MR. ANDY GHEORGHIU: Well, hello everybody. First of all thanks a lot for having me here. It's really an honor to have the opportunity to present for the Permanent Peoples' Tribunal Session on Fracking, Human Rights And Climate Change.

My name is Andy Gheorghiu and I work as a campaigner and consultant for Food & Water Europe which is the European branch of Food & Water Watch. And today I'll try to summarize, in this presentation, the Amicus Brief I was able to send on behalf of Food & Water Watch and Food & Water Europe for the Permanent Peoples' Tribunal Session On Fracking, Human Rights And Climate Change.

Okay. Let's get started.

So I'll go through the four questions that you've asked about and I'll try to give the brief summary of our answers.

So the first question was, Under what circumstances do fracking and other unconventional oil and gas extraction techniques breach substantive and procedural human rights protected by international law.
as a matter of treaty or custom?

And I think before we start really answering the question it's very important for me to make people aware of the fact that fracking itself cannot break anything. It's just the technique.

So if we want to focus on the people that are the right addressee then it's state and non-state actors that we must focus on. So it's not fracking, that doesn't breach anything, it's the people behind the technique, the markets behind the technique and the whole demand that is interlinked with it.

And a second very important thing is to define what fracking is. Because we have, in several parts of the world, we have different definitions of what fracking is and what fracking is not from a legal perspective.

For us at Food & Water Watch and Food & Water Europe when we speak of fracking we speak of the whole process. So it's not about the pure fracturing of the rocks. It's about the whole industrialization that is necessary and interlinked with fracking, it's about the construction of the whole infrastructure including pipelines, LNG terminals and so on and so forth. So it's the whole life cycle that is interconnected with fracking itself. And I think that this is something
very important to keep in mind.

Now what is fracking in actual fact and why do we speak about unconventional and conventional deposits?

So usually hydrocarbons migrate through space and time. They try to reach the surface from underground and when they are then gathered in a natural trap, as we see here, this is what we usually call conventional deposits. So you drill a well and then you start exploiting the site. It's gas or oil that you will extract then out of this ground.

What we call unconventional or non-conventional deposits are the hydrocarbons that are being trapped in geological layers. For example, shale layers, coal bed methane layers or sandstone layers.

Because the hydrocarbons are dispersed in the geological formation you will have to drill down sometimes at first vertically until you reach the geological layer and then horizontally into the layer and then you'll start pumping large quantities of water under high pressure mixed with sand and toxic chemicals in order to fracture the rocks and to release the hydrocarbons so that you're able to extract them. So this is the main difference.

However, the European Commission and the
United Kingdom have tried to find their own definition of fracking meaning that they've linked their definition of fracking to the amount of water that is being used per well in order to fracture the rock and to start the extraction of the hydrocarbons. So the threshold they're using is 10,000 cubic meters of water.

If you use less than 10,000 cubic meters of water then the United Kingdom and the European Commission do not consider this to be what they are calling high volume hydraulic fracturing. Meaning that a less strict legal framework is applicable. But what they do is they basically apply these legal frameworks to certain fracking projects but this means that a large amount of other projects won't be covered by this definition.

Germany has a similar approach. The German government simply redefined, based on no scientific evidence whatsoever, redefined sandstone layers where we find tight gas as conventional layers. They just said it's conventional layers and they've invented a term called conventional fracking.

So if a company in Germany, for example, wants to extract hydrocarbons from a sandstone layer, mainly tight gas, then this kind of fracking, what they call conventional fracking, faces less stricter regulations.
than if you want to do a fracking operation in shale layers which is, for the moment at least, generally forbidden in Germany. So this is something that we really have to keep in mind.

For us personally there is no such distinction. So every kind of site that needs to be stimulated or fractured this all falls under what we, at Food & Water Watch and Food & Water Europe, understand as fracking and all the risks and negative impacts that we will talk about in a minute are related this kind of fracking. But there are attempts to redefine fracking in order to avoid stricter regulations.

The next slide I wanted to show, I wanted to make people aware of, is that it is not about this one fracking operation. It's not about one well. The industry will try to get a license for an area and they will start with one or two, three exploratory wells and the whole debate will be about, well, don't worry, it's just one well. Maybe we'll need another one but this is it.

In most cases, and I've seen it in the UK right now, they already talk about the need to develop a license field. And this means drilling hundreds and thousands of wells over a life time of 20 to 40 years.
government, makes a decision about whether or not they
want to open their doors to shale or tight gas
development they should be aware of the fact that it
will be about the industrialization of this whole area.
And in most cases we talk about the
industrialization of former rural areas. And this fact
includes having a lot of negative impact for the
environment because it's, of course, a totally different
scenario to have woods and just a few streets and roads
and agricultural and it's a complete different scenario
if you start industrializing this area.
And the picture that you see here is the
amount of wells that were drilled in Pennsylvania. We
talk about over 10,000 wells within a decade just to
give you some kind of vision what shale development
really means.
Now if we look the numbers up they themselves
speak a pretty clear language. So according to industry
reported data and the Frack Focus data base we had, in
the United States, at least 137,000 wells that have been
drilled since 2005.
The water use since 2005 is at least 239-
billion gallons. Produced toxic waste water in 2014
alone was at least 14-billion gallons. And this means
that this toxic waste water the industry needs to
somehow get rid of it. And in a majority of cases this means disposing the waste water underground, injecting it underground and this is what has caused a lot of earthquakes in states like Ohio, for example, a state that wasn't really known for having a problem with earthquakes before the industry started to inject large amounts of toxic waste water into the underground.

The global warming pollution from well completions in 2014 alone was at least 5.3-billion pounds. And this is equivalent to the global warming pollution from 22 coal fired power plants.

Now we also have a bunch of peer reviewed studies within the same period and I think that you have or will have a lot of experts that can talk much more about all the outcome of the studies.

I just want to mention that of the 685 peer reviewed studies that looked at the time frame between 2009 and 2015 and only looked at studies, commentaries and reviews published on fracking for tight gas and shale gas, so this excludes studies related to tight oil, shale oil and also coal and methane but only looked at them they found out that 84% of the studies on health impacts identified potential public health risks or actually observed poor public health outcomes.

96% of the water quality showed potential
positive association or actual incidences of water contamination associated with shale gas development.

87% of the studies on air quality indicated elevated levels of air pollutant emissions and/or increased atmospheric concentration as well as a massive problem with methane emissions.

Before I start talking about the very, very overarching big problem with methane emissions and climate change I would like to just stress a few facts about the problem and the competition we have in this case with water.

A study done by the World Resources Institute back in 2014 found out that 38% of the world's shale resources face high to extremely high water stress or arid conditions. They found out that almost 400-million people live on land above shale plays, meaning increased competition for water and also public concern over hydraulic fracturing that will be more likely in densely populated areas.

In China, China has a very big problem with water or the lack of water, and 61% of shale resources face high water stress or arid conditions. And even in the United Kingdom, a country that I wouldn't have thought they had a problem with water, 34% of the shale plays face high water stress or arid conditions. And we
see this also in a direct competition with existing underground aquifers.

For example, in North Africa what you see here is the dotted lines. These are shale plays and the blue areas this is -- these are existing underground aquifers. So you see there is a direct competition here. Meaning that if you want to reach the hydrocarbons in the underground you'll have to drill, somehow, through this underground aquifer.

And the same is valid for big parts of South America. For example, here where we have the Guarani aquifer and then again you see the areas where the dotted lines these are the shale layers.

So in both cases this is, of course, something of high concern. Especially, I think, from a European perspective if we think of North Africa and the problems we already face there with regard to the mass migration upwards towards Europe I think that if something happens there and if we have some kind of massive contamination of these very important underground aquifers the problems we already face with mass migration will grow.

So when we talk about fracking and the relation to human rights and climate change I think that the increasing social and military conflicts that will be caused by an increased global warming is something
that will affect us all, will affect all of our human
dights, and this is something we need to keep in mind.

We also need to communicate this, I think, in
a much more -- in a way that the public understands.
Even the people who are maybe not really keen to switch
to renewables they should be aware of the fact that the
expansion of the fossil fuel industry, in particular the
expansion of the fracking industry, will definitely lead
to an increase in global warming. And this has its own
very negative impacts on us all.

This is a graph that shows the problem we're
facing at the moment and also shows the need for swift
and courageous actions because what we simply don't have
is time. What we see here is the level of global
warming where we should somehow stay because this is
something that we will somehow be able to manage.

So if we stay somewhere in between 1.5 and 2
degrees global warming this is a scenario that we can
handle. If we overshoot the 2 degrees global warming
this might lead to run away climate chaos. No scientist
on earth can tell you what this really means but what we
see already, the impact of climate change that we see
already, they threaten the most existential resources
that we need, which is fresh water, drinkable water,
fertile soils and also breathable air basically.
And what we see on this graph here is that if we do tackle CO2 alone we won't be able to stay somewhere in between 1.5 and 2 degrees global warming. It's only if we tackle CO2 carbon dioxide, methane, which is CH4 and black carbon, will we be able to stay somewhere in between 1.5 and 2 degrees global warming.

The problem is that we've already reached the 1.1 global warming in 2016. Meaning that we will reach, within 12 years, the 1.5 and within 32-years will overshoot into 2 degrees global warming.

Now because of all the field studies that were done, mainly in the United States, we know that we have a massive problem with methane emissions from the production of shale and tight gas and shale oil and tide oil.

What we can say is that we have methane loss of up to 4% within the production of so-called conventional gas but the methane loss of within the production of so called unconventional gas could be up to 12%.

Meaning that, again, if we don't pay attention to this and if we don't stop the expansion of the fracking industry we won't be able to stay somewhere in between 1.5 and 2 degrees global warming. Meaning that we will most definitely reach climate tipping points.
which will then lead into run away climate change.

This is also something that Professor Howarth has illustrated and he has even shown that if we take the methane losses into account and then look at the climate balance of shale gas compared to other hydrocarbons, shale gas looks worse than coal. And I'm definitely not here to promote coal.

We must go off fossil fuels completely which means including coal, oil and gas. But reducing methane emissions meaning, for me personally, stopping production and banning fracking will give us a few more years, years that we need to reduce year two and then to avoid runaway climate chaos.

A new NASA led study also recently showed that the biggest increase that we realized concerning methane emissions is due to fossil fuels.

Now, nonetheless, what we observe when we look at the markets is that the industry wants to expand. And the most recent phenomena that I personally came across with Food & Water Watch and Food & Water Europe came across, is that a lot of fracking, a lot of the current expansion of the shale gas industry is directly related to the production of ethane and ethane is a feed stock for plastics and petro chemicals.

Which brings, of course, a completely new
dimension to the whole pollution scenario because now, for the first time, we can say that plastic pollution is the visible ugly face of climate change and it's also directly linked to the expansion of the fracking industry in the United States.

At the moment we have, in the United States alone, some 325 new petro chemicals investments, about almost 200 billion dollars worth. And there are on the way or planned, 40% are already completed.

Now the question was how human rights are affected?

And I think that through what I was just saying related to the slide you just saw is that we can definitely say that a lot of human rights might be or are already affected by fracking projects.

And then, again, it's really important to be aware of the fact that we must take the additional infrastructure, such as pipelines and LNG terminals and petro chemical facilities, into account.

So I've created this table giving you some of the legal references. I think, again, you have a lot of experts out there who are able to talk much more about this and also to refer to other existing conventions that might play a role.

So what we can say is that fracking projects
affect the right to life, liberty and security of people;

The right to a standard of living that is adequate for health and well-being;

The right to the highest attainable standard of physical and mental health and well-being, including the healthy development of the child, improvement of environmental and industrial hygiene and prevention of occupational and other diseases;

The right to safe and clean drinking water and sanitation;

The right to freely pursue self-determination, economical, social and cultural development.

Because in a lot of cases in a lot of countries we see strong opposition against the development of shale, against fracking projects. Nonetheless we see states and non-state actors trying to impose fracking upon people.

The right to territory is directly linked to what I've just said;

The right to free disposal of natural wealth and resources.

I think each one of us, each region, each country, should be able to choose what they do with their own natural wealth and resources. We shouldn't
allow globally operating international companies to extract those resources wherever they want to if the people who live there decide otherwise. The right to property is, of course, is directly linked to that, whether alone or in association with others.

We see, for example, in the United States we have now a pipeline project called the Mariner East 2 pipeline. This brings wet gas, ethane, to the Marcus Hook facility in Pennsylvania and from there it is being transported to Europe for plastics production. And the authorities are using a legal term called eminent domain in order to get access to private property.

Now usually, as far I'm aware of, is that you can use eminent domain if you need to extract the resources because it's for the good of the majority of people but in this case they're using eminent domain to let the private company build this pipeline and then simply export the hydrocarbons to Europe.

The right to public consultation has been affected quite a few times.

I've seen it, for example, in Germany where we have no strategic environmental assessment related to fracking projects. And we have also cases in Argentina and also South Africa where indigenous tribes were not...
consulted before licenses were given away.

The right to protection of motherhood and childhood can be affected:

Right to actions preventing the risks and impacts of climate change;

And the right to sustainable development.

All these human rights can and are already affected in some way or another by fracking projects all around the world.

Now we are coming to the second question which is, Under what circumstances do fracking and other unconventional oil and gas extraction techniques warrant the issuance of either provisional measures, a judgment enjoining further activity, remediation relief or damages for causing environmental harm?

Well, our stance is pretty simple. Climate change is one of the most urgent and complex threats to our human rights today. And fracking poses significant risks to the natural environment through loss or fragmentation of habitat, disturbance of wildlife and potential pollution of water courses that support sensitive ecosystems and biodiversity and as a driver of climate change.

And, therefore, nothing short of an outright ban on fracking and rapid cessation of fossil fuel
extraction and consumption will remedy the many
associated harms of the oil and gas industry.

Other provisional measures, a judgment
enjoining further activity, remediation relief or
damages for causing environment harm are simply
inadequate half-measures. Because the industry will
always try to avoid taking responsibility for any
damages and/or environmental harm they've done.

And I think a very good example for that is
the so-called Exxon, a new case, where we now have
evidence that Exxon Mobil knew of climate change since
as early as the 1980's but, nonetheless, they've tried
to -- lobbied against the scientific proof that climate
change is real and that the fossil fuel industry is
directly responsible for the increasing of global
warming.

The third question is what is the extent of
responsibility and liability of state and non-state
actors for violations of human rights and environmental
and climate harm caused by these oil and gas extraction
techniques.

Now I want to highlight just two cases from
the United Kingdom. I mean there are lots of cases and
I think you will hear of them or you've already heard of
them so I'll just focus on the UK and two cases related
OK, one is related to a very specific company that plays a very vital role in the fracking debates in the UK at the moment. The name of the company is Ineos. And the company is owned by a billionaire called Jim Radcliffe.

So if we look at the UK, first of all at the Lancashire case, we see that if we debate fracking and the negative impacts of fracking projects there is this huge amount of debate around public health impacts. Everything related to climate change, everything related to water, water usage, water contamination and so on and so forth.

But there is also a question, a big question, around the state of democracy. All around the world when we talk about fracking projects, shale development and the almost inevitable confrontation between state authorities that unfortunately very often support the private company instead of supporting the people who are opposing the projects and who at least, in my opinion, have the better arguments.

So the Lancashire case I think is pretty symbolic. It might seem a small case but I think it's a good example. In 2005 the Lancashire council had rejected fracking plans by a company named Caudrilla but...
the UK government overturned the local decision and gave
the go-ahead in 2016.

Now ongoing protests followed and with almost
daily clashes between activists, Caudrilla's private
security and the police. Campaigners also launched a
court appeal to stop fracking in Lancashire but the
court dismissed it in January 2018.

Now so far fracking protesters have,
nonetheless, prevented Caudrilla from conducting the
first fracking operation in the country since 2011 but
this means a day-by-day confrontation. So they have a
camp nearby the fracking site and it's -- again, I
repeat myself it's a daily fight for every lorry, for
every piece of equipment that goes to the site and so on
and so forth.

And you can also see how during the summer
months when more campaigners are, of course, able to
come and work the local campaigners you can see in the
graph down below here how the number of arrests grow
during the summer months.

So the question, the current situation in the
UK raises many questions regarding moral, legal and also
democratic legitimacy of the whole situation.

The first question is why is the government
counsel. We think that local councils should decide about the basic question of whether or not they want to industrialize their own area.

Second question is why are the courts ignoring the reasonable arguments put forward by campaigners that, in this case, the environmental impact assessment is not considered, the environmental impacts of both the exploratory stage and the full production stage that might be fought for in the future.

Because it's very difficult to decide a moment in space and time when you say we don't want to have more development. Meaning that you will have to take the cumulative impacts into account from the beginning. To have the debate from the beginning about whether or not you want to industrialize the licensed area. But, unfortunately, this is something that many state authorities are not willing to take into account.

But it's related to the second question, which is why are the courts ignoring the reasonable arguments? The public health impacts of fracking have not been properly considered according to the precautionary principle. And this relates to the question of the full scale development.

It is, of course, a totally different issue if you look on the possible health impacts of one well or
if you take into consideration that you will have to face in space and time 100,000 wells within your area.

And concerns about the state of democracy and human rights in the UK couldn't be high enough if we additionally take into account -- and this is very troublesome I would say -- anti-fracking campaigns. And campaigners have been listed alongside terrorist organizations, including the IRA, Al Qaeda and ISIL in official counter-extremist documents from four regions of the UK.

And Jim Radcliffe, the billionaire I've mentioned and the main owner of the petro chemical giant Ineos, secretly lobbied George Osborne when he was chancellor of the Exchequer to muzzle the unions to cut company taxes and also to back fracking. Which brings us directly to the Ineos case.

We, at Food & Water Watch and Food & Water Europe, are currently involved in a campaign, a trans-Atlantic campaign against Ineos. That's the reason why we've produced three issue briefs that looked into the company.

One deals with the already mentioned Trans-Atlantic plastics pipeline that brings fracked hydrocarbons from the United States to Europe.

The second one looked into the corporate
profile and history of the company. And Ineos is a very, very intriguing and fascinating example because we see that this company transforms from a former pure petro chemical company dealing with a downstream business of the production of plastics and petro chemicals into an upstream producer.

Meaning that they want to become the biggest fracker in the United Kingdom. They want to have control over the whole production cycle.

And the third issue Brief that we've published into their very checkered bad environmental frack record in Europe at all their petro chemical facilities because we wanted to show that this company, who down plays the risks of fracking in the United Kingdom, is not even able to do a good daily business within their petro chemical industry.

The graph you see here is the one that shows you this existing Trans-Atlantic pipeline. And I'll stress this one again because I really want to make you aware of the fact that if we talk about fracking, the impacts of fracking, the role of fracking with regard to climate change this new dimension of the extraction of hydrocarbons, not even for energy security reasons, is very important.

So what we see is an expansion of the existing
industry but now with a totally different focus, the
focus of producing plastics and petro chemicals with,
and I repeat myself, its own negative impacts for the
oceans and the planet and also for our human rights.
Because we have studies that show that sea salt contains
plastic and we found plastic fibers in tap water all
around the world.

Last year we filmed plankton eating plastic,
meaning it has entered the food chain. So it's a very
important issue and it is directly linked to fracking
and the current expansion of the industry, especially in
Pennsylvania and in the United States.

I told you already about Ineos and that they
want to become the biggest fracker in the United
Kingdom.

Now there are a few more things I want to
highlight and to also to raise awareness about the
democratic deficits that we see in the United Kingdom.
First and foremost I've already mentioned that the
company is owned by a billionaire. He's now the richest
man in the UK. And I've gathered some quotes of him,
direct quotes, but also some kind of actions that Ineos
has done during the past two years showing us that this
company wants to frack no matter what. So whoever
stands in their way they want to push them aside.
So first Jim Radcliffe talked about the risks of fracking and he tried to down play the risk by saying that it is just like a puncture in your car so occasionally you get a puncture and occasionally you have an accident in chemicals. This is as he sees it. And maybe this gives us also maybe an insight into the psychology of these big international companies.

I think their perspective is a totally different one and this -- so it's even more important to raise our voices and raise our concerns because what might be an occasional puncture for a big company like Ineos is a major catastrophe for communities somewhere around the world. And we cannot allow companies like Ineos and others to stomp over our humans rights as if it's nothing but a field that needs to be concurred and developed.

Another very important thing that opens or gives us an insight into their perspective is the fact that he talked about the symbiotic relationship between the local community and the chemical plant and he said that this is important because occasionally if things go wrong and you need, they need, you know, we need their sort of empathy from time to time.

This means that, and it's also directly related to fracking, as soon as a company starts...
developing a fuel and if it's a company like Ineos with such a perspective, such a vision needs, they will also take over the whole economy of this region. Meaning that even if something goes wrong people will be dependent on them, economically dependent. Again, a very important thing to keep in mind if we add the human rights dimension to that.

And there are two other things that I want to mention and then I'm done. One thing is that Ineos was able to get a court injunction from a high court in the UK against persons unknown, meaning basically everyone. And they can go to jail for up to two years or they can be find for up to 5,000 pounds for any kind of so-called unlawful protest, but this includes even slow walking in front of vehicles trying to prevent them from reaching the site.

Ineos has filed a lawsuit against Scotland who, after a very basic democratic process of public consultation for over a year, has decided to implement an indefinite moratorium on fracking. And they've also filed a lawsuit against the National Trust in the United Kingdom who have denied Ineos access to a nature protection site, Clumber Park, basically saying that they don't want the Clumber Park to be industrialized.

Ineos is taking them to court saying that it's their
right to enter the Clumber Park and start developing it.

And they do not even shy away from places like Sherwood Forest. They have also licenses to develop shale gas within and also nearby the Sherwood Forest.

And now the first question and I'm done. What is the extent of responsibility and liability of states and non-state actors, both legal and moral, for violations of the rights of nature related to environmental and climate harm caused by these oil and gas extraction techniques?

Well, again, a very clear statement from Food & Water Watch and Food & Water Europe, we think that state and non-state actors are fully responsible and should be held fully liable for, in view of the existing knowledge, and this is very important evidence, deliberately conducted violations of the rights of nature related to environmental and climate harm caused by the so-called unconventional oil and gas extraction techniques.

Thank you.

MR. GILL BOEHRINGER: This is a terrific presentation. You really packed a lot of important things. I agree with Tom about those, those two elements but I really appreciate it. Gave me a very
good overview of what is happening. We've had a lot of empirical studies and testimonies of specific and individual cases but this puts it into kind of a political economy of what's going on and I appreciate it greatly. It's terrific work you're doing.

MR. ANDY GHEORGIU: Thanks a lot for that and I hope that it will be of some kind of help.

MR. GILL BOEHRINGER: Oh, yeah. Great help.

[youtube.com/watch?v=We6hzjJoy2E&t=4s]