



e-law

Better law for the environment

July/August 2016 | Issue 95



Welcome to the July/August edition of elaw.

The theme for this issue is international law. UKELA's focus on international law this year, and at the recent annual conference, could not have been more apt. The conference, held on 1-3 July, commenced just one week after the UK voted to leave the European Union.

UKELA has been exploring what Brexit might mean for UK's environmental policies and laws for some time through events, papers and responses to inquiries and consultations.

Prior to the referendum, UKELA maintained a neutral position on Brexit. As a charity, and not a political or lobbying group, UKELA's Council felt such a position was important to ensure its influence was based on its independence and expertise.

However, on 20 July, following extensive consultation with Working Parties and Trustees, UKELA issued a statement which makes clear its view that existing levels of environmental protection and public participation in environmental decisions must be maintained in any changes to domestic legislation that arise from Brexit. A full copy of the statement has been reproduced in [Brexit News](#). We will keep you updated on developments in elaw, and UKELA's ongoing work on Brexit is available on the [website](#).

In the meantime, we hope you enjoy the range of internationally themed articles contributed by authors in this issue.

Finally, please welcome Simone Davidson, who will be Acting Editor of elaw from the next edition in September/October while I am on maternity leave. Simone is an experienced environmental law specialist, having worked and trained for many years as an environmental lawyer at Clyde & Co, before she joined LexisNexis as a professional support lawyer in 2014. A huge thank you to Simone for taking on this work over the next 12 months.

Best wishes,

Hayley Tam

Hayley Tam
UKELA Trustee & elaw editor

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Words from the Chair

UKELA – International and Interconnected



The theme for UKELA's hugely successful Annual Conference, attended by 200 members in Brighton between 1-3 July, was *"From Global to Local – how international environmental law affects UK practice"*.

For members unable to attend the event – and for those who were there but would like a reminder of what a great experience it was – I thought it might be helpful to provide this précis of my Opening Address.

1. Why hold an international environmental law conference?

I started by asking why the UK Environmental Law Association was having a conference about international matters at all – a question put to me by a couple of our members.

Our UK and international speakers from Australia, Canada and America spelt out precisely why it is so important to keep up-to-date with international developments. They explored aspects of public international law relating to the environment, and a comparative law approach was taken. A number of our environmental laws trace their origins back to international treaties and, as James Maurici QC, pointed out in his talk, they may have a bearing on how our laws are interpreted.

For lawyers and other environmental advisors it is important to note that clients with an eye on the long-term need to know what is coming – i.e. how emerging environmental liabilities will impact business operations. What could be more significant than, for example, the international commitments arising from COP 21 in Paris just 7 months ago in December 2015?

I also pointed out that whilst we may not always be aware of it, other countries look to the UK – the fifth wealthiest country in the world – as a leader in environmental and especially climate regulation. I argued that such leadership brings with it a moral responsibility to extend a helping hand to other countries in need of guidance and support. UKELA is responding by starting to help environmental law associations in other countries that are struggling to cope with their severe environmental challenges.

2. Brexit

The backdrop to the Conference was the result of the Referendum on 23 June.

Within a few hours of the result your Executive Director and staff and my Vice Chairs and I were in discussions about the implications for UKELA and the UK's environmental laws of what is arguably one of the most significant constitutional developments since the Bill of Rights was passed in 1689.

Brexit has been in UKELA's sights for a long time. We have published papers from our Working Parties on Brexit, organised seminars and an all-day conference on the subject. We have a dedicated Brexit page on the website which has attracted considerable interest from members.

In the run up to the Referendum, UKELA's Council adopted a position of neutrality for very compelling reasons. We are a charity, not a lobbying group. Our influence is based on our independence and expertise.

Neutrality does not mean disengagement or apathy. We have responsibilities to raise awareness about environmental law. One of our aims is to advance the education of the public about environmental laws. This applies in stable and unstable times.

We are a membership organisation and an educational charity. We are listening very carefully to our membership, to our Trustees and Patrons, before deciding on how best to respond to the challenges, uncertainties and opportunities associated with Brexit. The Conference provided a timely opportunity to take soundings as to UKELA's next steps which will be determined in the near future.

Clearly, there is a possibility that our framework of EU-derived environmental laws will be subject to root and branch review by policymakers in England, Scotland, Northern Ireland and Wales. That would be a very demanding exercise for Government to bear. If and when it arises, I am sure that UKELA will have an invaluable contribution to make as an independent and expert association of environmental lawyers and professionals. Indeed, it is hard to think of any other organisation better placed than we are to input to this process at what may be a time of national need.

There are a number of choices open to us and in respect of which we are already receiving suggestions from members:

- a) We could be proactive and set up a Task Force to start to look at key areas of EU-derived law and develop an objective evidence base for their retention or indeed (where we perceive shortcomings) amendment.
- b) We could be active and make it known to policymakers that we are available to provide independent expertise so as to “secure the best of what we have now and identify opportunities for further improvement”.
- c) We could be cautious – we could keep a watching brief on the developing scene.

So, a moment of reckoning may be coming and we have to be prepared for it – we may wish, we may need, to make UKELA’s most important contribution to environmental law to date.

I am confident that we will stand up to our responsibilities.

3. UKELA’s Origins

International considerations have always been part of UKELA’s genetic make-up. The problems environmental law exists to defeat are hydra-headed and are often global in nature. UKELA’s Founders understood this when they set up our Association, back in 1987.

Our founding Chair, Professor Richard Macrory, recently provided me with a copy of the first edition of UKELA’s environmental law journal from February 1987. It contains a long list of environmental law associations from around the world – the US Canada, France, West Germany, India, Greece, Mexico, Netherlands, Russia and Spain – all conveying their good wishes to the new UKELA.

Richard wrote at the time: “events (in 1987) have demonstrated vividly that many environmental issues have a real and tangible international dimension – Chernobyl, the Sandoz Rhine pollution incident and the continuing debate on acid rain. Improved international co-operation and law-making will be the order of the day”.

So, the germ of the international was present at the start of UKELA’s journey, almost thirty years ago.

4. UKELA’s International Strategy

I then explained the international aspects of UKELA’s new 4-year Strategic Plan a few weeks ago: “Better Environmental Law through Measured Ambition”. You can find it on our website.

International issues feature more prominently than ever before:

- a) We will attract an “increasing number of international members”;
- b) We will use our Annual Conference in Brighton to “embed and nurture international partnerships”; and
- c) We will “interact with international bodies to share knowledge, foster co-operation and enhance networking in key jurisdictions relevant to members’ working lives”.

I would strongly encourage all members to read the Plan. It is a living document that you can contribute to.

Given the outcome of the Referendum, we will be revisiting the Plan to determine whether and if so how our priorities may need to change.

5. International Initiatives in 2016

2016 has been a very busy year for international activities; in many ways it marks a new level of active engagement with other countries. We have met official overseas delegations over the past 6 months – from South Korea and Brazil. We will be meeting a Turkish delegation shortly. We are also reaching out to Sierra Leone and other countries in Africa.

Conference received a number of encouraging messages from our friends overseas:

- a) South Korea, Kumsil Kang, Executive Director of the Forum for Earth:

“Dear Friends participating in the Annual Conference,

We are very pleased that there has been much interaction between the two organisations and hope to learn more from you since the UK seems to have quite a proactive stance in climate change issues. We admire your efforts including the Annual Conference that you are holding and hope to contribute to the common goal and agendas that have now become cross-border issues.

According to the UNFCCC Paris Agreement last December, South Korea has decided to join the efforts to reduce the emissions of greenhouse gas. However, in reality South Korea’s environment policies have been moving backwards in recent years. To demonstrate, we came 173rd out of 180 countries in the Environmental Performance Index and are ranked first among OECD countries in the increase of greenhouse gas emissions.

We are at a time when the roles of lawyers have become more important than ever. With the 'Centre for Climate Change Law' as our hub, the People for Earth Forum will continue to discuss and devise new ideas and measures to help solve current and impending environmental issues.

Please know that your support and friendship gives us great strength in our endeavours."

- b) United States, Gene Smary, Chair of the Section of Energy, Resources and Infrastructure at the International Bar Association:

"I would like to extend best wishes to you for a successful conference. Congratulations are in order for the successful outreach undertaken by UKELA in recent years.

In particular, recognition and thanks are in order for the efforts of Tim Clare and Ben Stansfield".

- c) Canada, Michael Sims, Chair, National Environmental, Energy and Resources Law Section of the Canadian Bar Association:

"We value the strong ties that age developed with UKELA and NEERLS over the past many years.

We look forward to continuing our collegial and collaborative relationship and wish you a very successful conference".

6. What members can do to help

I asked for 5 volunteers to become UKELA's first team of International Ambassadors to help us to deliver our international plans. The help we provide to other countries may take the form of friendship and support, training and capacity building.

I have to say that I was greatly heartened by the tremendous response. To date, 12 members have offered to help. Working in teams of two, this will enable us to reach out to 6 countries and make a difference.

We will be convening the first meeting of our Ambassadors in September (details to be confirmed). It is not too late to get involved. The only things you need to get involved as a UKELA Ambassador are enthusiasm and commitment to making a difference. If this is of interest to you, please get in touch with me. You just need to send me an email to Stephen@ukela.org and we will take it from there.

7. Date for your diaries

Our next annual Conference will take place between 7-9 July 2017 in Nottingham. I very much hope to see you there.

Regards,

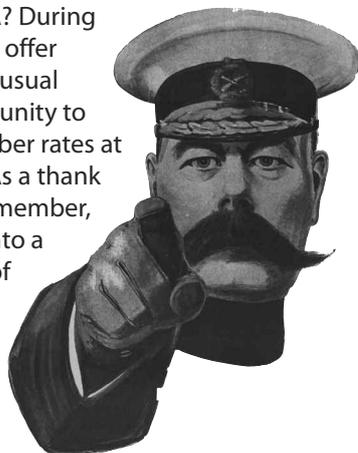


Stephen Sykes
UKELA Chair

News

Your UKELA needs you!

Do you know someone who would be interested in joining UKELA? During August and September, we offer membership at 50% of the usual cost*. This is a great opportunity to join and benefit from member rates at our wide range of [events](#). As a thank you for introducing a new member, we will enter both of you into a prize draw to win a bottle of UK bubbly*. For more details of the Summer membership offer, see our [website](#).



*terms and conditions apply

International Membership

We are delighted in this, our internationally-themed year, to introduce a special rate for overseas members. This will be an across the board rate of £30 per member (with the exception of students, graduates and unwaged members where the rate will remain £15) and will be introduced for the 2017 membership year. For new members only, this special rate will be available immediately – we would encourage you to let your international contacts know about this excellent, value-for-money offer. For further details, see our [website](#).

Elections – results

We were delighted that so many members put themselves forward for election to Council this year. We had 9 candidates for 4 places. The results were declared at the AGM and I am pleased to let you know that James Burton of 39 Essex Chambers and Hayley Tam of Lexis Nexis were re-elected to serve a further 4 years on Council. Joining them are Charlie Banner of Landmark Chambers and Heather Hamilton of ClientEarth. They are all very welcome! Read more about Charlie and Heather below.

New trustees

Charles Banner is a barrister at Landmark Chambers. He was called to the Bar of England & Wales in 2004 and also practices in Northern Ireland (called 2010) and the Dubai IFC Courts (Part II registered 2015). His specialisms include environmental law, planning & infrastructure, energy & natural resources, EU law and international law. He is a member of the Attorney-General's A Panel of Junior Counsel to the Crown.



Heather Hamilton has been a Lawyer in the Biodiversity Team at ClientEarth since September 2014. Her work focuses on the implementation of the Common Fisheries Policy, as well as its interaction with EU environmental legislation such as the Birds and Habitats Directives. Prior to joining ClientEarth, Heather was a solicitor at Richard Buxton Environmental and Public Law, working on judicial review and nuisance cases. She qualified as a solicitor in England and Wales in 2013 and holds a degree in law from the University of Oxford (MA Oxon). In 2010 Heather completed an LLM in Environmental Law and Policy at University College London, during which she completed a dissertation looking at the UK Marine and Coastal Access Act 2009. Heather has been involved with UKELA since she was a student. As a member of UKELA Council she will continue her Young UKELA role and work on membership development.



Convenor(s) Sought to Lead Planning & Sustainable Development Working Party

Do you have the skills and knowledge to lead UKELA's Planning & Sustainable Development Working Party? The existing Convenor is stepping down as a result of a relocation, creating an opportunity for one or more new Convenors to put their stamp on the group's work. This opening comes at a crucial time in this area of law, when domestic planning and housing and European/international developments are top of the agenda.

Working Parties are the mechanism by which UKELA enables members to focus on, and keep up to date with, policy, regulatory and legislative developments.

The role of Working Party Convenor involves: ensuring that Working Party activities are relevant to members' needs;

- co-ordinating "horizon scanning" to identify new trends and developments;
- overseeing and administering Working Party influencing work, events and communications, with support from UKELA staff and volunteer colleagues.

If you would like to find out more about this role, please contact UKELA's Working Party Advisor, Rosie Oliver (rosie@ukela.org) or speak to Executive Director, Linda Farrow, on 07970 956 171 or via email (linda@ukela.org).

Brexit News

UKELA specialists engaging to protect and improve environmental law

UKELA has been exploring what Brexit might mean for UK's environmental policies and laws for some time through events, papers and responses to inquiries and consultations.

In a [statement](#) issued on 20 July, UKELA makes clear its view that existing levels of environmental protection and public participation in environmental decisions must be maintained in any changes to domestic legislation that arise from Brexit.

"We want to see ongoing compliance with international law and applicable EU law, and regulatory stability. There must be no diminution in the protection given to the environment." commented UKELA Chair, Stephen Sykes. "Our position has been informed by our recent annual conference, on the theme of International Law, where over 200 members made their views known on the way forward."

"Our members and specialist Working Parties want to make their knowledge and experience available in the right way at the right time to help maintain and improve environmental protection in the Brexit negotiations." added Linda Farrow, UKELA Executive Director. "Trustees have given this their full support at their meeting earlier in July."

Notes to Editors

Brexit – UKELA Position Statement Context

The prospect of the UK withdrawing from the EU following the 23rd June referendum result raises big questions about the future of UK environmental protection and regulation. Much will depend on the terms of the negotiated settlement for a UK withdrawal (or 'Brexit'), and in particular whether this involves obligations on the UK to continue to comply with EU laws that affect the environment.

UKELA has been exploring what Brexit might mean for UK's environmental policies and laws for some time through events, papers and responses to inquiries and consultations. This ongoing work is available on UKELA's website at www.ukela.org/brexit

Position Statement

UKELA considers it imperative that the UK's current environmental legislation is preserved pending proper review, full and open consultation on options for change and the involvement of Parliament as far as possible.

UKELA considers preservation is critically important in order to ensure ongoing compliance with international law and applicable EU law, regulatory stability and continued protection of the environment.

UKELA considers that the level of environmental protection, and the ability of citizens to participate in environmental decisions and take action in the courts where necessary, must not be diminished by any future changes to domestic legislation.

The development of a post-Brexit framework of environmental legislation presents a unique and critically important opportunity for the UK Government and devolved administrations to explore ways of improving and strengthening environmental regulation.

UKELA will ensure that the UK Government, devolved administrations and regulators are aware of the immense body of legal expertise within the association that may be employed to assist with the next steps.

For further information, see [UKELA's Position on Brexit](#).

News from the devolved administrations

Wales

The UKELA Wales Working Party held an event on Brexit and the implications for environmental law in Wales in April this year. This helped to identify, in advance of the referendum, the issues that will be particularly relevant to Wales in a post-Brexit environment.

The Welsh Government has already begun to meet with stakeholders to discuss priorities in environmental law which have been identified as: agriculture, fisheries, animal health, protection of the natural environment and biodiversity. These are all areas where the Welsh Government currently has considerable powers. Nevertheless, co-operation between the UK and Wales will be a necessity in areas of transboundary pollution, just as this will remain an important concern in continuing relations with the EU. On the other hand, the Welsh Government may nevertheless wish to argue for powers to define the regulatory approach to such problems, particularly in light of the new approach to sustainable natural resource management under the Environment (Wales) Act 2016.

The impact of Brexit on the passage of the Wales Bill is now, therefore, particularly pressing. Not only does this refer to the requirement to comply with EU law as a constraint on the competence of the National Assembly for Wales, but the specific reservations in the Bill might also need to be reconsidered in the light of Brexit. While all areas of the UK will be concerned about agricultural funding, West Wales and the Valleys have also qualified for significant EU funding for many years and projects will have been planned for the current funding period to 2018. In a statement on 6 July, the First Minister suggested that there is considerable uncertainty over funding affecting rural areas at present.

Welsh Legislative Update

Royal assent for Environment (Wales) Act 2016 (EA)

The Environment (Wales) Act 2016 received Royal Assent on 21 March 2016. It is a relatively wide-ranging provision which introduces measures relating to:

- Part 1 Sustainable management of natural resources (introducing a biodiversity duty on public 'authorities' and additional duties on public 'bodies' generally and NRW and the Welsh Ministers in particular)
- Part 2 Climate change (setting Wales' regional targets aimed at achieving the targets in the Climate Change Act 2008)

- Part 3 Enhanced charges for carrier bags
- Part 4 Collection and disposal of waste
- Part 5 Fisheries for shellfish
- Part 6 Marine licensing
- Part 7 Various miscellaneous provisions including setting up a flood and coastal erosion committee, adjustment of land drainage provisions and changes to bylaws made by National Resources Wales.

Arguably the most significant of these is part 1 which creates a 'biodiversity and ecological resilience duty' on public authorities (see s.6(1)). A 'public authority' is more widely defined than a 'public body' and includes, for instance, statutory undertakers which operate in Wales (whether exclusively or not – see s.6(9)(g) and s.6(10)). The duty requires that:

- 1 A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.
- 2 In complying with subsection (1), a public authority must take account of the resilience of ecosystems, in particular the following aspects:
 - (a) diversity between and within ecosystems;
 - (b) the connections between and within ecosystems;
 - (c) the scale of ecosystems;
 - (d) the condition of ecosystems (including their structure and functioning);
 - (e) the adaptability of ecosystems.

New duties are also imposed on 'public bodies'. Thus the Welsh Ministers are subjected to a duty to prepare and maintain biodiversity lists and to take all reasonable steps to maintain and enhance biodiversity in Wales (s.7), as well as a duty to prepare and implement a national natural resources policy (s.9). National Resources Wales' general statutory purpose is redefined (s.5) and it too is subject to a new duty to prepare and publish a 'state of natural resources report'. More generally, NRW is required to generate areas statements for specified areas in Wales (s.11), and the Welsh Ministers may issue directions to public bodies to take steps in relation to the implementation of those areas statements which may be enforced by means of a court order (s.12).

In summary, the provisions in Part 1 are the Welsh Government's attempt to implement an ecosystem services approach, under the supervision of NRW, for the management of natural resources in the principality.

Parts 1, 2, 5 and some elements of Part 7 came into force on 21 May 2016.

Historic Environment (Wales) Act 2016

This makes provision for the protection of buildings of historic interest in Wales and will be of interest to anyone instructed in relation to ancient monuments or listed buildings in Wales. It too received the Royal Assent on 21 March 2016 and most of it is already in force.

Well-being duty in force

Almost all of the Well-being of Future Generations Act 2016 (WFGA) has now entered into force, as of 1 April 2016, by virtue of the Well-Being of Future Generation (Wales) Act (Commencement No. 2) Order, 2016 No. 86 (W. 40) (C. 8).

In summary, 43 public bodies in Wales are now subject to a well-being duty laid out in s.3 of the Act requiring them to 'carry out sustainable development' by setting well-being objectives designed to maximise the public body's contribution to the achievement of national well-being goals. All reasonable steps must then be taken to achieve the well-being objectives. In addition, each local authority area is required to set up Public Services Boards which are also subject to the well-being duty in their own right. Finally, in certain areas local community councils are also under a duty to assist PSBs in achieving their well-being goals. Oversight of implementation and discharge of these various duties is jointly shared between the Auditor General of Wales, the Welsh Ministers, the Future Generations Commissioner (Sophie Howe) and local scrutiny committees in each local authority area.

The [statutory guidance](#) on the Act has also been finalised. The guidance provides a good deal of additional information on the setting of objectives and the well-being goals, though there is little or nothing on the meaning of 'reasonable steps'.

UKELA Events

Young UKELA Social: The London Ear – 11 September, London

Join Young UKELA this autumn on a sound-themed walk through the City of London. With UKELA having recently established a working party on Noise, the walk is a timely opportunity to tune in and think about the full range of city sounds that engulf, delight or disturb us. This social event is free to join but is for Young UKELA members only and all places must be booked [online](#).

London meeting on Air Quality – 19 September, London

Join us for an early evening seminar on the hot topic of Air Quality. Expert speakers from ClientEarth, Greater London Authority and Kings College will update on the latest issues. For more information, visit our [website](#).

Housing Growth and the Environment – 6 October, London

Join us for a joint event with PEBA where expert speakers will consider housing growth issues including balancing the need for housing with environmental constraints; long term planning and what this means for practitioners promoting housing projects. For more information, visit our [website](#).

Waste Working Party meeting – 12 October, London

4-6pm at RPC, Tower Bridge House, St Katharine's Way, London E1W 1AA. Meeting details to follow. To book, contact the Convenors, details of whom can be found on our [website](#).

Non-UKELA events

Castle Debates: Brexit, what does it mean for the Environment? – 26 September, London

Details can be found on the Castle Debates [website](#).

UKELA Diary Dates

Wales Working Party seminar on Planning Law at 5.30pm, Cardiff – 20 September

London meeting on Environmental Quality Directive – 14 November

Annual Garner lecture – 16 November

Student Careers evening – 23 November

Students News

Andrew Lees Essay Prize Winner

Congratulations to our 2016 winner, John Morgan! John is a trainee solicitor with Brodies LLP in Glasgow. He will qualify later in 2016 and is interested in the international mechanisms for the advancement of environmental policy. His winning essay has already been published on the UKELA website as well as in this edition of elaw. The prize was a free place to the UKELA Annual Conference, held in Brighton. Of his experience, John said: 'it was an eye opening, inspiring and informative event and I am already planning my return next year!'

UKELA Careers Evening – 23 November

Once again kindly hosted by Francis Taylor Building Chambers in London – save the date!

This is a great evening aimed at students and anyone interested in a career in environmental law. There will be opportunities to meet and chat to a wide range of professionals. In past years this has included barristers, private practice lawyers, Government lawyers, NGO lawyers and consultants.

e-law Student Publication Opportunity: Devolution

Interested in co-authoring a hot topic article with an environmental professional? We provide opportunities for students to publish their work in e-law, which is circulated to over 1400 practitioners. The theme of the next issue of e-law will be "Devolution". If selected, your article should be written with the assistance of a practitioner in that field. Articles can be on the elaw issue theme or on any topic related to environmental law.

If you'd like to contribute a piece for consideration, please submit a short (less than 500 words) summary or abstract to one of our Student Advisers at emma_lui@hotmail.com or m_a_davies@hotmail.com by 24 August 2016. We look forward to reading your submissions.

ELSA/UKELA International Legal Research Group – Call for Topics

The European Law Students' Association (ELSA) is the largest law student network in the world, with over 42000 members across 300 law faculties. ELSA academic activities are those which develop the legal skills of ELSA members. Specifically, a Legal Research Group is an opportunity for students to develop these skills whilst providing valuable interjurisdictional research to the legal community. For more information on how to get involved, see the [Adverts](#) section in this edition of elaw.

UKELA Andrew Lees Essay Prize 2016



The Paris Climate Agreement is based on what countries say they will do, and not on what they must do, to avoid catastrophic climate change. It is too little, too late?

John Morgan, Trainee Solicitor at Brodies LLP and 2016 Winner of Andrew Lees Prize

"Le temps est un grand maître, dit-on, le malheur est qu'il tue ses élèves." – Berlioz¹

In the ruins of the Copenhagen conference, a 'crime scene, with guilty men and women fleeing to the airport', it was apparent that avoiding catastrophic global warming would require not just a radically different model of politics, but perhaps a new legal approach.² Contrastingly, the Paris Agreement ('PA') has been hailed variously as 'a diplomatic triumph'³, 'a major leap for mankind'⁴, and 'transformational'⁵. This near-universal acclaim should at least raise suspicions, as such positive words have been heard before. The ill-fated Kyoto Protocol was declared as sitting alongside the Treaty of Versailles and the Bretton Woods Agreement.⁶ Is the PA any different?

Legal form

The PA, as 'an international agreement concluded between states in written form and governed by international law', is undoubtedly a treaty.⁷ As such, it binds the signatory states in the same way as any other treaty.⁸ However, specific provisions within the PA are a curious hybrid of legally binding and non-binding provisions. This mixture was the result of some exquisite realpolitik, required to avoid the need for US Senate consent to ratification and gain support from states such as China who wished to avoid incursion into their national sovereignty.⁹

The extent to which the PA creates obligations which states can then be held to is uncertain. UN climate head Christiana Figueres has admitted that "bindingness is a word... [which] doesn't really exist... there is a much more nuanced consideration of legal nature of the different components".¹⁰ The much heralded 1.5°C and 2°C targets are simply stated objectives: "holding the increase in the global average temperature to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5°C".¹¹ This pronouncement does not create an obligation on parties. The obligation is that: "Each Party shall prepare, communicate and maintain nationally determined contributions (NDCs) that it

intends to achieve. Parties shall pursue domestic mitigation measures with the aim of achieving the objectives of such contributions." This is a formulation known to international law, and does not create general obligations to pursue the 2°C goal on which individuals or other states can rely.¹² This is not a fatal weakness, as inter-state actions on environmental grounds are admittedly incredibly rare, but remains one which could have repercussions for the success of the PA.

The PA is not prescriptive. It does not specify a target date for peaking emissions, or indeed a reduction goal for emissions at all, in the same way that previous agreements have done. The agreement instead declares that "Parties aim to reach global peaking of greenhouse gas emissions as soon as possible... and to undertake rapid reductions thereafter... so as to achieve a balance [between emissions and removals] in the second half of this century". Again, this is framed as an aim rather than obligation. The ambition of the goal itself can also be criticised: on a plain reading of the words, parties could achieve a balance only in 2099 and still meet this goal, supposedly made in recognition of the urgency needed to address climate change.¹³

NDCs – insufficiently binding?

While the intentions declared in the principal agreement are laudable, the meat of the PA is contained within NDCs submitted by parties. There are divergent opinions about the nature of NDCs, with European parties declaring them legally binding and the US government maintaining that they constitute political commitments. But what is the nature of NDCs? A persuasive report of the negotiating process paints the eventual compromise as tying parties to "obligations of conduct, but not obligations of result" – in other words, parties are bound to pursue the headline goal; but the methods, including the targets by each party, remain their own to set.¹⁴

Some believe the non-binding nature of NDCs will not prove detrimental to the PA's effectiveness. *Bodansky* argues that to prioritise 'bindingness' is to neglect the

risk that binding emissions targets would limit parties' ambition in NDCs and perhaps even actual participation in the PA.¹⁵ It is true that in failing to provide for an enforcement mechanism, parties are free to make perhaps more ambitious NDCs than they would otherwise make; but similarly there is less (indeed, nothing) to hold them to the undertakings they do make. This would be a more understandable position if the existing NDCs were particularly ambitious, but (as demonstrated above) existing NDCs are insufficient to avoid catastrophic climate change.

European leaders attempted to put positive spin on the lack of binding NDCs, requesting 'not [to] be judged on a clause in a sentence, but on the text as a whole... not... judged on a word, but on an act'.¹⁶ Yet the lack of certainty is undoubtedly a weakness. The characterisation of NDCs matters not just for the impact on enforcement but because, were they legally binding, they would have been the "highest form of political will, an expression of an intent to be bound, and an indication that others can act in reliance"¹⁷. This would have catalysed international institutions such as the World Bank to aid in reaching the targets.¹⁸ The message sent to private and public actors differs depending on the nature of the undertaking given by parties, and the reaction of the markets following the agreement is telling. In the weekend following the agreement, shares in renewable sector companies rose by only around 10%, while more traditional energy firms fell.¹⁹ While one should not place too much faith in the rational market, they clearly do not consider the PA to be a revolutionary approach. Binding NDCs would also have been more durable in the face of changes in government, would have strengthened and aided interpretation of domestic laws²⁰, and would have provided greater certainty to states that their 'competitors' in the global economy would not cut corners in an attempt to gain economic advantage. Indeed, several states have built this into their NDCs – only committing them to full implementation of their contributions when a set level of effort has been undertaken by other parties.²¹ Had NDCs been binding, such qualifications – which may ultimately prove the undermining of the PA – would not have been necessary.

Ultimately fruitless?

Any assessment of whether the PA will avoid catastrophic climate change must recognise the upper limit beyond which climate change becomes unsafe. The 2°C limit, first supported by an international body in 1996,²² has been universally recognised (except fringe opinion) by the scientific community as representing the limit beyond which catastrophic repercussions would be felt not just by particularly sensitive locales such as sub-Saharan Africa and low lying states, but across more previously resilient locations.²³ Yet even if global temperature rises can be limited to 2°C, an ambition which by no means is

certain to be reached, there will still be severe repercussions: scientists expect sea levels to rise by 1 metre, wildfires in the Amazon to double, and increased prevalence and severity of droughts. Many species would face increased extinction risk. Food security, particularly of staple crops wheat, rice and maize, and also surface and groundwater, will be undermined, particularly in sensitive areas.²⁴ This will be particularly acute as these areas are also projected to be subject to massive population increases in the same time span.²⁵ The political ramifications of this, already felt during the Arab Spring, could reverberate across the world.²⁶ For this reason, the reaction by the scientific community to the PA has been muted.

It was glaringly apparent prior to the conference that NDCs already declared were sorely insufficient to limit increases to 2°C. NDCs declared thus far are expected to merely slow the growth in emissions in the 2010-2030 period by 10-57% than the growth in the 1990-2010 period.²⁷ This slowing of growth, rather than reversal, means that NDCs declared within the first round are widely regarded as insufficient to limit warming to 2°C.²⁸ Instead, they are expected to limit warming to between 2.7°C and 3.7°C.²⁹ This is instead of a potential 4°C increase by 2100 without action.³⁰ Additionally, existing NDCs only represent 86 per cent of global emissions, as some sectors (such as air travel and freight shipping) and gases are not covered by NDCs as they stand.³¹ Some concede that "actually delivering [increases of] 1.5°C is simply incompatible with democracy", as the cuts required would be more than most populations would voluntarily submit to.³² Yet this 1.5°C limit represents the minimum requirement for small island states, and parts of low lying countries like Bangladesh, the Philippines and Vietnam, to survive.³³ If the elimination of states can be described as catastrophic then even the 2°C goal – assuming it can be reached – will lead to catastrophe.

Specific NDCs also give cause for concern. In particular, China – now the world's largest emitter – has merely committed to reducing its carbon intensity and only stated an expectation that its emissions will peak; while India's carbon intensity target is thought to be practically impossible to meet alongside its projected economic development.³⁴ Yet NDCs such as peaking of carbon intensity by 2030 are far short of the more drastic cuts required to mitigate catastrophic climate change. Indeed, some figures estimate that even waiting until 2020 would be too late to limit warming to 2°C.³⁵ It is clear that without enhanced ambition, the existing NDCs are likely to merely limit warming to a level insufficient to avoid catastrophic climate change.

Ratcheting

The PA's method of addressing this obvious gap is the inclusion of a 'ratcheting-up' mechanism, requiring "each party's successive NDC [to] represent a

progression beyond the party's then current NDC, and reflect its highest possible ambition".³⁶ Yet therein lies the inherent weakness of the PA – despite good intentions at present, there is no 'stick' to push parties to increase their contributions. The minimum requirement is that each NDC 'represents progression'; there is no definition of what may constitute progression, for that progression to be sufficient to limit emissions to 2°C, or penalties for lack of progression. The mechanism for maintaining compliance is not legal, or even quasi-legal; while there may be ratification mechanisms employed by some governments which allow action in domestic courts, NDCs are not directly 'enforceable' as international lawyers would understand.³⁷ The COP decision agreeing the PA specifically declares that there is no basis for liability or compensation in respect of loss or damage arising from non-compliance with the agreement.³⁸ The 'teeth' of the PA is political: increasing emissions targets will be reliant on continued willpower.

Where will this willpower come from? Many have placed their hope on the transparency provided by the requirement that parties are to produce "biennial reports... [submitted to] international assessment and review and international consultation and analysis".³⁹ In addition, there is a requirement that parties submit emissions reduction targets, and a regular review mechanism, a 'global stocktake', on attempts to reach the target.⁴⁰ This transparency is expected to increase trust between parties; and put pressure on parties from populations and corporate entities looking to reap reputational rewards from being associated with positive action on climate change. The parties have made much of the transparency mechanisms, yet with much detail left to the parties to agree in the future and with developing countries having been afforded flexibility in the scope and frequency of reporting requirements⁴¹, the optimism may yet be misplaced. Few forget that strong reporting and compliance mechanisms were built into the Kyoto agreement without much success at steering parties toward compliance. It is to be hoped that the softer PA regime will instead build trust and encourage action, in contrast with the way parties to Kyoto viewed reporting simply as leading to sanctions. But this is only a hope.

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The e-law 60 second interview



Ben Stansfield, UKELA Vice Chair

What is your current role?

Within UKELA, I am one of the Vice Chairs on Council. At Stephenson Harwood, I am the Head of the Environment and Planning Group, and at home I am the gardener and catcher/releaser of in-house spiders.

How did you get into environmental law?

I was a paralegal at Slaughter and May working for Paul Davies (now at Latham and Watkins) and Nigel Price (now at Macfarlanes) and Ed Keeble (now retired). They were great times and their enthusiasm was infectious.

What are the main challenges in your work?

Keeping up-to-date with legal developments has always been tough, but environmental lawyers inevitably work across a wide variety of sectors and staying on top of non-legal developments in clients' markets is a constant challenge.

What environmental issue keeps you awake at night?

Whether to buy a fully electric car (head) or something more sporty (heart). My mid-life crisis has begun.

What's the biggest single thing that would make a difference to environmental protection and well-being?

If we all stopped eating and using animal products. We already don't have enough land to rear animals to eat, to milk, to clothe us, to test our cosmetics etc. and the human population is rising dramatically. Meat and dairy consumption accounts for a huge percentage of our fresh water consumption and greenhouse gas emissions. So even before you get on to the ethical and health benefits, the environmental arguments to go plant-powered are compelling – #GoVegan!

What's your UKELA working party of choice and why?

Being on Council has meant I've not been a WP regular in recent times. However, I went to the Waste WP event at the Conference and it was excellent, so I hope to get more involved with that.

What's the biggest benefit to you of UKELA membership?

Networking and education – like many other members.

UKELA Conference – Brighton

Ben Stansfield, UKELA Vice Chair

In the Summer of 1964, two rival gangs travelled down to Brighton and ran battles on the beach and promenade: deckchairs were broken, holidaymakers were jostled and residents terrified. The Rockers, clad in leather lived for high speed, whereas the Mods took a slower pace but wore the latest fashions from the Continent.

With the Mods and Rockers in mind, it was with some anxiety that the UKELA Conference Organisers agreed to the suggestion that two rival gangs head to the South Coast: the Recyclists, led by Messrs Wald and Burton, clad in lycra (the new leather apparently) and pushing for ever higher-speeds; and the Walkers, led by Lord Carnwath, sporting the latest Gore-Tex hiking gear and looking for a more relaxed pace through the South Downs.

Both gangs arrived on campus at a similar time, but the deckchairs were left alone, and neither holidaymakers nor residents noticed that two hundred people had arrived in town to discuss Environmental Law.

The international theme given to the conference could barely have been better timed, against the backdrop of the BREXIT vote barely a week beforehand. A year ago, the Conference venue had been a race between Brighton and Brussels and in theme and venue decisions, the coin landed the right way up both times.

The Friday plenary got off to a flyer, with Nick Dunlop of the Climate Parliament re-igniting our shared passion for the Environment, telling us that releasing trapped arctic methane is a “foot to the floor” for climate change. Following Nick’s address, Lord Carnwath chaired a first for UKELA – an Environmental Question Time, with questions from the floor fired at a range of experts and BREXIT inevitably dominated.

A new theme for the conference emerged on the Friday night – drinks, dining, discourse and dancing. Oh, and a pop-up photo-booth appeared – an opportunity for those not at the Bar to dress up! Some on the dancefloor thought the DJ had gone too early when he played Bon Jovi’s “Livin’ On a Prayer”, but Alison and Elly-Mae insisted otherwise...and were proven right.

Saturday morning delegates had a choice of plenary, depending on their particular interests. This too, was a UKELA first and both sessions were well-attended and audience members tweeted throughout to help share speakers’ messages. The late morning plenary brought us together once again, for a final series of speakers, moderated by Justine Thornton QC.



On Saturday afternoon, we went our separate ways killing time before the Gala Dinner. Some rode bicycles, some tasted wine, some toured the City, some hunted for treasure, some looked around the Royal Pavilion; and others (the really cool ones) bought new shoes.

The Gala Dinner was held at the Brighton Dome on Saturday night. We mingled, we sipped, we laughed, we discussed, and we ate in wonderful surroundings. Terry A’Hearn, the CEO of SEPA ended matters perfectly, explaining that law and regulation should be used to maximise outcomes for business and the environment.

Our thanks go to Origin Events, the UKELA Staff, our Speakers and Moderators, Sponsors and all delegates for putting so much energy and enthusiasm into the Conference.

We would really value your feedback on the Conference to help us with our planning for next year. It takes just a few minutes of your time with all entries entered into a draw for a bottle of bubbly! You can complete the short feedback survey online [insert link: fluidsurveys.com/surveys/ukela/annual-conference-feedback-2016/]. Thanks to everyone who has already provided their comments.

The Walkers' report

Lorrae Hendry, Stephenson Harwood

After keeping a keen eye on the horrendous weather all week the Walkers arrived at Plumpton Station prepared for all weather but secretly crossing their fingers for a dry morning. We were in luck – the weather gods treated us to a dry (although grey) and cool day and it made the walk all the more enjoyable.

We were met at the station by a breakfast car with hot tea and coffee and some well-placed merchandise to set us on our way. During the walk we were guided by the excellent and extremely knowledgeable Rangers from South Downs National Park.

The Rangers treated us to a wide variety of information including how the South Downs were formed and why the environment there is so special. During the walk over the South Downs we had welcome breaks to learn about a range of things including the beautiful wild orchids that grow in this unique landscape and the different bird calls that could be heard. The Rangers shared creative ways for remembering bird calls, including one in particular, that sounded like an old dial up modem – which, if you stretch your memory back, you may just be able to remember (and some of our younger student readers may not know at all).

The pace of the walk picked up slightly nearer the end as the Conference starting time drew nearer (or stomachs started to rumble, keen for lunch!) and the walk took us from picturesque countryside one minute to the University campus the next. The connections made during the walk and the enjoyment had by all certainly put the Walkers in an excellent frame of mind for the Conference.

I'm sure the success of the inaugural walk will see it become a regular feature of the Conference Programme and this group will become a group to rival and surpass the extremely popular and worthy Recyclists. The only thing missing is a catchy name – something to work on for next year perhaps?



Environmental law headlines

June-July 2016

A selection of recent environmental law news and updates prepared by the teams at [LexisPSL Environment](#) and [Practical Law Environment](#).

Department of Energy and Climate Change abolished

LexisPSL Environment

On 14 July 2016, it was announced that the Department of Energy and Climate Change (DECC) is being merged with the Department of Business, Innovation & Skills (BIS) to form a new Department for Business, Energy and Industrial Strategy (BEIS). According to the newly appointed Secretary of State for BEIS, Greg Clark, the department has been 'charged with delivering a comprehensive industrial strategy, leading government's relationship with business, furthering our world-class science base, delivering affordable, clean energy and tackling climate change'.

The Chair of the Energy and Climate Change Committee, Angus Brendan McNeil has expressed concern following the decision to abolish DECC. Among his concerns were reduced investor confidence in the energy sector following Brexit, as well as who will be responsible for ensuring climate change targets are met. See LexisPSL: [LNB News 15/07/2016 114](#).

For further commentary, see the LexisPSL blog post on the developments: [Going, going, gone—farewell to DECC](#).

Committee on Climate Change publishes report and government publishes response on compatibility of shale gas with carbon budgets

Practical Law Environment

On 7 July 2016, the Committee on Climate Change (CCC) published its report on the compatibility of shale gas exploration in the UK with meeting the UK's carbon budgets under the Climate Change Act 2008. The CCC concluded that shale gas fracking on a significant scale would not be compatible with the UK's carbon budgets, unless three strict tests were met.

The tests relate to:

- tight regulation and monitoring of greenhouse gas (GHG) emissions from well development, production and decommissioning;
- keeping gas consumption in line with carbon budgets requirements, and reducing unabated fossil fuel energy consumption over time;
- offsetting additional production emissions from shale gas wells by reducing GHG emissions in other UK sectors.

Also on 7 July 2016, the government published its response to the CCC's report. The government believes that the existing regulatory regime for shale gas development means that the CCC's three tests will be met. It has decided that the Secretary of State will not lay regulations before Parliament to remove the statutory right to use deep-level land (introduced under the Infrastructure Act 2015).

For more information, see Practical Law's [Legal update, Committee on Climate Change publishes report and government publishes response on compatibility of shale gas with carbon budgets](#).

House of Commons Select Committees launch inquiries into the implications of leaving the EU for environment, energy and climate change

LexisPSL Environment

On 6 July 2016, the Energy and Climate Change Committee launched an inquiry on '[Leaving the EU: implications for UK climate policy](#)'. The inquiry aims to understand the likely effects of the UK's departure on its climate-change commitments and ambitions, and to determine which climate policy areas will need to be addressed during the UK's exit negotiations. It seeks guidance on an appropriate timeline for these developments. The deadline for written submissions is 22 August 2016.

On 7 July 2016, the Energy and Climate Change Committee commenced an inquiry into '[Leaving the EU: implications for UK energy policy inquiry](#)'. The inquiry aims to understand the implications of the UK's departure from the EU on UK energy policy, and determine which policy areas will need to be addressed during the exit negotiations. It is also seeking guidance on an appropriate timeline for these developments. The deadline for written submissions is 14 September 2016.

On 21 July 2016, the Environmental Audit Committee launched an inquiry on the '[Future of the Natural Environment after the EU Referendum](#)'. The inquiry aims to understand the likely effects of the UK's departure for funding for biodiversity and agri-environment schemes such as the Common Agricultural Policy (CAP) and Countryside Stewardship, the likely changes in the devolved administration, and the role that managed rewilding can play in conservation and restoration. The deadline for written submissions is 9 September 2016.

Clarification of when landfill tax applies to the “regulation” layer of a landfill site (High Court)

Practical Law Environment

On 23 June 2016, the High Court gave its decision in *R (Biffa Waste Services Ltd) v Revenue and Customs [2016] EWHC 1444 (Admin)*. The court had to consider an HMRC ruling given to Biffa in September 2009, which stated that the “regulation layer” at a particular Biffa landfill site in North Hertfordshire would not be subject to landfill tax. The regulation layer is the layer above the final layer of soft waste placed below the sealing cap of a landfill site.

In May 2012, HMRC revoked its September 2009 ruling and stated that the regulation layer at the North Hertfordshire site was in fact subject to landfill tax. The court decided that the September 2009 ruling:

- did not apply only to the North Hertfordshire site. Instead, it was a general statement by HMRC to the effect that a regulation layer at any of Biffa’s landfill sites would not be liable for landfill tax (until HMRC revoked that ruling in 2012);
- applied regardless of the nature of the materials used in the regulation layer. It was not the case that the regulation layer would only avoid landfill tax if soil was used. Instead, it was the fact that the material was used in the regulation layer that determined liability for landfill tax.

The court pointed out that there appeared to be other landfill operators who had taken the same approach as Biffa in relation to taxation of the regulation layer of their landfills. The decision highlights the policy confusion in recent years over the scope of landfill tax.

For more information, see Practice Law’s [Legal update, Clarification of when landfill tax applies to the regulation layer of a landfill site \(High Court\)](#).

European Commission publishes Communication and draft legislation on criteria for endocrine disruptors

Practical Law Environment

On 15 June 2016, the European Commission published draft Regulations setting out scientific criteria for determining endocrine disruptors under the EU Biocidal Products Regulation 2012 (*Regulation (EU) No 528/2012*) and the EU Plant Protection Products Regulation 2009 (*Regulation (EC) 1107/2009*). The two regimes prohibit biocides and pesticides that contain substances of very high concern (SVHCs) (which includes endocrine disruptors) from being placed on the EU market.

The draft Regulations set out the scientific criteria for determining endocrine disruptors. The criteria are based on the World Health Organisation (WHO) definition of an endocrine disruptor, which is widely accepted, despite particular conceptual problems with defining endocrine disruptors.

The Commission intends the new criteria to apply immediately.

The Commission has been subject to intense criticism for the delay in publishing the criteria. In particular, in December 2015, the General Court found that, by failing to adopt delegated acts specifying the scientific criteria for determining endocrine disruptors, the Commission had failed to fulfill its obligations under the Biocidal Products Regulation 2012 (*Sweden v Commission (T-521/14)*).

For more information, see Practical Law’s [Legal update, European Commission publishes Communication and draft legislation on criteria for endocrine disruptors](#).

UN committee finds the EU is breaching the Aarhus Convention

Lexis®PSL Environment

On 6 July 2016, the UN’s Aarhus Convention Compliance Committee found that the EU is breaching the Aarhus Convention in relation to access to justice in environmental matters. The Committee ruling comes following the case brought by ClientEarth against the EU for stopping citizens taking environmental cases to the European Court of Justice. The European Commission has until 25 July 2016 to respond. For further information, see Lexis®PSL: [LNB News 06/07/2016 64](#).

International Environmental Law

Climate litigation around the world is heating up



Sophie Marjanac, Lawyer at ClientEarth

At a glance

- The law is only just starting to respond to the multi-faceted challenges of climate change.
- Claimants are starting to use the law to encourage states and private parties to protect citizens from the loss and damage associated with climate change.
- This article considers four international cases demonstrating the variety and scope of potential climate change lawsuits.

Introduction

The Intergovernmental Panel on Climate Change (IPCC) has warned that the effects of climate change, such as higher temperatures, sea level rise and increasing extreme weather events will cause widespread loss, damage and harm to human health, property, infrastructure and the economy over the course of this century.¹ In fact, loss and damage associated with climate change is already occurring, and the scientific evidence of these links rapidly improving.² For example, scientists have calculated that recent floods in Germany and France in May 2016 were made almost twice as likely as a result of anthropogenic influence on climate.³

Curbing future climate change requires deep and immediate cuts to greenhouse gas emissions. Since the UNFCCC Paris Agreement was signed in November 2015, there has been renewed momentum towards strong global emissions reductions. Arguably, the watershed Paris Agreement signals the end of the fossil fuel era, and that the world is now on the path of transitioning to a low carbon economy, with significant implications for a range of state and private actors.

What is climate change litigation?

The way in which the law deals with the effects of climate change is still developing. Climate change poses novel and unique challenges for the law, as it is by its nature a global problem with multiple causes requiring co-ordination of a multi-faceted response.

It is clear that individuals, communities and businesses that have suffered or are likely to suffer losses as a result of climate change, or who seek greater mitigation of greenhouse gas emissions, will be likely to submit novel claims to courts and administrative

bodies to seek redress. Claims are also likely to relate to adaptation measures, such as policies affecting coastal lands. Future claimants may be property owners, municipalities, states or provinces, insurers, shareholders or public interest organisations who may bring actions against states or corporations. Climate change litigants may consider using public law avenues including constitutional, administrative or human rights claims, or private remedies such as tort, consumer law, product liability laws, or company or financial laws.

The past decade has seen several waves of climate change related lawsuits being brought around the world. Some claims seek mitigation of greenhouse gas emissions to prevent future harm, whilst others relate to adaptation (activities that aim to curb the negative effects on ecosystems, communities and infrastructure). This article gives some examples of recent climate litigation to demonstrate the variety and scope of potential claims. It is clear that despite some reticence among the judiciary to deal with this uniquely challenging issue, courts will increasingly be called upon to adjudicate a range of issues arising from the disruption caused by climate change.

Urgenda Foundation v State of the Netherlands

In a unique and unprecedented decision delivered in June 2015⁴, the District Court of the Hague found that the Netherlands government acted negligently and therefore unlawfully towards its current and future citizens, by failing to implement policy aimed at achieving sufficient reductions in national greenhouse gas emissions.

The court provided the Urgenda Foundation (acting on its own behalf and on behalf of 886 individual Dutch citizens) with injunctive relief, by ordering the Dutch State to limit the total national emissions to 25 percent by the year 2020, in contrast to its previous policy of achieving a reduction of approximately 16 percent compared to 2005 levels, by 2020, which was in line with targets set by the EU.

Urgenda argued that based on the global consensus on climate science as contained in the IPCC's various reports (which were accepted by the State and

consequently the court as evidence of the global consensus on climate science), excessive greenhouse gas emissions posed a severe and immediate threat to the health and wellbeing of the Dutch environment and people. It argued that therefore, the Dutch government had acted unlawfully and contrary to the duty of care it owes to Dutch society by failing to ensure that emissions were kept within the limits required to prevent warming of over 2 degrees celsius.

The claimants made arguments based on Dutch constitutional law, human rights law including Articles 2 and 8 of the European Convention on Human Rights and international law including the 'no harm' principle. The case was ultimately decided on the basis of the tort of 'unlawful hazardous negligence' as defined by the Dutch Civil Code, with human rights and international law principles providing the framework against which the State's exercise of power was judged.

Although standing is often an issue for claimants in climate change claims, Urgenda was able to rely on a wide standing provision in the Dutch Civil Code, which gives NGOs broad rights to bring claims to Court. Interestingly, however, the Court went even further and acknowledged that because of its aims and objectives, which were to promote 'sustainable development' in society, Urgenda could base its case on the interests of all persons globally, as well as *future* generations. It is therefore unique in using the principle of *intergenerational equity* to allow a party to represent the interests of unborn or future persons.

Crucially, the Court also accepted that Dutch emissions (although a small proportion of the global total), still contribute to global climate change and would therefore cause danger to Dutch citizens. This is a significant finding and appears to reveal acceptance of the concept of cumulative causation.

The decision has been controversial in the Netherlands, with many scholars questioning whether the court's decision is an impermissible usurpation of legislative power, and whether it is consistent with EU law. The Dutch government has appealed the decision, seeking to re-open all legal issues.

Despite this, the decision has had a profound impact internationally, inspiring litigation in New Zealand, Pakistan and Belgium. We understand that it has also provoked renewed debate regarding emission reductions targets in the Parliament of the Netherlands and has therefore had significant positive impact on domestic climate policy and debate.

Philippines Human Rights Commission Investigation into the 'Carbon Majors'

Greenpeace Southeast Asia (together with 13 Filipino civil society organisations and 18 individuals) submitted a petition to the Commission on Human Rights of the Philippines (Commission) in September 2015 (Petition). The Petition asked for an investigation of the "responsibility of the Carbon Majors for human rights violations or threats of violations resulting from the impacts of climate change".

The Petition names 47 investor-owned oil, natural gas and coal producers and cement manufacturers as respondents, referred to as the Carbon Majors. Research undertaken by Richard Heede of the Climate Accountability Institute⁵ names these companies as part of a group of 90 investor-owned, state-owned or government-run entities that are the largest producers of greenhouse gas emitting products since the industrial revolution.

The petitioners claim that the Carbon Majors are violating or threaten to violate the human rights of all Filipinos as contained in the 1987 Constitution, as well as the various international human rights treaties to which the Philippines is a signatory, as a result of their products' contribution to global climate change.

The petitioners acknowledge that it is not possible to attribute a specific harm to the carbon dioxide produced by a single Carbon Major. However, they argue that there is a significant possibility that the effects of climate change in the Philippines are made far worse as a result of the Carbon Majors' past and current activities. The Petition requests that the Commission use the concept of responsibility as set out in the UN's Guiding Principles on Business and Human Rights (Guiding Principles). Under the Guiding Principles, a company may be taken to be responsible for a human rights impact if it has contributed to, is involved in, or has failed to prevent those impacts, even if it is one among many responsible parties.

The Commission resolved to conduct an investigation in response to the Petition in December 2015. Although the Commission is not a judicial body, it has the power to compel persons accused of human rights violations to attend and testify at hearing or public inquiry or to produce relevant documentation. The Commission can also recommend that a claim be filed with a competent court.

A hearing in the matter is expected to be held at the end of 2016, after which time the Commission will provide a report containing its findings and recommendations to the Government of the Philippines.

Atmospheric Public Trust Litigation

The Oregon based NGO, Our Children's Trust⁶, has launched a co-ordinated campaign of litigation across the United States (US) on behalf of youth plaintiffs, based on the concept of the Atmospheric Public Trust, a legal theory developed by Professor Mary Wood of the University of Oregon.⁷

In the early history of the US, common law public rights in certain natural resources were expanded by the courts into what has become known as the 'public trust doctrine'.⁸ Broadly, the doctrine operates as a limitation on state power over certain resources, with the specific content of the doctrine varying from state to state. It may encompass both:

- a limitation on legislative power, and private property rights, by providing that certain natural resources cannot be alienated by the state or held by individuals; and
- a positive duty on the state to protect the resource held on trust, and to consider the public interest when dealing with trust property.⁹

Atmospheric public trust litigation seeks expansion of the doctrine to the global atmosphere, given the importance of atmospheric health to all civilisations and to human survival across the globe.¹⁰

Our Children's Trust have assisted young Americans to file lawsuits in each US state as well as in the federal jurisdiction, including both administrative rule-making petitions and allegations of breaches of the public trust.¹¹ The state lawsuits claim that each state has a positive duty to protect the atmosphere from the harmful effects of climate change, and accordingly, must reduce greenhouse gas emissions to a level which stabilises the concentration of CO₂ in the atmosphere at 350ppm.

Similarly a federal lawsuit alleged that the federal government also has a duty to protect the atmosphere which it holds on trust for the people, and that the US government must establish a plan for an immediate cap on greenhouse gas emissions.¹² Relief was denied by the US Supreme Court in 2014,¹³ affirming a lower court's finding that the public trust doctrine only arises in state law and that there is no federal public trust.¹⁴

In one of the most successful of the state suits, a Washington judge ordered the government to do more to reduce greenhouse gas emissions, however rejected the argument based on the atmospheric public trust. Instead, the judge based her decision on the state's obligations in respect of traditional trust resources, stating that:

"[t]he navigable waters and the atmosphere are intertwined and to argue a separation of the two, or to argue that GHG emissions do not effect navigable waters is nonsensical. Therefore the Public Trust Doctrine mandates that the state act through its designated agency to protect what it holds in trust."¹⁵

Children's Constitutional Challenge

Our Children's Trust has also recently assisted a group of young American citizens to launch a constitutional challenge against the US federal government, alleging that increasing CO₂ emissions is infringing their constitutional rights to life, liberty and property. The youth plaintiffs seek injunctive relief to force the US federal government to implement a national plan to phase out fossil fuel emissions. Three fossil fuel and energy trade associations were joined to the action and, together with the US government, filed motions to dismiss the case.

However, in April 2016, a US federal magistrate judge recommended refusal of the defendants' motions to dismiss on the basis of a lack of standing, stating that:

"[t]he intractability of the debates before Congress and state legislatures and the alleged valuing of short term economic interest despite the cost to human life, necessitates a need for the courts to evaluate the constitutional parameters of the action or inaction taken by the government."¹⁶

A hearing will be held in relation to this matter in September 2016.

Conclusion

Despite the many legal and evidential hurdles that climate change litigants face, there appears to be a growing trend towards using the courts to encourage emissions reductions, or to ensure that effective adaptive measures are taken by states and regional or local authorities.

Those affected by the effects of climate change may wish to request a range of remedies from the courts, including declaratory orders, compensatory damages or injunctive relief. The remedies that courts will be prepared to issue will depend on the particular facts and circumstances of the case. Other litigants concerned with the mitigation of climate change-related harms are likely to seek orders relating to the extraction and use of fossil fuel products. Climate litigants will also be interested in orders forcing companies to ensure business activities are consistent with national and international climate, environmental and human rights laws.

Although it is unclear what form future climate change litigation will take, it is clear that issues relating to climate change, liability and justice will need to be dealt with by the courts.

Climate change litigation is just heating up.

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Endnotes

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- 7 Wood, M, *Natures Trust*, Cambridge University Press, 2014.
- 8 Most famously in *Illinois Central Railroad v. Illinois Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387 (1892).
- 9 As found the Californian case of *National Audubon Society v Superior Court* 658 P 2d 709 (Cal 1983).
- 10 See Wood, M, *Natures Trust*, Cambridge University Press, 2014 p 126, also Ellis, J, 'The Sky's the Limit: Applying the Public Trust Doctrine to the Atmosphere', (2013-14) 86(4) *Temple Law Review* 807.
- 11 See <http://ourchildrenstrust.org/Legal>
- 12 Business groups were joined to the suit: *Alec L. v. Jackson* (D.D.C. April 2, 2012)
- 13 *Alec L. v. McCarthy*, No. 14 – 405 (U.S. cert. denied Dec. 8, 2014).
- 14 For further discussion and criticism of this decision see Blumm & Schaffer, 'The Federal Public Trust Doctrine Misinterpreting Justice Kennedy and Illinois Central Railroad' (2015) 45(2) *Environmental Law* 399.
- 15 *Foster et al v Washington Department of Ecology* (Nov 19, 2015) available at http://ourchildrenstrust.org/sites/default/files/15.11.19.Order_FosterV.Ecology.pdf
- 16 For a link to the case and further information see <http://www.blog.clientearth.org/first-step-victory-climate-change-litigation-united-states/>

International Environmental Law

Law, Evidence, Nature and Politics



Alistair Taylor, Senior Policy Officer at the Royal Society for the Protection of Birds

At a glance

- Successive UK governments have signed up to commitments under international law to protect nature.
- EU nature laws fulfil many of the international obligations of EU Member States under Multilateral Environment Agreements including Bern Convention and the Convention on Biological Diversity (CBD).
- Scientific evidence has shown that the Nature Directives are delivering results, despite incomplete implementation and limited funding.
- Politically driven review processes at UK and EU levels corroborate the evidence, but political perception continues to fly in the face of the evidence.
- Brexit could mean EU Nature Directives cease to apply, but UK's national and international commitments remain.

International nature conservation laws came [as early as 1900](#), and a significant body of multilateral environmental agreements have built up over time. The UK is a signatory to many of these in its own right. Action to fulfil these international obligations has hitherto been delivered through national legislation, through national measures to implement EU Directives, regulations and policy instruments, and through EU-level initiatives such as the LIFE fund, which supports activities both within and outside the EU, and the EU's 'Global Public Goods and Challenges' Thematic Programme.

Delivering on International Commitments: the role of the EU Nature Directives

Two key legal instruments in this context are the EU's Birds Directive and Habitats Directive, which together establish a legal framework for the conservation of habitats and species, and establish the Natura 2000 network of protected sites. Peer-reviewed research has revealed how effective the implementing measures taken by EU Member States have been at halting the loss of biodiversity across Europe.

There is strong scientific evidence that the Birds Directive has had a demonstrably positive impact on target bird species, even during a period in which climate change has significantly affected populations of those bird species. The positive impact of the Birds

Directive on these populations is evident in countries that joined the EU in 2004, but is even more pronounced in countries that had been in the EU for longer. The long- and short-term trends of birds in an expanded EU show strong [evidence of the impact of the Birds Directive](#) that is additional to, and often greater than, that of other known drivers of population change, such as climate change, life history strategy (rate of reproduction and lifespan) and migration strategy (short or long distance).

Recent [scientific research](#) has also revealed the extent to which these two Directives alone enable the UK to deliver on its international nature conservation commitments. For example the Natura 2000 network makes a very significant contribution to achieving Target 11 of the [Aichi Targets](#), adopted within the Strategic Plan for Biodiversity of the CBD, to protect 17% of terrestrial areas, while EU species protection rules help achieve Target 12 to prevent the "extinction of known threatened species", and ensure that their "conservation status... has been improved", as well as contributing to wildlife conservation objectives under other international agreements.

The impacts of the Nature Directives extend beyond just nature conservation; as 65% of EU citizens live within 5 km of a Natura 2000 site, and 98% within 20 km, these sites have the potential to raise awareness of biodiversity and to deliver ecosystem services to a high proportion of the EU's population, contributing to Aichi Target 1. Research has also confirmed that the Nature Directives are helping to achieve climate change mitigation targets by storing carbon. Estimated below and above ground carbon stocks per unit area in Natura 2000 sites are 43% higher than the average across the rest of the EU.

Ridiculous burden? The England Habitats Regulations Review

In 2011, amid claims of 'gold-plating' the requirements and 'unnecessary burdens on business' the UK government launched a 'Review of the Implementation of the Birds and Habitats Directives in England'. This review, undertaken by the Department for the Environment and Rural Affairs (Defra), attracted a high level of stakeholder interest, with both the business and NGO sectors providing substantial evidence to inform its findings (see for example [here](#) and [here](#)).

The 'Report of the Habitats and Wild Birds Directives Implementation Review' was [published](#) in March 2012. In that report the UK Government reiterated its commitment¹ "to ensuring that England's most valuable habitats and species are protected and that development is carried out in a sustainable manner".

The review did not find evidence of 'gold-plating' or 'unnecessary burdens', and the headline conclusion of the Government's review² was that:

"It was clear from the wide range of evidence and views submitted in the course of the Review that in the large majority of cases the implementation of the Directives is working well, allowing both development of key infrastructure and ensuring that a high level of environmental protection is maintained".

It further concluded: "it is clear that there is scope for improving the way the Directives are implemented in England". Therefore, in addition to the findings of the review, the Report also detailed actions that the Government would take, "in partnership with others in the public, private and voluntary sectors, to improve implementation and in doing so strengthen the environmental purpose and integrity of the Directives".

Fit for purpose? The EU Fitness Check of the Nature Directives

In 2013 the European Commission announced a [Fitness Check of the Nature Directives](#) as part of its [Regulatory Fitness and Performance Programme](#) (REFIT). The REFIT programme was initiated in 2012 with the aim of making EU law simpler and less costly. Fitness checks, previously piloted in 2010, provide an evidence-based critical analysis of whether EU actions are proportionate to their objectives and delivering as expected.

The mandate for the Fitness Check of the Nature Directives confirmed that it was intended to be an evidence-based critical analysis of whether the laws were "fit for purpose". However, the [mission letter](#) issued by President Juncker to the new Environment and Fisheries Commissioner, Karmenu Vella, called on him "to carry out an in-depth evaluation of the Birds and Habitats directives and assess the potential for merging them into a more modern piece of legislation." This suggested that those in charge of the process at the highest level already had an outcome in mind regardless of the evidence.

The evidence gathering phase of the Fitness Check, conducted by consultants appointed by the Commission, ran from January 2015 until the end of July 2015, with draft interim findings being published at a stakeholder conference in November that year. These interim findings confirmed that, "where fully and properly implemented the Directives have

effectively reduced pressures on biodiversity, slowed declines and, with time, led to some recoveries of habitats and species" and that "the benefits of the site and species protection ensured by the Directives greatly exceed the costs of implementation at the EU, national and local levels."

The consultants' final report has now been [published](#) in response to a freedom of information request, and unequivocally states:

"This evaluation concludes that the Nature Directives are fit for purpose. The majority of the evidence gathered across the five evaluation criteria shows that the legislation itself is appropriately designed and that, over time, implementation has improved, bringing important outcomes and impacts ..."

The Commission's response, anticipated to take the form of a Staff Working Document, is expected in autumn this year.

Politics

Both the UK Habitats Regulations Review and the Commission's Fitness Check of the Birds and Habitats Directives were, in part, premised on a perception that these environmental regulations place an unnecessary burden on business. Both concluded that they do not, and identified gaps in implementation that are holding back the effective and efficient delivery of nature conservation, and, in some cases, causing headaches for developers.

In the case of the UK Habitats Regulations Review, although the Government committed to work with stakeholders to improve implementation, in a number of cases what was proposed fell short of what was required. Both NGOs and industry highlighted in their Review responses the loss of resources and expertise within the statutory nature conservation agencies as a key barrier to effective implementation (see [here](#), [here](#) and [here](#)). And yet related measures³ were confined to the inclusion of commitments to co-operation, transparency and delivery in the corporate plans of government agencies, staff exchange programmes, development of professional standards for ecologists and a workshop to explore ways of managing expertise. These were welcome, but do nothing to address the fundamental issues of resourcing and expertise. In other cases, calls for support in specific areas were not reflected in the measures identified. For example, [calls for guidance](#) on – and the promotion of – best practice were not addressed.

Publication of the results of the Commission's Fitness Check of the Nature Directives had been delayed due to interventions at the highest levels within the Commission. A Freedom of Information request has revealed that the Federation for German Industry (BDI)

wrote to the Commission in December 2015, and in January and February this year, disputing the consultants findings, proposing significant changes, and claiming the report, “gives a misrepresentation of the position of the German Industry.” The timings of these interventions suggest that the BDI had obtained a draft of what was, at that time, a confidential internal Commission document. The recent publication of the consultants’ final report has revealed that although the findings remain unchanged, additions have been made to the January 2016 leaked draft, reflecting some of the changes proposed by the BDI.

Both the UK Habitats Regulations Review and the Commission’s Fitness Check of the Nature Directives suggest that evidence-based policy making in relation to nature conservation is increasingly influenced by politics and perception.

Nature Conservation Post-Brexit

At the time of writing the nature of the UK’s future relationship with the EU remains unclear. Given that most of our environmental laws have over the past forty years evolved in parallel with the EU and the dominant land and sea uses have been governed by common agriculture and fisheries policies, the final arrangements could have major implications on nature conservation across the UK.

The evidence suggests that the existing legal framework, based on the EU Nature Directives, is effective, efficient, coherent with other EU and domestic laws, and continues to be relevant in the battle to halt the ongoing loss of biodiversity. There is also strong evidence that this legal framework enables the UK to fulfil its international obligations under the CBD and other multilateral environmental agreements. These commitments will of course endure, whatever the UK’s future relationship with the EU.

The question then is whether future UK nature conservation policy will be based on this evidence, or if political perception will once again be allowed to drive policy-making in preference to fact.

Alistair Taylor is a Senior Policy Officer at the Royal Society for the Protection of Birds where he has been leading policy advocacy targeting the Fitness Check of the Birds and Habitats Directives for RSPB in the UK and for the BirdLife Europe Partnership at EU level. He has played a leading role in influencing EU legislative and policy instruments including Regulation 1143/2014 on Invasive Alien Species and the EU Biodiversity Strategy to 2020. Alistair starts the LPC in September.

Endnotes

- 1 See Pg 1, para 1.
- 2 See Pg 13, para 27.
- 3 Measures 24, 26, 27 and 28.

International Environmental Law

Alberta's First Nations resistance to the Tar Sands



Angelika Kobl, Masters Student at the University of Graz, Austria

At a glance

- All over Canada, indigenous peoples are standing up to protest against industrial development on their lands, against climate change or for the recognition of their Aboriginal Title.
- There are both international and national laws in place protecting indigenous peoples and their spiritual, cultural and traditional ways of life.
- However, Canada has not been doing enough to implement both international and domestic indigenous peoples' rights.

Introduction: Canada's tar sands and First Nations' protests

Canada is home to the second-largest crude oil reserves in the world, with an estimated twenty-seven billion cubic metres of unprocessed oil underlying huge parts of Alberta, dwarfed only by Saudi Arabia.¹ The last decades have seen a substantial rise in the exploitation of these oil sands in Northern Canada. This is partly due to the fact that oil is consumed at a substantially higher rate than it is being discovered, which in turn influences the value of oil. When oil prices are high, capital-intensive processes like recovering heavy crude from tar sands become economically viable.²

Tar sands are very different to 'normal' oil reserves, as the so-called 'bitumen' is bound to sand, clay and silt that underlies boreal forests, rivers or muskegs mostly in Alberta, British Columbia and Saskatchewan. Extraction processes come at a high price economically and environmentally. Large amounts of fresh water and natural gas are used to get the bitumen out of the ground. For the production of one barrel of crude oil from the tar sands, more than three-times as much carbon dioxide is being produced compared to a barrel of conventional oil.³ Apart from increased carbon dioxide emissions, tar sands extraction leaves behind huge 'tailing ponds' of polluted water, devastated ecosystems with open pit mines in place of boreal forest and river systems, dwindling numbers of wildlife species,⁴ and infringements on the rights of First Nations living in the area.⁵

The aforementioned mining operations are found under the traditional lands of the Métis, the Dene and

Cree First Nations. These indigenous communities are particularly concerned about both the environmental impacts the tar sands industry is having, and the violations of their rights. Numerous protests and movements against tar sands proprietors have taken place, which has created state, federal, and international governmental responses.

In the following, I will explore some of these environmental movements and their legal basis. For this, I will first describe the historical context in which to view these protests, the international legal framework regarding indigenous peoples as well as making an attempt at explaining why the environment is so important to the First Nations. I will then focus on the Canadian legal landscape. In conclusion I will examine some of the environmental movements resisting tar sands mining.

Brief historical overview

The Constitution Act 1982 officially recognises three large groups of indigenous peoples in Canada; namely the Métis, the Inuit and the Indians. In the 2011 National Household Survey, 4.3% of Canadians identified as Aboriginal. Despite this low number, Canada is home to more than 600 distinct First Nations with over 60 different languages.⁶

According to a study by the Permanent Forum on Indigenous Issues (2014), "Canada has never proved it has legal or de jure sovereignty over Indigenous peoples' territories",⁷ which indicates that Canada has since been relying on the discriminatory 'Doctrine of Discovery' as well as the 'Terra Nullius' Doctrine that are [rooted in the fifteenth century](#).

As large parts of the oil sands lie beneath the 840,000 kilometers of land subject to Treaty 8 signed in 1899-1900 between Canada and the Dene and Cree First Nations, it is an important treaty to understand as it meant very different things for the parties involved.⁸ The treaty negotiations started after the discovery of petroleum in the area⁹ and government negotiators reassured the affected First Nations that they would not be confined to reserves but allowed to stay on their traditional lands and continue their traditional lifestyle, including the rights to hunt, trap and fish.¹⁰

The indigenous communities took the promises made by the government representatives at face value. It was reported that the First Nations saw the treaty as “an agreement to share the land”¹¹ while being able to [continue their traditional lifestyle](#).¹² The Government saw the treaty as an [extinguishment of aboriginal title](#) and a cession of land, opening the door for the industrial development of Northern Alberta. These concepts of land and resources, especially in terms of private or state-owned property, were foreign to most indigenous communities for many decades. The Aboriginal Peoples concerned were therefore unable to fully comprehend the consequences of a treaty of such magnitude and the rights and powers it granted to the Canadian government.¹³

This is also apparent in the initial refusal of the Canadian government to ratify the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP). This Declaration was adopted by the UN General Assembly in 2007, yet only ratified by Canada in 2010.¹⁴ Canada has still not ratified the International Labour Organisation (ILO Convention) [Convention No. 169](#) that entered into force in 1991 and that specifically guarantees rights to indigenous and tribal peoples. Both of these will be looked at again below. Even though the Constitution Act, 1982 recognised the existing Aboriginal and Treaty rights of Canada’s First Nations,¹⁵ the relationship between the Canadian government and the Aboriginal People has since been a difficult one.

Land rights and indigenous peoples’ relation with the environment

It has been widely recognised that indigenous peoples have a profound connection with their ancestral lands, which forms part of their spiritual and cultural identity, indigenous cultures and lifestyles therefore suffer without access to their traditional grounds.¹⁶ Indigenous peoples in the Treaty 8 region have been living entirely off their lands, through hunting and gathering. They also have dedicated sacred sites, both on land and in the water, where they believe their ancestors to be buried. Losing not only the lands they have lived on since time immemorial to settlers and, more recently, to industrial development, but also losing any legal title to these lands, comes close to cultural genocide, as has been argued as such by the Indigenous Environmental Network.¹⁷ Only since the middle of the 20th century have governments begun to acknowledge the existence of indigenous land rights and to develop laws and policies to protect these rights.

The two most notable bodies of international laws with regards to indigenous peoples are the ILO Convention (adopted in 1989) and the UNDRIP (adopted in 2007). The ILO Convention is still the only legally binding instrument dealing with indigenous peoples’ rights.¹⁸ Even though it has been ratified by

just 22 countries, parts of it, especially the central provisions, are regarded as having achieved the status of customary international law and therefore apply even when the country in question has not ratified the convention.¹⁹ Something similar applies for UNDRIP: even though the convention is non-binding, it has become one of the most discussed texts by the United Nations, and this together with it having been ratified by a large number of countries, means that several sections of UNDRIP are now also considered customary international law.²⁰ This implies that even though Canada has not ratified the ILO Convention and only endorsed UNDRIP in 2010, both bodies of laws can be considered applicable.²¹

Respect for and protection of the rights of indigenous peoples, especially with regards to their cultural, spiritual and land rights, are at the core of the ILO Convention and UNDRIP. While the ILO Convention focuses mostly on the right of indigenous peoples to own, use and protect their land and resources, UNDRIP also mentions the “right to maintain and strengthen their distinctive spiritual relationship with their [...] lands, territories, waters and coastal seas and other resources”.²² The strong connection between indigenous culture and access to their lands has also been noted in 1997 by the Human Rights Committee (HRC), as its [General Comment No. 23](#) states that “culture manifests itself in many forms, including a particular way of life associated with the use of land resources, especially in the case of indigenous peoples”. Furthermore, the HRC has [repeatedly emphasised](#) that indigenous peoples’ rights to their ancestral lands are inherent, and has subsumed them under Article 1 (2) of the International Covenant on Civil and Political Rights that states that “[a]ll peoples may [...] freely dispose of their natural wealth and resources [...]. In no case may a people be deprived of its own means of subsistence”.

The Committee on the Elimination of Racial Discrimination (CERD) appeals to states to “recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources”.²³ It also addresses states more directly through Concluding Observations in which it urges the states to respect the rights of indigenous peoples to their ancestral territories.²⁴

Legal framework

Following on from the international legal protection of indigenous peoples’ rights, it is necessary to explore how, if at all, the international law has been adopted by the Canadian federal government.

The Canadian Constitution Act, 1982 explicitly deals with First Nations’ rights in section 35. These rights are [considered to be](#) some of the most powerful rights in Canada with regards to the environment. Section 35 affirms and recognises existing Aboriginal rights, but it

[does not create new rights](#). However, what is considered an aboriginal right still needs to be defined both through debates and Supreme Court cases. Even though the rights of Canada's First Nations are still being defined and interpreted, the federal government [cannot overrule them](#). Section 35 means that the federal and state governments are obliged by law to act in a way that respects Canada's aboriginal population, as well as their Aboriginal title that inheres both present and future generations.²⁵ The Canadian Supreme Court has also requested that "pre-existing aboriginal sovereignty" be reconciled with "assumed Crown sovereignty".²⁶

In 2012, the conservative government under Stephen Harper introduced two [omnibus budget bills](#), C-38 and C-45, which drew criticism from indigenous communities within Canada as they weakened or eviscerated environmental protection measures and further included amendments to the Indian Act that override parts of section 35 of the Constitution Act 1982.

In the process of interpreting section 35 of the Canadian Constitution, several Supreme Court rulings have become landmark cases. One of these is *Calder v. Attorney-General of British Columbia*²⁷ which is considered to have paved the way for the modern aboriginal title doctrine.²⁸ In its ruling, the Supreme Court announced that "at the time of colonization the indigenous peoples of British Columbia held aboriginal rights to their lands"²⁹ independent of the Crown's recognition of these rights. The Court also stated that these rights did not cease after the British Crown claimed sovereignty, meaning that even today aboriginal title might still exist over lands not ceded through treaties. In Canada, aboriginal title rights are therefore protected by the Constitution.³⁰

The Supreme Court's decision in *R v. Sparrow*³¹ established a list of criteria, '[the Sparrow test](#)', to determine whether an aboriginal right has been extinguished or is still existing and whether a state or federal government may infringe upon it. Furthermore, *Haida Nation v. British Columbia*³² reinforced the need for consultation with Aboriginal communities and the necessity to accommodate their interests as a moral duty of the Crown.³³ A clear definition of 'consultation' and 'accommodation' is [still being developed](#) to date, however. The case of the *Haida Nation* also showed that indigenous communities still have to prove that they hold title to their ancestral lands.

In 2014 a Canadian court for the first time legally recognised the Aboriginal land title based on the traditional use and control of ancestral lands by indigenous peoples.³⁴ The Supreme Court also stated that the 'terra nullius' doctrine "never applied in Canada", as First Nations had rights to control and use their lands well before Europeans arrived.³⁵

Environmental movements

Indigenous communities, especially in the more remote parts of Alberta, maintain close ties to the environment. They not only subsist on their lands, but also have a spiritual connection with it. It is in this context of subsistence lifestyles and sacred grounds unlawfully being taken away, destroyed and exploited by governments and oil companies, together with the environmental impacts of the mining including oil spills, that a strong environmental movement was born. Already between 2011 and 2013, there have been more than 10 oil spills in Alberta alone, with the biggest one spilling roughly 4.5 million litres of oil.³⁶

An equally large threat to the health of the environment and First Nations comes from the tailing ponds in which toxic waste water is being discharged. These ponds, the size of lakes, are often very close to important and sacred waterways and several studies have found that their pollutants both [seep into the ground water](#) and [spill over into rivers](#) and lakes, spreading the pollution.

According to a 2011 report by the Pembina Institute, the Canadian and Albertan governments declared that there are strict regulations in place to address the impacts of the tar sands exploitation. The [report finds](#), however, that these regulations are either "absent, ineffective, or too weak" to properly manage the impacts oil sands production is having on the environment. In response to Harper's bill C-45 and the fact that their rights are not being upheld, various First Nations are now [suing the government](#) over the changes to the environmental assessment or water protection laws. The Lubicon Cree First Nation, on the other hand, is suing the government seeking to invalidate more than a thousand oil and gas extraction permits and claiming several hundred million dollars in compensation for the exploitation of natural resources like oil, gas and minerals officially belonging to the Lubicon Cree.³⁷

One of the boldest suites currently under way is the treaty rights claim by the Beaver Lake Cree Nation (BLCN) against the government of Alberta and the federal government of Canada. This [First Nation is suing](#) over the collective negative impacts of the oil sands exploitation and expansion in their territory, which may represent a breach of Treaty 6, signed between the BLCN and the Canadian government in 1876. Most of the Beaver Lake Cree's ancestral lands have been leased to oil companies, according to Beaver Lake spokesperson [Crystal Lameman](#), without proper consultation of the First Nation. There have been several oil spills in the BLCN's ancient territories, including the [huge 'Cold Lake' spill](#) which affected part of a sacred lake where the Nation believes their ancestors to be buried. According to the Pembina Institute's report by [Fischer and Lemphers](#), the land use planning process for the Alberta oil sands region

was still being developed in 2011, which means that at the time, there were no limits to water withdrawal from the Athabasca river, no protection for local biodiversity and no management plans for the toxic tailing ponds.

The territory of the BLCN is impacted by the oil sands industry in various ways. For example, the woodland caribou on which some indigenous communities rely is expected to be locally extinct in about 40 years. A study by the Alberta Cancer Board from 2009 indicated that cancer rates near Fort Chipewyan were much higher than would be expected, which [might be linked](#) to both the water and air pollution originating in the oil sands mining. These impacts pose a serious threat to both the cultural and the environmental health of the Beaver Lake Cree Nation. In 2008 the BLCN sued the Canadian and Albertan governments and their struggle has been going on until today. They argue that more than 19,000 individual industrial, military and road projects currently going on in their territory are infringing upon their aboriginal and Treaty 6 rights, especially the right to [“continue \[their\] traditional way of life”](#), including rights to fish, hunt and forage.

Over the years, both their determination to win the case and the support from organisations and individuals has grown. They received help and backing both from small grassroots movements and large international movements alike. This (inter)national recognition is especially important, seeing as some Canadian lobbyists are trying to sell Canada's oil as 'ethical' and 'Fairtrade' oil, compared to oil from the Middle East, while the police and military are at the same time working very closely with the oil companies to smother protests by what they consider to be 'savage warriors' and 'terrorists'.³⁸

Summary and future prospects

As I have shown, there are various legal texts in effect that support the rights of indigenous peoples. These are, however, hardly implemented in Canada, leading to a rapid proliferation of pipelines, roads and mining sites as well as the pollution of huge amounts of fresh water which in turn triggers protests by affected First Nations, Aboriginal peoples and their allies.

This disrespect and violation of Canada's indigenous peoples' rights has also been criticised by various international bodies, including the UN Special Rapporteur James Anaya, and the Human Rights Commission.³⁹ They further condemned the apparent lack of implementation of decisions by the Canadian Supreme Court and other Canadian Courts ruling in favor of First Nations and emphasised the need to implement UNDRIP in Canadian domestic law.⁴⁰ In recent years oil companies have been able to build on the support by Canada's conservative government and due to the constantly rising demand for oil, the price of which has been sufficiently high to make tar

sand mining economically viable and to some socially justifiable. However, with a lower price for oil, companies are losing money and tar sands extraction [becomes uneconomic](#). This makes the oil companies, as well as supporting governments vulnerable and in turn strengthens the protests and movement against the oil sands.

With Justin Trudeau as the new Canadian prime minister and an agenda of a renewed 'nation-to-nation' relationship with Canada's indigenous peoples, time will tell whether Trudeau can keep his [electoral promises](#) to respect and honor Aboriginal title and Treaty rights, as well as implement UNDRIP.

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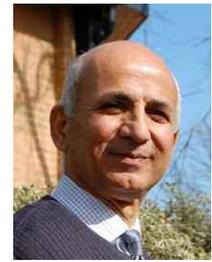
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International Environmental Law

The Radioactivity of the Hydraulic Fracturing (Fracking) of Shale Gas (Part I) – An International, European and UK Legal Perspective



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At a glance

- Release of Naturally Occurring Radioactive Materials (NORM) to the environment from Hydraulic Fracturing (Fracking) of Shale gas;
- The international legal framework relating to the release of radionuclides of NORM to the environment from Fracking operations, conventional oil & gas operations, and other non-nuclear industries;
- The EU legal instruments addressing radioactive waste streams (solid, liquid and gaseous), containing NORM radionuclides, generated by the Fracking of shale gas;
- The UK legal and regulatory frameworks governing NORM waste generated by Fracking operations and by other non-nuclear industries.

This article reflects the relevant policies and legal instruments as of 1 January 2016.

1. Introduction

This paper constitutes the first of a two-part series on the Radioactivity of the Hydraulic Fracturing (Fracking) of Shale Gas.

This paper (Part I) examines the international and European Union (EU) legal instruments related to Naturally Occurring Radioactive Materials (NORM) which is generated by fracking of shale gas, conventional oil and gas operations, and a number of other non-nuclear industries. In this context, the paper also addresses the UK regulatory framework governing NORM waste.

In Part II, the author addresses the radioactivity associated with the fracking of shale gas – i.e. release of radionuclides of NORM into the air, water and soil (atmospheric, aquatic, and terrestrial media), as the result of fracking operations – with the aim of informing policy formulation and the development of legislative and regulatory frameworks at international,

European, and national (domestic) levels.

The term Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) is also used in the published literature in this area, in particular in the US, to mean enhancement in concentration of NORM radionuclides, or increased risk of exposure to radiation, as the result of human activity. Both terms are used throughout this paper.

Shale formations (rocks), which are considered a major source of unconventional oil and gas, also contain NORM¹, and often at relatively higher concentrations than conventional oil and gas formations². As discussed in detail in Part II, a number of NORM radionuclides, including actinium (Ac), bismuth (Bi), lead (Pb), polonium (Po), radium (Ra), thorium (Th) and uranium (U) isotopes, have been identified as contributing to the total radioactivity of hydraulic fracturing operations and waste streams. The radioactivity associated with hydraulic fracturing therefore must be subject to regulatory control.

A number of international and regional organisations have promulgated recommendations, guidelines and standards in relation to the regulatory control of radioactive substances and radioactive waste from nuclear and non-nuclear activities. These have underpinned policy formulation and legislative development at international, European and national (domestic) levels, as discussed below.

The United Nations Scientific Committee on the Effects of Atomic Radiation, [UNSCEAR](#), was established by the United Nations General Assembly in 1955 and is mandated to assess and report levels and effects of exposure to ionising radiation. The international community has been using UNSCEAR reports as principal sources of information, as scientific basis for evaluating radiation risk, and for instituting protective measures.

[International Commission for Radiological Protection](#) (ICRP) was founded in 1928 to advance the science of radiological protection by providing recommendations and guidance on all aspects of protection against ionising radiation. It is an independent, international organisation with volunteer members who are leading scientists and policy makers in the field of radiological protection from thirty countries across the globe.

The International System of Radiological Protection developed by ICRP has been based on the understanding of the science of radiation exposures and effects, and has been informed by the scientific findings of UNSCAER.

The ICRP recommended International System of Radiological Protection is based, primarily, on the three principles noted below:

Principle of Justification: No practice involving exposure to radiation should be adopted unless it produces sufficient benefit to the exposed individuals or to society to offset the radiation detriment it causes;

Principle of Optimisation: Any radiation exposure resulting from the practice must be reduced to the lowest level possible (or as low as reasonably achievable (“ALARA”)), having regard to the cost of such a reduction in dose;

Principle of Dose Limitation: Setting upper limits on the radiation dose that any member of the public should receive from all man-made exposures (other than medical exposures).

ICRP recommendations, though not mandatory, have formed the basis of policy and regulation of risks associated with exposure to ionising radiation from both natural and artificial (anthropogenic) radioactive substances – at international, EU, and national levels.

The IAEA was established by the United Nations in 1957 to promote safe, secure and peaceful uses of nuclear technology. In the context of the international system of radiological protection, the IAEA plays a key role in the development and promulgation of international standards, as mandated under art.III.6 of [its Statute](#).

The latest IAEA “International Basic Safety Standards” (IAEA BSS) was released in 2014. The text of this new edition takes into account the findings of UNSCEAR and also the recommendations of the ICRP³. [According to the IAEA](#), the principal users of the Safety Standards in the IAEA Member States are the regulatory bodies and other relevant national authorities. The 2014 International Basic Safety standards were jointly sponsored by a number of international organisations,

including the European Commission, IAEA, UN Environment Programme (“UNEP”), World Health Organization (WHO), and Nuclear Energy Agency of the Organisation for Co-operation and Development (OECD-NEA).

The [Nuclear Energy Agency](#) (NEA) of OECD, established in 1957, is an intergovernmental agency that facilitates co-operation among countries with advanced nuclear technology infrastructures to seek excellence in nuclear safety, technology, science, environment, and law. The NEA’s current membership consists of 31 countries in Europe, North America and the Asia-Pacific region, which together account for 86% of the world’s installed nuclear capacity.

NEA areas of work include Nuclear safety and regulation; Nuclear energy development; Radioactive waste management; Radiological protection and public health; and Nuclear law and liability. It has issued publications on specific topics relating to radiation protection and safety. The Committee on Radiation and Public Health of the OECD-NEA works closely with the ICRP, IAEA, and the European Commission in assessing the implications of ‘recommendations’ and ‘standards’ on policy and legislative development relevant to radiological protection.

The European Commission has been developing binding legal instruments in the context of radiation protection, based on ICRP recommendations and the IAEA international Basic Safety Standards, as discussed later in this work.

It is noteworthy, that the International Energy Agency has [developed recommendations](#) for the safe development of unconventional gas. These so called ‘Golden Rules’ call for, *inter alia*, adequate project planning, underground risk characterisation, transparency on operations and monitoring of associated impacts, and robust and appropriate regulatory regimes.

2. International Legal Instruments

In contrast to the development of a comprehensive legal framework governing anthropogenic radioactivity originating, for the most part, from nuclear-fuel-cycle activities, there are a limited number of international and multilateral legal instruments the scope of which encompass NORM or TENORM. These are discussed in chronological order below.

Furthermore, the emergence of “Soft Law” has also contributed to the general corpus of international law, in this context. As stated by Sands, “although not legally binding, they may contribute to the development of customary law or lead to adoption of binding obligation by treaty or an act of an international organisation.”⁴

The London Convention, 1972 and the 1996 Protocol

Dumping of high-level radioactive waste was banned in 1975 following the coming into force of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 ([The London Convention](#)). Subsequently in 1996, the dumping of all radioactive waste was prohibited. The scope of the Convention is, however, limited to dumping at sea, excluding discharges from land-based sources and dumping into local waters.

Moreover, according to an IAEA guidance document in relation to the Convention, materials containing natural radionuclides would not be subject to radiological control, and, thus, would be exempted, under the London Convention 1972, from consideration of their radioactive properties for the purposes of assessing their suitability for disposal at sea.⁵

However, the 1996 Protocol, as set out in art.3, incorporates the 'precautionary approach' as a general obligation, requiring that:

"appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects."

Article 3 also states that "the polluter should, in principle, bear the cost of [any] pollution".

The 1989 Basel Convention

The [Basel Convention](#) on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989. Radioactive waste is, however, excluded from the scope of the Convention under art.1(3):

"Wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials, are excluded from the scope of this Convention."

However, there are ambiguities as to whether the provisions of the Convention apply to NORM waste. Pursuant to a request for clarification by the Secretariat of the Basel Convention on the notion of "international control systems", the IAEA had noted that "some radioactive wastes are not subject to relevant IAEA or IMO control systems due to their low level of activity."⁶

The 1992 UN Agenda 21

The safe and environmentally sound management of radioactive wastes is the subject matter of Ch.22 of the [UN Agenda 21](#), adopted by the Contracting Parties at the UN Conference on Environment and Development

– the Earth Summit – in Rio de Janeiro in 1992. The objective of Chapter 22, essentially a 'Soft Law' instrument, is to ensure that handling, transport, storage and disposal of radioactive waste is effectively carried out to minimise radiological and safety risks to people and the natural environment. Under para.22(5)(b), Contracting Parties were obliged to encourage the London Dumping Convention Secretariat to ban disposal of low-level radioactive wastes at sea, "taking into account the precautionary approach". However, no reference is made to NORM or TENROM.

1992 OSPAR Convention

The [OSPAR Convention](#) for the Protection of the Marine Environment of the North East Atlantic entered into force in 1998, with the aim of protecting the marine environment of the 15 Contracting Parties that have either a North East Atlantic coast, or discharge into the OSPAR maritime area via their rivers.

The Convention consolidated the 1972 Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircrafts and the 1974 Paris Convention for the Prevention of the Marine Pollution from Land-based Sources.

The Convention is regarded as one the most progressive multilateral legal instruments adopted to date. It is based on, and guided by, inter alia, the "Precautionary Principle", the "Polluter Pays Principle", and the principle of Sustainable Development through the application of the "Ecosystem Approach".⁷

In its latest report on discharges of radionuclides from the non-nuclear sectors, the Commission specifically identifies discharges of radionuclides Ra-226, Ra-228, and Pb-210 from the offshore oil and gas industry.⁸

The "OSPAR Strategy with Regard to Radioactive Substances", adopted by the OSPAR Commission in 1998, makes specific references to NORM and the effective regulatory control of NORM. The overall objective of the Strategy is:

"to prevent pollution of the OSPAR maritime area from ionising radiation through progressive and substantial reductions of discharges, emissions and losses of radioactive substances, with the ultimate aim of concentrations in the environment near background values for naturally occurring radioactive substances and close to zero for artificial radioactive substances."

The Strategy also notes specifically that the OSPAR Commission will assess the impacts to man and biota of both environmental concentrations of radionuclides associated with the nuclear industry in its maritime area, and discharges of radionuclides associated with the non-nuclear sectors, i.e, NORM.

The Strategy also notes that “Radioactive substances” mean naturally occurring and artificial radionuclides.⁹

The OSPAR Commission aims to achieve the said objective by the year 2020, ensuring that discharges, emissions and losses of radioactive substances – natural and anthropogenic – are reduced to levels where the additional concentrations in the marine environment above historic levels, resulting from such discharges, emissions and losses, are close to zero.

The IAEA Joint Convention 1997

The [Joint Convention](#) on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management was concluded under the auspices of the IAEA, and entered into force in 2001. NORM waste is excluded from the scope of the Convention, as art.3(2) stipulates that “this Convention shall not apply to waste that contains only naturally occurring radioactive materials and that does not originate from the nuclear fuel cycle.”

Other Multilateral Agreements

The 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region ([Noumea Convention](#)) which entered into force in 1991 excludes waste arising from “potential sources of naturally occurring radionuclides for commercial purposes”; art.2(d).

The 1991 [Bamako Convention](#) (Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa) makes reference to radioactive waste. Annex I, “Categories of Wastes which are Hazardous Waste”, includes “[a]ll wastes containing or contaminated by radionuclides, the concentration or properties of which result from human activity”. It is, however, not clear if NORM waste is included in that definition.

The 1991 [Lome IV Convention](#) (replaced by the 2000 Cotonou Convention), an international aid and trade agreement between the ACP (African, Caribbean and Pacific Countries) Group and the EU, is, inter alia, concerned with the transboundary movement of hazardous, nuclear and other radioactive wastes. Under Annex VIII, it refers to concentration limits of “100 Bq/g-1 and 500 Bq/g-1 for solid natural radioactive substances”.

3. EU Legal Framework

In the EU, ‘high-volume hydraulic fracturing of shale gas extraction’ is regulated under a suite of EU legal instruments, in particular the Hydrocarbons Licensing Directive, the Environmental Impact Assessment (EIA) Directive, the Mining Waste Directive, the Water Framework Directive, the Ground Water Daughter Directive, and Basic Safety Standards Directive.

According to a study commissioned by the European Commission’s Directorate General for Environment¹⁰, 19 environmental Directives are relevant to the fracking of shale gas, in addition to a number of other EU legislation in other policy areas, e.g. Health & Safety, Mineral Extraction, and Radiation Protection.

However, most of the EU legislation currently in force was not specifically adopted for the purpose of regulating fracking operations. This is particularly the case with EU environmental laws which, generally, predate the emergence of shale gas as a potentially viable source of energy in the EU region.

Regulation of radioactive substances, including NORM, in the 28 EU Member States is underpinned by the 1957 Euratom Treaty (Treaty establishing the European Atomic Energy Community) and subsequent EU Directives. Articles 30-33 concern the laying down of Basic Safety Standards against the dangers arising from ionising radiations.

Moreover, art.37 of the Euratom Treaty requires Member States to provide the European Commission with general data relating to any plan for the disposal of radioactive waste. The Commission is required to deliver its “Opinion” within 6 months. Article 37 aims to prevent trans-boundary impact by ensuring that release of radioactive waste by one Member State does not result in radioactive contamination of the environment of another Member State. European Commission ‘[Recommendation 2010/635/Euratom](#)’ lists the types of operations for which a submission is required, and includes, under art.1(11), “the industrial processing of naturally occurring radioactive materials subject to a discharge authorisation”.

The Euratom Basic Safety Standards Directive 1996 (Euratom BSS 1996) addresses NORM waste. The Directive incorporates the ICRP Recommendations and the IAEA Basic Safety Standards on ‘Justification’, ‘Optimisation’ and ‘Dose Limitation’.¹¹ Title VII (arts.40-43) addresses increase in exposure due to natural radiation sources. Article 40(2)(b), in particular, is concerned with work activities involving operations with, and storage of, materials not usually regarded as radioactive, but which contain naturally occurring radionuclides, causing a significant increase in exposure to ionising radiation.

The revised Euratom Basic Safety Standards Directive 2013, adopted at the EU level in February 2013, is more specific in addressing operations involving NORM. It contains new provisions related to the regulation of NORM, with a view to applying minimum standards across the EU. Under art.2(2)(C)(ii), the scope of the Directive encompasses “the processing of materials with naturally-occurring radionuclides”. Article 23 of the Directive concerns “Regulatory control”, and stipulates that “Member States shall

ensure the identification of classes or types of practice involving naturally-occurring radioactive material". Annex VI contains a "List of industrial sectors involving naturally-occurring radioactive material as referred to in Article 23", including "Oil and gas production".¹²

Under the revised Directive 2013, the definition of what constitutes "Practice" has been changed. "Practice" now includes all human activity that increases exposure to radiation. NORM is therefore now classified as a "Practice", and no longer as a "Work Activity". This will apply to oil and gas operations, including fracking operations which give rise to Technological Enhancement of NORM (TENORM) concentrations and their transfer to the surface as constituents of waste streams.

The implication for the fracking industry is that the relevant regulators in the EU Member States will need to ensure that, following transposition of the Directive in February 2018, fracking is subject to "Justification", as is the case with the nuclear industry. Operators involved in the fracking of Shale gas in the EU region will therefore need to secure a Justification Authorisation, in addition to [other regulatory requirements](#).¹³

The Mining Waste Directive 2006 is also applicable to fracking of shale gas operations, as contaminated flow-back fluids and other waste streams reaching the surface, or remaining underground in the well, fall under the definition of waste from extractive industries. Moreover, the Directive covers the management of waste from the extractive industries which may be radioactive, but excluding those aspects which are specific to radioactivity.¹⁴

The Euratom Drinking Water Directive 2013 provides a framework for controlling radioactivity in drinking water. Both natural and artificial radionuclides fall under the scope of the Directive. It is therefore relevant to fracking of shale gas, where radioactive contamination of ground water or surface waters might occur due to leakage, spills, accidents, etc.¹⁵

The Directive lays down values for a number of radionuclides including radon gas, U-238, Ra-226, Ra-228, Pb-210, and Po-210, which may be present in flow-back fluid and other waste streams associated with fracking operations, as discussed in Part II of this two-part series.¹⁶ Under art.4, it creates a number of obligations, inter alia, that Member States institute appropriate monitoring programmes for water intended for human consumption, and, where non-compliance poses a risk to human health, remedial action is taken to protect human health from radiation. This could have implications for the regulators in the 28 EU Member States in relation to regulatory control of fracking of shale gas.

The Spent Fuel and Radioactive Waste Directive 2011 creates a number of legal obligations for the Member States, including the requirement for the Member State to formulate a national policy; and that relevant information on radioactive waste and spent fuel be made available to the public.

Radioactive Waste is defined under art.3(7) of the Directive as:

"radioactive material in gaseous, liquid or solid form for which no further use is foreseen or considered by the Member State . . . , and which is regulated as radioactive waste by a competent regulatory authority under the legislative and regulatory framework of the Member State."

It is, however, unclear whether or not the Directive applies to NORM and, in particular, to radioactive waste streams associated with fracking of shale gas.¹⁷

The European Commission, in collaboration with the Member States, is working towards the development of legislation specific to the fracking of shale gas, to replace the current general suite of legal instruments laid down by European Directives. In this context, 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 is of particular interest. The Recommendation lays down minimum principles to be applied, as a common basis for the exploration or production of hydrocarbons involving high-volume hydraulic fracturing, with a view to implementation by Member States within six months.¹⁸

4. UK Legal and Regulatory Frameworks

The current UK Government policy is, where possible, to promote and facilitate the development of the Shale gas industry.^{19, 20} To meet its policy objectives, and to encourage investment in the sector, the Government has, to date, instituted a number of institutional, fiscal, and legislative measures: The Office of Unconventional Gas and Oil was (OUGO) was established, in December 2012, to collaborate with the industry and regulators in developing a streamlined regulatory regime; the Chancellor of the Exchequer has announced a number of tax incentives; and the Infrastructure Act 2015 was recently adopted by Parliament, which, as provided for by ss.43-48, permits drilling for shale gas at depths greater than 300m without the prior consent of the landowner.

In the UK, the fracking of shale gas is classified as a NORM industrial activity at exploration, development, and exploitation stages, but with the exclusion of the drilling stage where no gas is generated.²¹

The UK NORM Waste Strategy, covering radioactive waste in solid, liquid and gaseous forms from non-nuclear industries was [published in July 2014](#). The Strategy sets out how UK NORM waste is to be managed in the UK. It specifically addresses radioactivity associated with fracking of shale gas operations. The Strategy provides a description of the current regulatory and legislative frameworks, the role of regulators, and the need for effective implementations of the provisions of the Euratom Basic Safety Standards.²²

Further [guidance and clarification](#) on the regulation of radioactive substances from non-nuclear operations, and onshore oil and gas exploratory operations has been promulgated by the [Environment Agency](#).

The regulation of fracking of Shale gas – exploration, testing, extraction (production), and the eventual decommissioning phase ('Well Abandonment') – is overseen by a [multitude of Government Departments and Agencies](#), the most important of which are discussed below.

It is worth noting, however, that fracking is currently at the exploratory stage in the UK, and the government is currently working towards reducing the complexity of the regulatory regime, in addition to increasing its transparency.

4.1 The Oil and Gas Authority (OGA)

The OGA was established as an "Executive Agency" of the Department of Energy and Climate Change (DECC) in April 2015, and is responsible for administering the "Petroleum Exploration and Development Licence" system. The OGA Licensing regime encompasses both "conventional" and "unconventional" oil and gas exploitation in the UK. Fracking of shale gas is classified as "unconventional", as the geological formations (shale rocks) and extraction techniques – High Volume Hydraulic Fracturing, using vertical and horizontal drilling – are distinct from production of "conventional" gas which is being extracted globally. The OGA conducts its regulatory functions under powers delegated by Parliament to the Secretary of State for Energy and Climate Change in the Petroleum Act 1998. The licence does not grant any right to drill, but allows exploratory work, i.e. seismic investigations, to begin.

As regards fracking, DECC requires an "Environmental Risk Assessment" (ERA) to be carried out by the operator in order to provide an overview of the environmental risks over the full cycle of the proposed fracking operations. The requirement for an ERA at an early stage in the regulatory process also helps [inform subsequent assessments](#) required by other regulators, e.g. an 'Environmental Impact Assessment' (EIA).

Operators are also required to obtain consent to drill

and consent to fracture from DECC, once all other permissions and permits from other regulatory bodies have been secured.²³

It is worth noting that s.50 of the Infrastructure Act 2015 has inserted a number of safeguard provisions into the Petroleum Act 1998 (s.4), in relation to onshore hydraulic fracturing.

4.2 Mineral Planning Authorities

Planning permission is required for [each stage of shale gas development](#) – exploration, testing, and production (extraction). The Mineral Planning Authority (usually the Local Council or the County Council) administers the granting of the necessary permissions in accordance with, inter alia, the National Planning Policy Framework, the Town and Country Planning Act 1990 (England) and the Town and Country Planning (Scotland) Act 1997.

Section 57(1) of the 1990 Act (England) stipulates that "planning permission is required for the carrying out of any development of land". The drilling of onshore boreholes and hydraulic fracturing of strata constitutes "development" [as defined under the Act](#).

The Mineral Planning Authorities also administer the requirements of the Town and Country Planning Act 1999 (Environmental Impact Assessment) Regulations 2011, under which an EIA may be required. The 2011 Regulations apply to two separate categories of development projects: "Schedule 1 development", for which an EIA is mandatory; and "Schedule 2 development", for which EIA is required if the particular project is likely to have significant impact on the environment due to its nature, size, or location.

Planning permission is a prerequisite to obtaining consents for drilling and subsequent operations granted by the DECC.²⁴

4.3 Health and Safety (H&S) Executive

Relevant permissions are required from H & S Executive in relation to well design and construction, and well integrity during operations. Also, all drilling operations are subject to notification to the H&S Executive.

The design of wells – both onshore and offshore – is regulated by the Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996 (DCR), and include well integrity provisions which apply throughout the life of wells.

H&S Executive also enforces the provisions of the Ionising Radiation Regulations 1999 (IRR 1999), to protect the workers and members of the public from harmful effects of ionising radiation. It ensures that the exposure to the ionising radiation, including radiation associated with NORM, are kept as [low as](#)

[reasonably practicable](#). The IRR 1999 apply to radioactive waste generated as the result of fracking of shale gas operations.

4.4 The Environment Agency

The Environment Agency (England & Wales) is [responsible for regulating environmental risks](#) associated with the exploration and extraction of both conventional and unconventional oil and gas, including fracking of shale gas, under Environmental Permitting (England and Wales) Regulations 2010, the Environmental Permitting (England and Wales) (Amendment) Regulations 2011, and the Environmental Permitting (England and Wales) (Amendment) Regulations 2013.

These Regulations incorporate the Radioactive Substances Act 1993 and [also a raft of European legislation](#) relating to the fracking of shale gas, in particular the Mining Waste Directive, the Water Framework Directive, and the Basic Safety Standards Directive (EU BSS).

Environmental regulators require a number of environmental permits from the operators in relation to, inter alia, groundwater activity, mining waste activity, and radioactive substances activity.²⁵ An “environmental permit” is defined as a permit granted under reg.13(1) of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2010/675).

Under Sch.23 of Environmental Permitting Regulations 2010 (as amended), an [environmental permit is required](#) for the release, storage, treatment and disposal of radioactive waste streams – liquid, solid and gaseous – containing enhanced levels of NORM (TENORM) radionuclides.

Previously, NORM was subject to regulatory control under the Radioactive Substances Act 1993 (RSA 1993), and its predecessor the Radioactive Substances Act 1960, whenever the concentrations of NORM radionuclides exceeded specific values stipulated in the Schedules to the said Acts. The RSA 1993 sets [out the list](#) of NORM industrial activities falling under the scope of the Act, including “Production of oil and gas” and “Removal and management of radioactive scales and precipitates from equipment associated with industrial activity”. The relevant provisions of the RSA 1993 have now been incorporated into the Environmental Permitting Regulations 2010 and the 2013 amendments, now enforced by the Environment Agency in England and Wales. The 1993 Act is, however, applicable to the licences issued prior to the adoption of EPR 2010.

As noted previously, shale formations (rocks) contain NORM at [relatively higher concentrations](#) than conventional oil and gas formations.

In the UK, as mentioned previously, the fracking of shale gas is classified as a NORM industrial activity at exploration, development, and exploitation stages, with the exclusion of the drilling stage where no gas is generated. Operators are therefore required to obtain an environmental permit for the temporary storage and subsequent treatment/disposal of wastewaters (“Flow-back” fluid and “Produced” water), in addition to scales and sediments that may deposit or accumulate in pipes and process vessels, as they are likely to contain sufficient levels of NORM (or TENORM, the term commonly used in the US) to be [classified as radioactive waste](#).

Cuadrilla Resources, which has led the exploration for shale gas in the UK since 2010, has been [subject to this regulatory regime](#).

4.5 Other Regulatory and Consenting Bodies

Consent may also be required from a number of other bodies, including (i) Natural England, where fracking operations may have an adverse impact on European Protected Sites and Protected Species; (ii) Hazardous Substances Authorities, where hazardous substances may be involved; and (iii) the British Geological Survey, at the commencement and completion of drilling.

Finally, as of February 2018, NORM operations, including fracking of shale gas which generates radioactive waste, may be subject to “Justification” authorisation [granted by DECC](#).

As noted in the preceding sections, the revised Euratom BSS Directive 2013 will need to be transposed into the UK legal system by February 2018. The revised Directive classifies NORM operations as a “practice” rather than a “work activity”. Consequently, it is most likely that NORM operations will be subject to the provisions of the UK Justification of Practices Involving Ionising Radiation Regulations 2004 (SI 2004/1769). The shale gas industry will therefore be subject to the regulatory requirement of securing a “Justification” authorisation prior to meeting the other regulatory requirements noted.²⁶

5. Concluding Remarks

Historically, the international community has made an arbitrary distinction between anthropogenic (man-made) radionuclides from the nuclear industry, and NORM radionuclides released from non-nuclear industries, e.g. production of conventional and unconventional oil and gas.

This dichotomy has created a two-tier approach to protection against ionising radiation from anthropogenic sources and NORM radionuclides, notwithstanding that their radiological and ecological impacts are exactly the same.

Consequently, the international community has developed a comprehensive legal framework governing every aspect of the nuclear industry – mining, enrichment, fuel fabrication, operation, waste disposal, safety, liability, nuclear non-proliferation, nuclear security, etc.

Conversely, the international community is yet to implement the requisite international legal framework to address the radiological, and radio-ecological impact of NORM industries, notwithstanding the fact that NORM (or TENORM) is generated globally from oil and gas operations, and from a multitude of other non-nuclear industries.

It is, however, reassuring to note that a number of international organisations, e.g. ICRP, IAEA, OECD-NEA and the EU, are now seeking to address this dichotomy, and are developing radiation protection principles, safety and environmental standards, together with relevant policy documents. This should, in due course, inform the development of international law in relation to the protection of man and other biota from adverse impact of NORM radiation.

The OSPAR Convention 1992, and, the “OSPAR Strategy with regard to Radioactive Substances” are based on tenets of ecological protection and Precautionary Principle. The Convention and the Radioactive Substances Strategy could serve as a template for the development of multi-lateral legal instruments for effective regulation of NORM (or TENORM) from non-nuclear industries, eg, fracking of shale gas.

The EU has developed a comprehensive legal framework, adopted by the 28 Member States, to protect the public, the environment and ecological systems, also preventing transboundary impact of industrial activities. However, it [has been argued](#) that the legal framework, with regard to fracking operations, is somewhat diffuse, extending over a multitude of policy areas and Directives, and requiring a number of public bodies to undertake the regulatory control functions.

The EU environmental legislation predates recent development in high-volume hydraulic fracturing in Europe. Consequently, certain environmental aspects associated with fracking, at exploration and production stages, are not fully addressed under current corpus of EU law, e.g. “strategic planning, underground risk assessment, well integrity, baseline and operational monitoring, capturing methane emissions and disclosure of information on chemicals used on a well by well basis”.²⁷

Nevertheless, the revised BSS Directive 2013, has incorporated a number of amendments in relation to NORM, therefore creating a more robust legal framework for the regulatory control of radioactive

waste generated by fracking and other non-nuclear operations in the EU region. It is a comprehensive legal document, incorporating the radiological principles and standards developed by ICRP and IAEA, respectively. It could be used as a blueprint for policy formulation and legislative development by other UN Member States.

There are significant uncertainties in the scientific knowledge regarding the adverse environmental and health impacts of hydraulic fracturing, the probability of their occurrence, and the efficacy of the measures available in mitigating or preventing such impacts.

Hence, the potential environmental impacts and the scale of unconventional gas development make it imperative for policy-makers to ensure that effective and balanced regulation, based on international environmental law principles, in particular the “Precautionary Principle” and the “Polluter Pays Principle”, is in place.

Moreover, in the context of radiation protection, development of legal instruments and regulatory regimes at international, regional and national (domestic) levels need to incorporate provisions for the protection of non-human species, in order to sustain and enhance both the integrity of ecological systems and the public health.

The existing lacuna in the *acquis* of international law in relation to control of NORM waste from the fracking of shale and the production of oil and gas, together with other non-nuclear industries across the globe, may best be addressed by the IAEA in collaboration with other UN Agencies and international organisations, inter alia, UNSCEAR, ICRP, OECD-NEA, and the EU.

The global role and responsibilities of the IAEA, in respect of nuclear safety, radiation protection, radioactive waste management/disposal, and successful promulgation of international legal instruments, under its aegis, are well recognised. This, therefore, places the Agency in a unique position to facilitate the development, formulation and drafting of a binding global agreement, under its auspices, for the safe management of NORM (TENORM) and NORM wastes.

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ELSA/UKELA International Legal Research Group – Call for Topics

The European Law Students' Association (ELSA) is the largest law student network in the world, with over 42000 members across 300 law faculties. ELSA academic activities are those which develop the legal skills of ELSA members. Specifically, a Legal Research Group is an opportunity for students to develop these skills whilst providing valuable interjurisdictional research to the legal community.

How does UKELA fit in? For the next three years, the International Focus Programme of ELSA is environmental law. As both an Assistant Editor for *Elaw* and the new Vice President for Academic Activities of ELSA UK, Jessica Allen is very keen to initiate the first Legal Research Group in this area together with colleagues in France, Ireland and other European countries. She is therefore addressing the entire UKELA network to call for topic proposals in areas where research would be beneficial and valuable. This topic will provide the foundation for the Academic Framework of between 8 and 10 questions, which may also be submitted with the topic proposal.

The project will be open to both ELSA and UKELA student members, all of whom will be eligible to apply to be a member of the National Team. This involves: a national coordinator, usually the Vice President for Academic Activities; a linguistic editor; an academic coordinator; and a number of national researchers. Topic authors are also welcome to express an interest in being the academic coordinator, should their topic be selected, but this is by no means an obligation. The whole project would be completed, published and launched within a one-year period.

An ELSA and UKELA collaborative Legal Research Group would be an excellent student exercise for all of our student members. Better yet, involving the UKELA network in this initial selection process would be a huge honour and an invaluable contribution to the

project. With an idealistic aim to launch the project in September, the call for topic proposals will thus be open (informally) until late August.

Topic proposals should be sent to Jessica at: vpaa@elsa-uk.org.uk

Law Commission – New opportunities for reforming the law

Where is the law not working? Where has it fallen out of step with what modern society needs or wants?

The Law Commission is asking for help in identifying what are the priority areas for law reform. The Commission's four-month consultation is open to anyone who works with or in the law or whose life is affected by it: legal professionals; academics; organisations in the public, voluntary, business and private sectors; parliamentarians, government and the public.

Law Commission Chairman, Sir David Bean, said: "This consultation is an important opportunity to help shape the future priorities for law reform in England and Wales. We want to know about problems that make the law unfair, inefficient, out of date or inaccessible."

"Whatever impact the referendum has on the legal landscape, we must not forget that there are still many other areas of the law that cause real problems for our citizens and require urgent reform. The need for modern, simple and accessible law remains as great as ever."

The Commission is also seeking feedback on suggestions for potential projects reviewing the law relating to:

- surrogacy
- weddings
- the provision of children's social care
- banks' duties to customers
- arbitration
- the conduct of public inquiries
- tackling offensive internet communications
- confiscation of the proceeds of criminal conduct
- business, agricultural and residential leaseholds
- legislative standards, and a programme of codification, for Wales

More information on the consultation and the Commission's suggested projects is available on www.lawcom.gov.uk. The consultation closes on 31 October 2016.

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The editorial team is looking for quality articles, news and views for the next edition due out in September 2016. If you would like to make a contribution, please email elaw@ukela.org by 14 September 2016.

Letters to the editor will be published, space permitting.

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