know that all activities that are regulated by environmental law directly impact human health. I just authored a chapter that will appear in a U.S. medical textbook on governance over health climate policies.<sup>50</sup> This is an area that I'm very concerned with. A small example that I provided was asthma medications that use metered dose inhalers that also use high-GWP HFC propellants, which have been shown to have detrimental effects on health, as well as recycling those safely so that they don't release high-GWP HFCs when they're destroyed. With those kinds of things, the U.K. could use its procurement power, which is still significant, to promote low-GWP alternatives.

The final thing that I want to mention is trade linkages. When they sign on to these international environmental treaties, again, that creates certainty not only within their national industries, but also international markets. They stand a chance to face trade barriers if they're not subject to the rules of EU quotas on F-gases or EU caps on emissions with their ETS. They might lose flexibility and they certainly will lose monitoring oversight and enforcement capabilities. So, figuring out ways to replicate those through U.K. systems is going to require a great deal of resources and political will and coordination with their subnational agencies to effectively do so. They're going to need a lot more money to promote their own monetary enforcement.

While the restrictions on the U.K. will be lifted, there's one slight caveat that it also gives the U.K. more freedom. So, one can posit that actually there's a lot more freedom on the U.K. to implement radical environmental policies that are even more ambitious that follow the precautionary principle and the polluter-pays principle to an even greater extent. But what we have seen, I think what we're all similarly saying, is that the rhetoric coming out of the current administration in the U.K. is talking more about deregulation or taking back control, similar to what we in the United States are seeing, too. This leads us to believe that the trend may not be toward increasing regulation and ambition, which is going to be to the huge detriment of international environmental law, and which has gained such significant momentum particularly with the Montreal Protocol and Paris Accord being signed back to back. The U.K. has been such a vocal leader in setting an example and a model for the rest of the world.

**Caitlin McCarthy:** We have a few questions that I want to dive into, but first, I want to give our panelists an opportunity to respond to any points your co-panelists have brought up.

**Begonia Filgueira:** I'd like to pick up on climate change litigation because I think that is, as Ambereen mentioned, going to be a huge topic. We now have a net-zero carbon

49. In May of 2018, the European Court of Justice determined that the U.K. significantly breached air-quality limits for nitrogen dioxide from diesel vehicles, and had failed to provide "credible, effective and timely" plans to cut pollution in 16 urban areas (the largest breaches being in London, Birmingham, Leeds, and Glasgow). With the threat of significant fines, the U.K. has committed to develop a comprehensive clean air strategy to reduce air pollution from various sources. Damian Carrington, *UK Taken to Europe's Highest Court Over Air Pollution*, GUARDIAN, May 17, 2018, <https://www.theguardian.com/environment/2018/may/17/uk-taken-to-europes-highest-court-over-air-pollution>; Fiona Harvey, *Air Pollution: UK Government Loses Third Court Case as Plans Ruled "Unlawful,"* GUARDIAN, Feb. 21, 2018, <https://www.theguardian.com/environment/2018/feb/21/high-court-rules-uk-air-pollution-plans-unlawful>.

50. GLOBAL CLIMATE CHANGE AND HUMAN HEALTH: FROM SCIENCE TO PRACTICE (2d ed. forthcoming late 2020).

commitment in the Climate Change Act. We have a Climate Change Committee that's setting out clearly what policy the government could adopt. And we're going to have an OEP, a new regulator that's going to make sure that the carbon budgets are met. Of course, this seems to be an issue of administrative law; it will filter down to businesses, which, if the Environment Agency is not properly monitoring environmental permits on emissions for installations, for example, then the OEP will raise the issue.

The regulators have had in England a very different attitude to U.S. regulators in that it's been more of a business approach throughout my career. They won't sort of jump straight away to notices and penalties. And with the fear of climate change litigation, I think that the regulators may harden their enforcement stance toward businesses and that we might see the rise of climate change litigation in the U.K.

**Sarah Williams:** I was going to comment on the state of our NDC that was mentioned. We don't know what's going to happen there. But because the U.K. has been a big contributor to the EU NDC, so that it provides above-average effort, the U.K. withdrawal from that would be very destabilizing. It's up for negotiation, how that gets taken forward. The U.K. definitely has a good NDC and will be raising ambition, but just how that works with the choreography of this year in the run-up to COP26 remains to be seen. I think the government needs to think very seriously about how it continues, hopefully, to play a role in the EU effort because the last thing we want to do is destabilize ambition in the run-up to COP26.

**Ambereen K. Shaffie:** I attend these climate talks with regularity. What I typically see is that the country hosting the COP will make some sort of high-level statement that will outline its commitments, and it will try to use that as an opportunity to showcase its leadership while global and media attention is focused on it. I anticipate that that's probably going to happen at COP26. But, again, we just don't know what that would look like.

**Markus Gehring:** The touchpoint to watch for is the U.S.-U.K. free trade agreement because it's very clear that the U.S. administration doesn't want any talk about carbon. One of the negotiators of the pre-talks leaked a conversation where it was reported in the U.K. media that the phrase "climate change" cannot be used even in the negotiation phase. So, that's on the one side. And on the other side, we have the EU, which has a firm commitment not to allow any far-reaching free-trade commitments with any country that doesn't commit to a carbon price or indeed the Paris Agreement.

**Caitlin McCarthy:** Given the U.K.'s commitment to and interest in being a world leader on climate, how does that work and how does that coincide with the subsidies that are provided for burning trees to meet renewable energy and carbon targets? An example to cite for this would be the Drax Power Station, which burns more than seven mil-

lion tons of forest-derived wood pellets for electricity annually, is that under subsidy?

**Ambereen K. Shaffie:** There's a lot of discussion about how EU environmental policies are actually on climate since this question is specifically about climate. But really it's talking, I think, more about this specific example of wood burning. There's been a lot of criticism about EU policies on the other side saying, well, they're unfairly skewed toward business. I think we've heard enough information here about how lobby groups have a very strong hold and say in how the EU has set its climate policy.

I've mentioned with the ETS specifically the loopholes and gaps in the law that had been identified. One thing that scholars have said that I, again, want to emphasize, is that, potentially, the U.K. has an opportunity for a clean break with the EU and to invent new or more aggressive policy that closes those gaps if it's going to be the most ambitious country on climate on earth.

Again, I don't know that that's likely because drastic changes in law are very difficult as most people know, and drastic changes in policy are even more difficult because you're dealing with bureaucracy. That, combined with the current political rhetoric, sounds like there's not really an interest in committing to climate to the extent that it would alienate the United States. I don't know that it's going to happen that way. We'll just have to see. I think this is also where it's worth mentioning that nongovernmental groups play a strong role in governance and influencing policy and that might be a place where they need to step up.

**Caitlin McCarthy:** One last question, whether anyone could speak a bit on the ocean governance issues, particularly on how the Marine Strategy Framework Directive<sup>51</sup> is presumably no longer binding on the U.K., and how regional environmental improvement might be addressed or implemented in regards to ocean governance?

**Markus Gehring:** Until the end of the year, there's not going to be any changes to speak of going forward. The U.K. wants to formulate its own marine policy as an independent coastal state. Keep in mind that the U.K. waters don't just include what is around the British Isles. It also includes large swaths of the Pacific and the Indian and Atlantic Oceans. So, this is quite an important regulatory field. The Fisheries Act, I think, will apply to all those areas. The U.K. prime minister said on February 3 that any fisheries commitments will be made from year to year.<sup>52</sup> The U.K. is bound by all the international treaties. It has been a founding member of the UN Convention on the Law of the Sea and some of the most far-reaching treaties. It's part of

51. European Commission, *Legislation: The Marine Strategy Framework Directive*, [https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\\_en.htm](https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm) (last updated Aug. 7, 2019).

52. Fiona Harvey, *EU Vessels Will No Longer Have Automatic Access to UK Fishing Waters*, *GUARDIAN*, Jan. 29, 2020, <https://www.theguardian.com/business/2020/jan/29/eu-vessels-will-no-longer-have-automatic-access-to-uk-fishing-waters>.

the EU team but embarking on supporting the biodiversity beyond national boundaries negotiations independently.

All of that leaves us with the picture that on January 1, 2021, it will depend whether there is going to be an agreement between the EU and the U.K. on fisheries and maritime governance. If there isn't, well, then, only U.K. law applies, and lawyers in London are going to make sure that U.K. law is in compliance with all the international commitments—for example, the Straddling Fish Stocks Agree-

ment and the regional seas agreements that exist around the world.

My fear is not so much that the U.K. will suddenly completely deregulate all fisheries. The main question will be what is going to be the compromise? Fisheries are hugely symbolic in the U.K. political scene. Economically, it's negligible in its impact. We will have to see how the U.K. prime minister and his negotiation team handle this in the next 11 months.