









The Great Turning the essential adventure of our time

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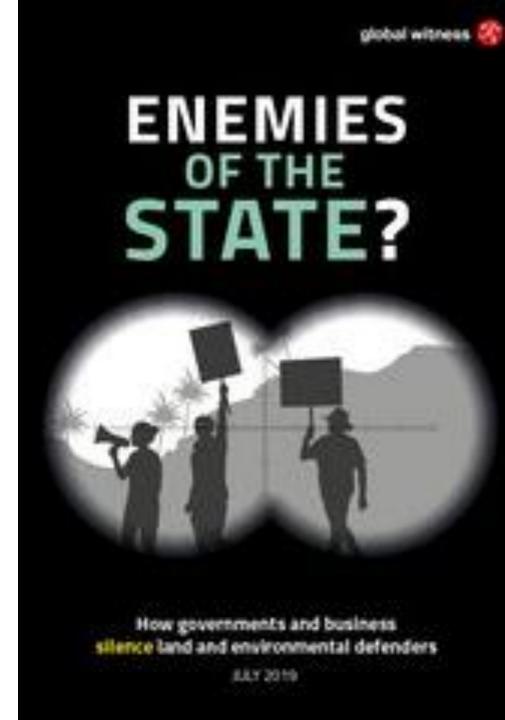
That is our current situation.'



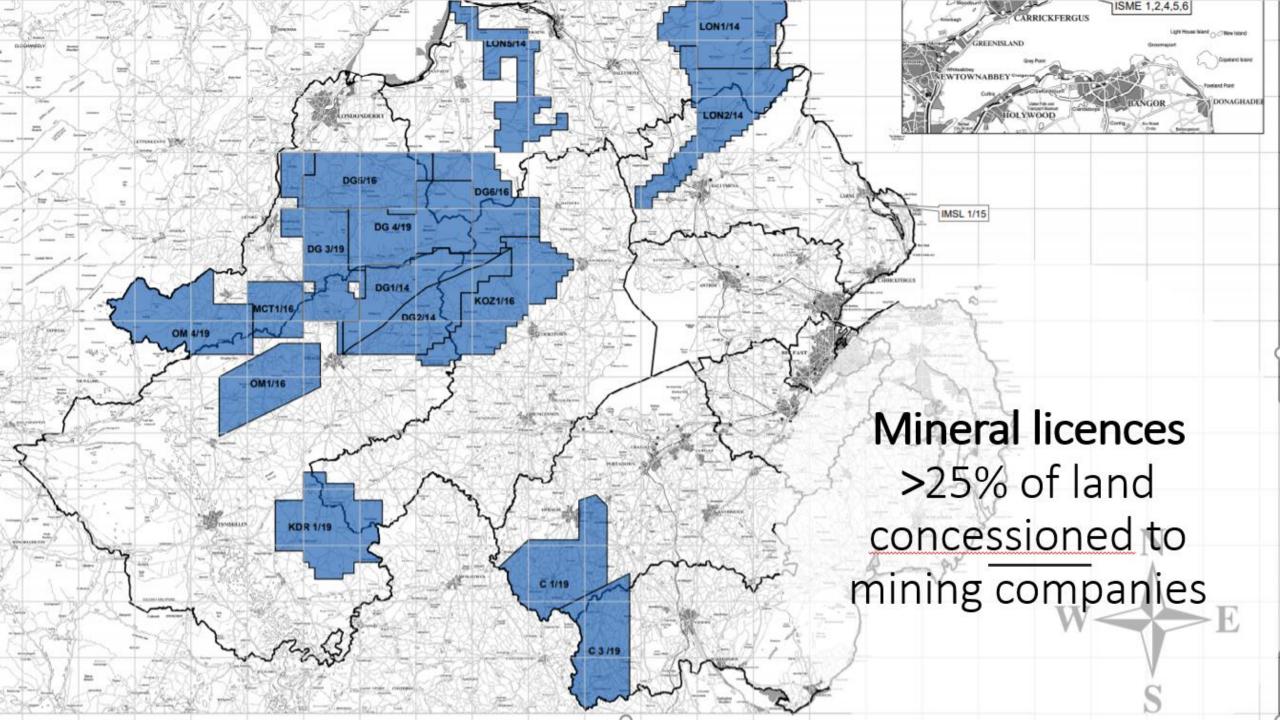
Our Earth, Our Future: To mine or to mind?



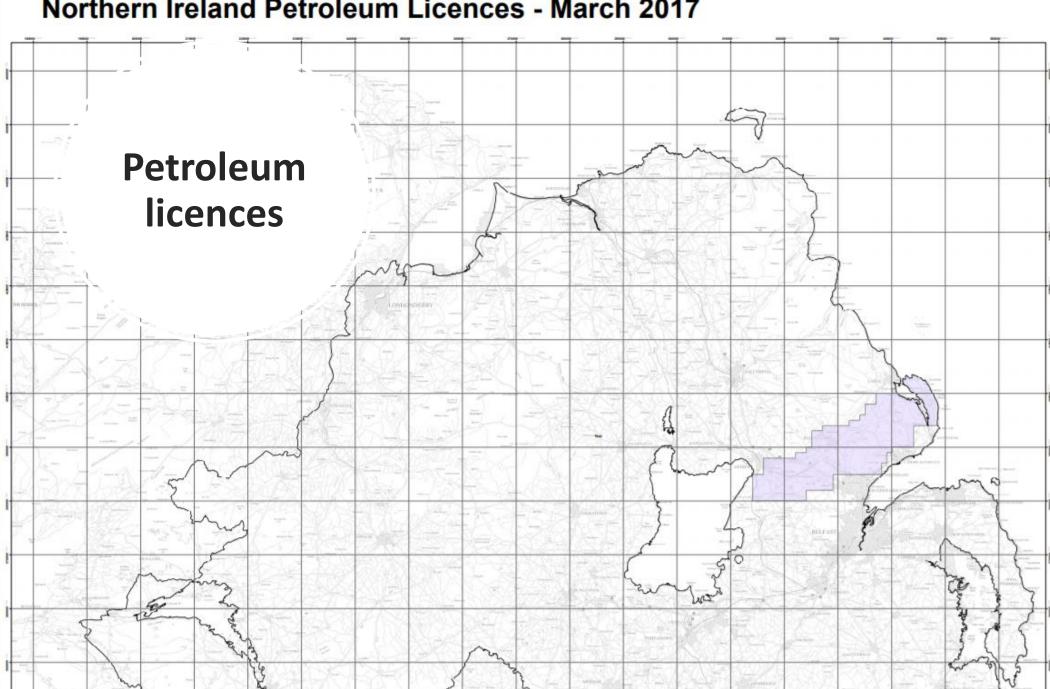
- 164 land and environmental defenders killed in 2018
- 43 of these were connected to mining/extractive projects
- Massacre in India protesting a copper mine 13 killed
- Attacks and threats
- Criminalisation, judicial harassment
- Lack of Free, Prior and Informed consent







Northern Ireland Petroleum Licences - March 2017



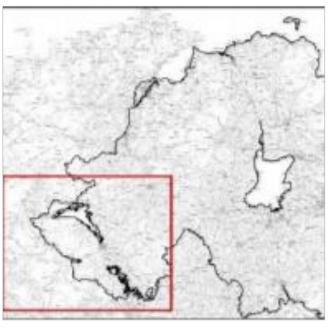




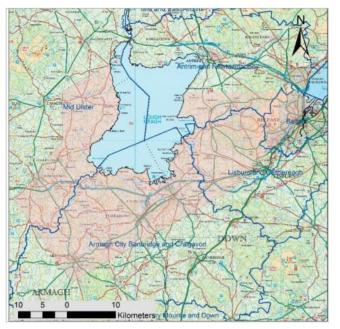
*PL103 was asserted to infraditional pickrODRF OII & Oas UK Ltd.
on 4 March 2014. However, or 27 July 2017 a Deed of Licence
assignment was formally executed by the Licence Partners to reflect
that Terrais Energy Landsel in one the Licence Operator for PL103 as
shown on the Department's webpage for Petrofeum Licensing.
https://www.cocompre.tig.ov.ib/articles/petrofeum-Licensing.

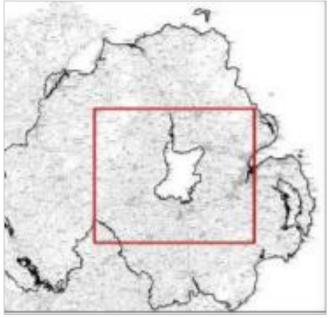
Fracking in Fermanagh





EHA Petroleum licence application area





Covers council areas of:

- -Antrim And Newtownabbey
- -Lisburn and Castlereagh
- -Armagh City, Banbridge and Craigavon

- -Belfast
- -Mid Ulster





Save Our Sperrins

Co. Tyrone

Why the resistance?

- Ecological devastation (Land, Air and Water)
- Human Health
- Livelihoods
- Climate Change
- Superficial consultation vs deep participation
- Loss of confidence in the state
- Neo-colonialism for whose benefit?

Climate Chaos: The Great Unravelling

More Extraction:

The solution?

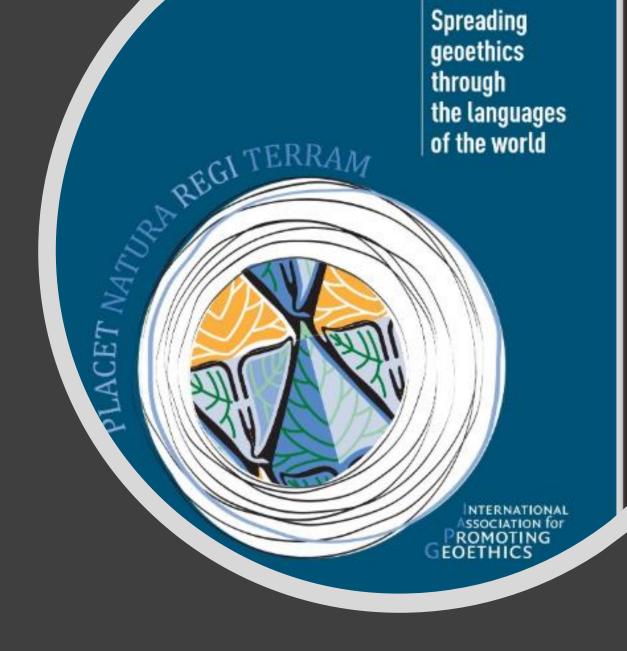
or

Digging us deeper into the problem??



Changing our Story

- "Geoscientists are primarily at the service of society. This is the deeper purpose of their activity"
- "Geoscientists have know-how that is essential to orientate societies towards more sustainable practices in our conscious interactions with the Earth system"
- "I understand my responsibility towards society, future generations and the Earth for sustainable development"









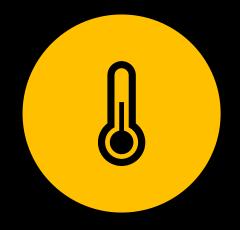
Support Trócaire's call for an International Treaty on Business and Human Rights

International binding treaty

Mineral and Petroleum licence applications should include:







HUMAN RIGHTS ASSESSMENT

STRATEGIC ENVIRONMENTAL ASSESSMENT

CLIMATE PROOFING



Rights of Communities

Rights of Nature









The Great Turning: the essential adventure of our time

Slide 2

If we scale the history of the earth down to 24 hours, modern humans came along in the last couple of minutes before midnight, and we're already facing extinction. Compare us to the trilobites who lasted a whole hour and 36 minutes, and we're not holding up too well. What is our problem? Perhaps it has something to do with the stories we tell ourselves. Ironically, what gave us the advantage over other human species 70,000 years ago may be what is now threatening our own.

As David Korten, from his work The Great Turning surmises: When the stories a society shares are out of tune with its circumstances, they can become self-limiting, even a threat to survival. That is our current situation.'

So the question is: can we change our story before it's too late?

Slide 3

I'm aware that there are multiple sectors in which geoscientists work – including geotourism, geoheritage, groundwater resources, education, research, and resilience in the face of natural hazards. I commend the great work of geoscientists in these important sectors, especially when tackling the causes and effects of the climate crisis. But I won't go further into these

sectors for a number of reasons: firstly because of my lack of experience and knowledge in these areas – and so my lack of anything useful to contribute; and also because of the mostly non-controversial nature of these activities.

Instead, I wish to concentrate on the extractive industries, both locally and globally – because, in contrast, it is both where my experience and the controversy lies when it comes to communities and the environment, and where hopefully I **do** have something useful to contribute.

A disclaimer also that my knowledge and experience of the extractive industries in Ireland is North-heavy, but I believe the issues raised will be transferable to the context in South. Another disclaimer that some of you may not like what I have to say. But I commend IGI for inviting me here to say it, for being open to listening to people who think differently. I for one have been learning a lot from being here and listening to many of you.

Slide 4

Looking globally first of all, in 2018 Global Witness documented 164 killings of land and environmental defenders, averaging out to more than 3 a week. Mining was the deadliest sector — with 43 defenders killed protesting against the destructive effects of mineral extraction on people's land, livelihoods and the environment. The biggest massacre occurred in India with 13 people killed for protesting against the damaging effects of a copper mine in the southern state of Tamil Nadu. Widespread impunity goes hand in hand with these killings — with very few killers actually being convicted. This is in direct contrast to the criminalisation of defenders, with many facing life sentences for non-violently protesting against extractive projects. Countless others are also silenced through violent attacks, death threats or aggressive civil lawsuits. Governments and institutions fail to address the root causes of this violence — such as the lack of free, prior and informed consent, especially with indigenous and campesino populations.

Slide 5

Yet despite the killing, the resistance grows. Despite Latin America being the most deadly region for land and environmental defenders, it is one of the most active in terms of organising and mobilising for community rights and the protection of nature.

One conflict that I have first-hand knowledge of concerns the Conga mine in the region of Cajamarca, in the northern highlands of Peru.

The Conga project, led by Newmont mining corporation, now Newmont Goldcorp, the world's largest gold producer, proposed to extract gold and copper by open pit method. The 4.8 billion dollar project would destroy 4 mountain lakes that are the source of 5 rivers, which serve over a hundred thousand people, 75% of which survive and make a living by agriculture. The same company had operated a mine in a neighouring province and had caused widespread contamination, water shortages, animal deaths and human illness. This is widely documented and the company was forced to apologise for it's dire performance. During the 20 years of mining, the Cajamarca region went from being the 4th poorest in Peru to being the poorest. Belying the promise of 'progress' and 'development' that the mine used to enter with.

The resistance against the Conga project, which would be 3 times the size of what had gone before, began in 2011, in 2012 five people were killed by state forces while peacefully protesting, including Cesar Aguilar, a 16 year old boy, who was shot in the head from an army helicopter. He was the mayor of his school and involved in organising young people in the land rights campaign. I accompanied his mother as her life fell apart, along with the other bereaved mothers and wives. I accompanied many of the 300 defenders who were facing charges for being involved in protests against the mine, some facing up to 35 years in prison for trumped up charges. Reporters were intimidated and beaten, people were spied upon, the community was ripped apart with some people accepting money or gifts from the mining company and others refusing to.

But the organisation, courage and strength of the communities was inspiring, like nothing I've ever seen before. They vowed to give their life if needs be to defend their home and our environment, because they saw the alternative as a slow death with their health, culture and dignity stripped from them. In 2016, after 5 years of sustained community resistance, the company declared that 'it did not anticipate being able to develop Conga for the foreseeable future." This was one of the rare victories. Yet even so the communities were denied the chance to rest easy, as the company has not given up the land they precariously bought, and they continue to intimidate families such as the Chuape family who live on the land the company wishes to mine and who have faced violent attempts to evict them. The threat that they will one day try to

re-start the project is being held perpetually over the heads of the people there who have already gone through so much.

Conga was a project and a conflict that reached international attention, yet there are hundreds, thousands of Congas around the world. Some with more levels of violence, some with less, according to the value that home governments and the international community places on the lives of those who make a stand to protect nature and their rights.

Slide 7

Moving home then to NI, and as context just a few maps, this one shows the mineral licences granted. As you can see over 25% of land in NI is concessioned to mining companies. And, after the results of the Tellus survey, the percentage of land concessioned could rise to 70%, according to the Department for the Economy.

Slide 8

We also have one current petroleum licence active. Less than 10 years ago there were 5 live petroleum licences, however after sustained community resistance, amongst other factors, this has now been reduced to one.

Slide 9

However, there is also currently 2 petroleum licence applications being considered by the DfE – one for Fracking in Fermanagh, Tamboran's second attempt to frack this area. We saw just last month across the water Cuadrilla had to pack up and leave Lancashire after their fracking activities caused Earthquakes that repeatedly and with ever-increasing force, broke the UK Earthquake regulations. Former chair of the company and former boss of BP said himself –' fracking in the UK doesn't make much sense'.

Slide 10

And one for oil and gas extraction in an area that covers 1000km and stretches around Lough Neagh and up to the Belfast Hills.

During the recent consultations for both licences 5,800 responses were received. These have not yet been made public, but we have reason to believe the majority of those objected to the granting of the licence application.

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One of the communities that Friends of the Earth work closely with, is the community of Greencastle, County Tyrone, who have organised to resist the proposed goldmining project of Dalradian Gold.

I won't go into detail about the proposed project, or all the activities of the campaigning groups that oppose the mine, now numbering more than 10.

Instead I think it most relevant to discuss how this conflict shows a breakdown of linking bonds with the state. There is certainly no love lost between the community and the corporation, but it is the state that is supposed to be on their side, at their service, and it is the state that has proven to be facilitating the ingression of these companies who wish to extract against the wishes of the local population.

Seeing the government at PDAC conferences advertising Ireland as 'Open for Business' to the global mining industry while there is such opposition and mistrust at a community level serves only to further erode trust in the state.

It was not long ago that the state represented colonial oppression to many people, our peace in the north is recent and still fragile. The idea of a shared state acting for all communities is a new one, and for the communities of Tyrone that bright idea has be short lived. Yet it is not the old division of Protestant and Catholics, with the state clearly on one side, now it is between citizens and big business. Indeed, the bridging bonds between communities are being repaired and strengthened – as seen in the protest camps of Woodburn Forest and the Greencastle People's Office. The love of our shared home and desire to protect it against threats has brought people together in a way that no peace project ever could. The community of Earth Protectors is growing, and as long as the threats continue, so will they.

Slide 12

Whether in the Andes or the Sperrin Mountains, the reasons communities give for resisting extractive projects tend to be very similar.

Ecological devastation – they fear for the land, the air and the water, and there are many global examples of contamination with toxic waste spills, landslides, leakages from tailing ponds poisoning rivers and much more to justify this fear.

Human Health – the obvious connection between the pollution of the environment and consequent health risks to humans and other animals.

Livelihoods – mining and other extractive activities are mainly planned for rural areas, where the population tend to make a living by farming, fishing or tourism, all of which would be negatively affected if the first fear becomes a reality.

Climate change – especially with regards to fossil fuel extraction.

Superficial consultation versus deep participation.

Neo-colonialism, which can be described as an extension and reproduction of colonial imposition over peoples and lands, nearly always through violence.

I'll expand on some of these ideas further on.

Slide 13

So we've heard a lot today about the Climate Crisis, what some call The Great Unravelling. A global movement has emerged in the past year, with activist groups like Fridays for Future youth strikers and Extinction Rebellion taking non-violent direct action with the clear message that we are heading towards climate breakdown and mass extinction. The 6th extinction, certainly, but the first one caused by the intentional actions of one species, or rather, just some of that species.

A lot of blame is directed towards the fossil fuel industry, and rightly so. The Guardian's front page yesterday led with the story of how '20 fossil fuel companies, whose relentless exploitation of the world's oil, gas and coal reserves can be directly linked to more than one-third of all greenhouse gas emissions in the modern era'. They report that as far back as 1965 industry leaders and politicians knew about the environmental impacts of fossil fuels. And yet they continued. Fossil fuels took millions of years to form and have been extracted and burned with vigour over the past two centuries. The planet cannot regulate this. We have a very small carbon budget left, we have raided the bank. Whatever is left, should be left to countries who need to build up their infrastructure for the well-being of their citizens, we in the Global North have no right to it.

Then we have the mining industry which is often forgotten about in climate debates, yet which continues to destroy critical ecosystems globally, contributing to over a quarter of global carbon emissions (UNEP), and displacing communities already vulnerable to climate shocks in the process.

Despite this, we are seeing certain mining companies positioning themselves as key to solving the climate crisis by claiming that they will deliver the minerals and metals needed for the increasing demand for renewable energy technologies. They hope to expand mining into climate critical environments – such as the deep sea.

It is here that we can see neo-colonialism at its finest. Mining and other extractive industries have disporportionately impacted the Global South, in order to meet the demands of the Global North. Pile on top of that the climate crisis, overwhelmingly caused by the Global North, yet impacting most severely on the Global South, who have not only not caused it, but who have less access to technology and funds to deal with the onslaught of climate chaos. Then comes the notion that we need to mine more, sacrifice more communities, mostly in the Global South, to save ourselves, in the Global North. Because climate change is already a reality for many people in other parts of the globe. One million lose their lives each year to climate and many millions more lose their homes and their livelihoods. If we wanted to save everyone we would have made a start a long time ago.

So more extractivism is not the answer, it only digs us deeper into the problem. And that problem is injustice and inequality.

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Changing our Story

The idea that the extractive industry will get us out of the climate crisis is just Business as Usual. It is the story that is threatening our survival. It's time to change our story.

And it's heartening to see that geoscientists globally have already begun. The Cape Town Statement on Geoethics reads very well.

"Geoscientists are primarily at the service of society. This is the deeper purpose of their activity"

"Geoscientists have know-how that is essential to orientate societies towards more sustainable practices in our conscious interactions with the Earth system"

"I understand my responsibility towards society, future generations and the Earth for sustainable development"

An admirable vision. What is needed now is to challenge the system that perpetuates the opposite of what you stand for.

Slide 15

Even the most ambitious models of climate mitigation fail to take injustice and inequality seriously. Central to these models is the unquestioned acceptance that economic growth and disproportionate consumption of the Global North will continue unchanged, and as such, will perpetuate global and local inequalities and drive the demand for energy, metals, minerals and biomass further beyond the already breached capacity of the biosphere.

There is almost a sense of panic that we will not be able to extract enough critical metals for renewable energy technologies, yet current and even projected material demand for minerals and metals generated by the renewable energy sector are, and will remain, a minor factor in overall extractive demand.

Before moving onto the so-called critical metals, let's look at gold. Gold commands the highest mining exploration budgets across the industry year-on-year. The 2,500 tonnes of gold mined each year is begotten from increasingly lower grade ore, causing correspondingly bigger ecological footprints. Today, producing a single gold ring generates 20 tonnes of mine waste.

Yet what is the need for gold? For the large part it is the need to adorn fingers or ear-lobs, with jewellery accounting for half of global consumption, followed by the 'need' of private investors who buy and keep gold as holdings and investments. The 76,000 tonnes of gold stockpiled in bank vaults alone would be enough to meet the global industrial demand for gold (less than 15% of total demand) for the next 186 years, according to a study by the Institute of Sustainable Futures. With this knowledge it is clear why you would choose the Sperrin mountains over gold extraction.

Moving on to copper, it is the construction industry that is this so-called critical metal's primary driver. Even under the highest demand scenario the renewable energy sector will not consume the majority of this metal's current annual production.

For key battery metals such as lithium, cobalt and nickel, the high projected demand figures are largely based on the current transport trends' reliance on

the private electric vehicle market, rather than on socially just public transport systems or innovative car sharing and traffic reduction schemes. Couple this with smarter cities and changes in work practices and the demand drastically decreases.

Then we come to the alternatives that need to be scaled up – such as the recycling of metals. There are some great examples of urban mining, both locally and globally. It is more labour intensive yet less environmentally destructive, both of these being a huge advantage to the local population, in terms of jobs and nature protection, and the practice contributes to the building of a circular economy. But it needs to be prioritised.

So when we actually have a true picture of what the need is, after the reduction in production and consumption, after recycling and redistribution, then we can assess, what mining is needed and where it can be done – bringing into the equation, along with the geological information, the social and environmental context, and then, do it right.

Slide 16

The UNDP have produced very useful advice for governments and partners to integrate Environment and Human Rights into the Governance of the Mining Sector.

The guidance promotes Participatory and Integrated Land Use Planning, when relevant departments and levels of government and affected populations should come together to plan where mining should and should not be carried out in the country, before any exploratory licences are granted to third parties. Before the extractive industry is invited in.

This was unfortunately not the case for the Strategic Planning Policy Statement at the NI government level, which states that there will not be a presumption against valuable mineral extraction in any area. This does not reflect the wishes of the people.

There is an attempt at participatory planning underway at present with the Local Development Plan process that the local councils are undergoing, but it is being dangerously undermined with the promotion of the SPPS as a directive, and with the inclusion of multinational mining corporations, who can pay consultants to produce 400 page technical responses to the councils' draft

plans, putting communities at an immediate disadvantage and undermining their ability to decide what happens in their own communities.

Other guidance in the UNDP document is the importance of Human rights assessments, as well as strategic environmental and social assessments at every stage in the exploration and extraction processes.

This guidance is a useful source for companies who want to do it right. Yet it does not stop those who do not have those good intentions. With CEOs of big corporations coming out with statements such as 'water is not a human right' and the number of cases of human rights abuses and environmental devastation at the hands of companies, it is clear that something more binding than voluntary principles is necessary.

Slide 17

At an international level we need a binding treaty on Business and Human Rights. Without this communities cannot ensure that their rights are respected when international business comes to their door, nor ensure that they have access to remedy if their rights are violated. An organisation in Ireland leading on this campaign is Trocaire, who join many others in the global call for a binding treaty.

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Nationally, Friends of the Earth are campaigning for all mineral and petroleum licence applications to be required to include the following essential criteria:

A **Human Rights Assessment** – which would include economic, social and cultural rights. and the right to participation in decisions that affect your life.

A **Strategic Environmental Assessment**, also advocated by the UN, to understand the bigger picture. Environmental impacts of projects do not stop at the line on the map, they spread throughout the ecosystem and interact with the impacts of other projects. In the same vein, one individual bore hole may not have a huge impact, but hundreds of individuals together will certainly.

Climate proofing, The 1964 Petroleum Act, whose minimal requirements the DfE relies on when granting petroleum licences, does not of course stipulate that proposals should be climate proofed, but the world has drastically changed in the more than half a century since this law was written, and we are now in a climate emergency. Thus the urgent need for new legislation, yet

while we wait on an ever-elusive government reforming, the DfE has the ability, from the UK Climate Change Act, to include this essential criteria.

Slide 19

Yet communities are sick of waiting on our politicians and our government departments to act for them. As I mentioned earlier, trust in the state has been severed, if it was ever there. Communities are stepping out of the 'Box of Allowable Activism' and taking their power back. They are working locally to protect their rights and our environment.

One of the ways they are doing this is by working to enshrine the Rights of Communities and the Rights of Nature in local law. The recent council elections saw a move away from the larger sectarian parties, and a move towards smaller parties and independents. Indeed some new representatives were put forward by activist movements holding back extractive projects such as fracking and mining. These new dynamics within the councils, coupled with community scrutiny and a readiness to take direct action when needed, is leading to a democracy at a local level that is vibrant and direct.

Slide 20

The Rights of Nature campaign recognises that our eco-systems need rights in order to ensure they are protected, and the campaign is growing. In 2008, Ecuador became the first country in the world to recognise the Rights of Nature in its constitution. Two years later, Bolivia followed suit with its Mother Earth Law. In the last few years, Colombia, New Zealand and India have all recognised the rights of some of their most important rivers. Mo<u>re</u> recently, in the United States, one of the Great Lakes, Lake Erie, was granted the right as a distinct ecosystem 'to exist, flourish, and naturally evolve'.

Of course, this is not the end of the story. Just because we have universal human rights does not mean that no human is exploited or violated. Similarly, the Rights of Nature does not mean that nature will be automatically protected. It needs to be supported by vigilance and effective legal remedy. But the fact that these laws exist in the first place says something about a society – that the destruction of nature is not acceptable here.

Slide 22

In conclusion, we need to move away from Business as Usual, which means moving away from the industrial growth model, the extractive mindset, the story that we are separate from, and dominant to, all other forms of life on Earth, because that story is what has gotten us into this mess, and it certainly won't get us out of it.

We need a Justice Transition, where the rights of nature and communities are recognised and upheld. We need systems that support life, that sustain us and our eco-systems, that sacrifices no-one or no community. This transition may be uncomfortable and difficult – for those of us who are used to comfort and ease, but it is entirely necessary if we are to hope for a just and equitable global community, indeed if we are to hope for a future we want to live in and that we will be proud to pass onto our children and to future generations. Business as Usual or The Great Turning – that is our choice.

And of course I have to end with a quote from Greta: 'we are standing at a crossroads in history, we are failing but we have not yet failed. There is still time to fix this. It's up to us.'