Letter from Non-Governmental Organizations to Ewa Kopacz, the Prime Minister of Poland

The Special Hydrocarbons Act: An unprecedented threat to democracy, the environment and local communities

Honourable Prime Minister,

The draft special law on the preparation and implementation of investments into prospecting, exploration, extraction and transport of hydrocarbons (the so-called "Special Hydrocarbons Act"), which has been presented by the Minister of the State Treasury, will give special entitlements to extraction companies, exempting their activities related to the exploration and extraction of hydrocarbons (including unconventional forms such as shale gas and shale oil) from a huge part of the Polish regulations. The interests of extraction companies will trump the interests of the environment and society.

Ewa Sufin-Jacquemart

Shale gas extraction is an excellent illustration of the disease of our time, which is the hegemony of supply-side economics and the imperative of constant economic growth – we consume ever more and at ever faster rates, using more resources and creating ever more waste and pollution. For the extraction of shale gas requires growing numbers of drills to exploit profitably the whole deposit. In a competitive free market economy, where there’s no long-term management of a valuable resource and where everything that is produced is marketed immediately, a rapid increase in the supply of gas leads to a decline of its price. The production of gas from each drill is high in the first year or two, and then rapidly decreases and remains at a low level for the rest of the process. Therefore, to maintain a high level of production and income, the new drills have to be made at an increasing rate which grows as the market prices of gas go down. The more drills there are, the more gas ends up in the market and therefore the lower the price, which in turn leads to more drills.

If this project becomes law, it will be impossible to stop. If the law is adopted in its current form, this will be a stark violation of basic civil rights and the rules of democracy, enshrined in the Polish constitution, the EU legislation and international law, including the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

We would also like to emphasise that the proposed piece of legislation makes no distinction between unconventional hydrocarbons, extracted using the controversial fracking technology, and conventional ones. It comes at a time when hundreds of scientific papers have demonstrated the dangers that the extraction of unconventional hydrocarbons creates for the environment, water, the climate and public health. New York State, after investigating these works, decided to replace its moratorium on fracking with a permanent ban. Taking all of these issues under consideration we call on you as the Prime Minister to rethink this law and stop these harmful, extremely dangerous and undemocratic proposals.

The letter comes with a detailed justification of the arguments put forward in it. It already has been signed by several NGOs. We would like you NGOs, social and ecological initiatives, local governments and political parties to add themselves to the list of signatures. It can be done by sending an e-mail to frack@signatures.org.
Barbara Jarmoska

There is a threat at my doorstep that causes me to flinch between cowering in fear, basking in denial and screaming in outrage. I don’t know how to battle such a formidable enemy. What great irony, as for 32 years, I enjoyed a career as a messenger of good health and well-being. (www.road-2-health.com)

These days, I am spending hours planning how I might gather my family, pull up stakes and find a new homeland. We are no longer safe here. The gas industry has arrived and staked its claim to thousands of acres of Penns Woods. The DEP has permitted multiple gas wells on the Loyalsock State Forest that surround my property. The Susquehanna River Basin Commission (SRBC) grants consumptive use permits to withdraw millions of gallons of water from the watershed that includes the creek that runs past my front yard.

For decades, the only access road to this remote, beautiful and wildlife-rich area was a single-mile “no outlet” road that goes past my driveway and used to dead end at a hiking trail in the Loyalsock State Forest. Most days, not even single grasshopper or deer dare venture by during my 2-mile walk along this road. The dog trotted off-leash beside me, and neighborhood dogs would drive by, slow down and wave, or stop to chat as country folks are apt to do. The Loyalsock Creek is just over the bank – a stone’s throw from the road. I could ride my horse up the mountain, to the place where the one-lane road became Dad-Dad Chapman trail on state forestland. That trail is now gone, gated off, and posted with trespass warnings. Chainsaws and gravel-carrying dump trucks have changed the narrow trail into a wide gravel road through the forest and onto two well pads built nearly side-by-side. They daily walk and frequent horseback riders, and we are no longer a simple creek side life have come to an end.

The lives of all Butternut Grove residents have forever changed at the hands of the corporation claiming the right to send its trucks up the road, to foul the air with diesel fumes, to generate noise, to disturb the ecosystem on the mountain, to haul truckloads of toxic fracking chemicals up and millions of gallons of toxic “produced” water back down. We no longer feel safe enjoying the Loyalsock – a beautiful creek that begins in Sullivan County and travels 64 miles on its way to the West Branch of the Susquehanna River. For years, this Exceptional Value stream has provided recreation for hundreds of fishermen, kayakers, inner-tubers, swimmers and summer-cabin dwellers – offering water that dances and glimmers and supports abundant fish, amphibian, bird and wildlife – water they now mix with toxic chemicals and force at great pressure into the Marcellus shale.

My grandfather bought these 20 acres with their mile-long creek frontage in 1953. The memories my family has made here are priceless and my grandchildren would have been the 5th generation to raise children. Those of us who remain talk of abandoning our heritage and leaving the area.

The industry has been carefully mapping out its strategy for years, repealing state and federal laws that would have protected us. The gas rush is here, and the special place we once called home has become the Marcellus Sacrifice Zone.

The FracTracker Alliance is thinking boldly: exploring new topics, investigating local concerns, building more partnerships, encouraging citizen science (in part, through a mobile app), invigorating social media and communication tools, and reaching out to audiences near and far. In fact, they’ll be taking their findings on the road in 2015 – with workshops planned in Florida, North Carolina, Argentina, United Kingdom, Belgium, Hungary, and Poland (yes, Poland!). Details of the Polish workshops are currently being planned. In the meantime, FracTracker encourages Polish audiences to visit their maps and other resources and share questions, photos, and data – anything that will contribute to a better understanding of these important issues and help FracTracker be a continuing resource for good.

Brook Lenker

FracTracker was launched in June 2010 as a project of the University of Pittsburgh’s Center for Healthy Environments and Communities. The initial geographic focus of the project was Pennsylvania and the need to move from a state that is a leader in terms of non-renewable energy extraction, to one that prides itself on growing natural gas extraction in the Marcellus Shale. In 2012, new structural options were considered for FracTracker and that summer, a new independent 501(c)3 non-profit organization was formed—the FracTracker Alliance.

Every day the FracTracker Alliance shares maps, data, and analyses to enlighten America and the world about the impacts of unconventional energy extraction. The organization is based in Pennsylvania but has staff now in Ohio, WV, PA, and CA. Their website covers oil and gas activity in over 30 U.S. states, national data trends and issues as well as international organizations. The website encounters over 450,000 page views and nearly 150,000 unique visitors annually.

Their work pays dividends: a website visitor discovers drilling nearby; a legislator learns about the industry’s rate of water consumption; data are synthesized for an organization making policy recommendations; students discover the ‘true footprint of fracking’. Day by day, they help inform a more positive energy future.

Their work — and the work of many other organizations — has documented widespread impacts from the oil and gas industry wherever it operates. In Pennsylvania, hundreds of cases of well water being compromised from methane migration or other contaminants. Across the U.S., several studies have shown health problems associated with exposure to air pollutants at drilling sites. Well pad construction, pipeline installation, and sand mining (for frac sand) has resulted in the destruction of thousands of acres of forest and wildlife habitat. Communities suffer from heavy truck traffic and the associated problems: increased accidents, road damage, and diesel emissions.

While promoted as a bridge or transition fuel, the climate risks from natural gas development are perhaps the ultimate impact. Methane escaping into the atmosphere is a potent greenhouse gas and the immense volume of oil, natural gas, and other hydrocarbons — cumulatively produced from the fracking boom may accelerate global dependence on these fuels and reduce investments in renewable energy. The supposed bridge may lead nowhere.

FracTracker has been documenting the grassroots energy that is questioning the rush to drill. In New York, they have mapped 86 local movements against drilling, 96 moratoriums that have passed, but not yet gone to full bans, and 85 bans in place. Those maps were referenced by New York’s DEC Commissioner at a recent press conference where New York Governor Andrew Cuomo announced a statewide ban on high-volume hydraulic fracturing. But even in New York, victory may only be temporary. Advocates there are addressing large pipeline proposals and even a plan to store compressed natural gas in abandoned salt caverns beneath one of the famed Finger Lakes. Until the planet gets a respite from warming, communities liberated from threats to air and water, and nature conserved more than marred, FracTracker — and its many partners — have endless work to do.
From Pennsylvania to Zielony Żurawlów: People and Shale

Barbara Siegieńczuk and Ewa Sufin-Jacquemart

Barbara Siegieńczuk: I was amazed to see some of the infrastructure so close to houses. It is possible in Pennsylvania. If the ground close to someone’s house has been leased by the neighbours, the owners of such a house have nothing to say. The neighbours, the owners of such a house, have nothing to say. The company can be very persuasive. The company can be very persuasive.

E. S.-J.: That was a very important meeting for me, too. He knows shale gas extraction technologies very well, because he participated in its development and has been researching their consequences for years. He has broad knowledge, but also thinks about the future of the planet and the human race, the faith of the future generations and not just about present-day economic growth. He told us three important things:

First, we have to watch out, because people, when discussing the consequences of fracking, think about the whole process of shale gas extraction and distribution – consequences of thousands of bore-holes and building of the whole infrastructure needed for the transport of the gas. The extractive industry denies the charges, limiting itself to talking just about the fracking operation. The same is in Poland, so that is important advice.

Second – the argument that under good regulations the industry will have low harm for people and the environment is invalid. Practice proves that there are no such regulations and no way of stopping them to practice that can guarantee ecological safety and social profits even in the short term – not to mention the long one.

Finally – the most important part of the professor’s speech in my opinion – the technology currently used is highly inefficient, as it allows to extract just 5 to 10% of the gas or oil from the ground, but if the ground is depleted, a deposit cannot be reused. Unconventional hydraulic fracturing is the last generation of fossil fuels known to humankind. Burning them for heating or electric output represention is irresponsible, as it accelerates climate change that is a threat to life on Earth – and we can use energy from wind and the Sun. Fossil fuels should be treated as a resource of the highest importance and used just to produce necessary materials and substances that we cannot produce without them, such as medicines, fertilizers or some important composites. The resources poured into the development of shale gas should be redirected for research and development of methods of saving energy and renewables.

And what about shale gas in Poland? Maybe there is some hope for us. After the official statements, there are recording losses thanks to low cost of gas on their market, are already considering how to produce and exporting it to Europe where it is more expensive.

B. S.: Until the trip to the US I had such a positive image of the local inhabitants who shared their suffering with me: an agricultural, to urban respondents. Since that trip, I know that Shell has been transformed into a mining, industrial region with lots of road construction and drilling, conflicts in the local community, devastated democracy, arrogant companies, corrupting the local authorities, building our energy security on such pillars is unsustainable. What sort of security is it – we change dependence on Russia for dependence on the US? What will we do if the day after tomorrow sun, wind, thermal power, even gas, may not be available in the countryside, which is produced by the farmers with so much effort, and people may not be able to work, or the children may not be able to study clearly today.

Ewa Sufin-Jacquemart: I hope to see new developments in Poland, and that they are not just illusions, but they are based on hard facts. I hope that the so-called ‘pads’ – squares with bore-holes in the woods near Wil- liamson, which are used by the organisations are to be closed. B. S.: It was a depressing site to see. Hundreds of trees were cut down in private and quiet. She lives in a beautiful house, which could overcome internal divisions and put pressure on the local authorities. Possible one of the neighbour- The so-called ‘pads’ – squares with bore-holes in the woods near Wil- liamson, which are used by the organisations are to be closed. B. S.: It was a depressing site to see. Hundreds of trees were cut down in private and quiet. She lives in a beautiful house, which could overcome internal divisions and put pressure on the local authorities. Possible one of the neighbour-
We heard the same story in the Pennsylvania State House. Gas is cheaper and better for the environment than oil and coal, the owners of land are making money from the extraction and only new jobs are being created. Sadly the state itself does not benefit from this boom thanks to the level of taxation is low – just 5% of profits from the production goes to the state. Governmental and environmental standards are still the highest possible. Some believe that turning away from shale gas and nuclear as energy sources is out of the question. However, the companies argue that there is no coherent policies, just a few rules which means cutting hundreds of thousands of dollars from upstream look just like a previously calm neighbour zone of the binding spatial plan banning drilling in the park. The extractive industry was put forward to us by the members of various branches of independent oil companies focusing on its extraction. It is supposed to be the best alternative to coal – cheap and safe. 85% of the water used for fracking is being recycled, and the usage of sand is not considered as a problem because the country has its deserts and its transport creates good opportunities for development of various branches of industry. A lot of states are having the same good economic situation thanks to fracking (Pennsylvania being an example), poor farmers are now millionaires and the environmental standards are still the highest possible. Since the companies believe that turning away from shale gas and nuclear as energy sources is out of the question, they are concerned about the size of the industry. The companies argue that there is no coherent policies, just a few rules which means cutting hundreds of thousands of dollars from upstream look just like a previously calm neighbour zone of the binding spatial plan banning drilling in the park.

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Local culture and lifestyle completely collapsed. The workers of the extractive industry come mainly from other states – these are 2 thousand men that are far away from their families. Their arrival to a previously calm neighbourhood resulted in the expansion of the prostitution, real estate, crime and drug trade. An epidemic of heroin addiction on a large scale broke out – in a small town of Williamsport it resulted in 14 deaths by overdose last year alone.

It’s like a tsunami!” Barbara said to us.

I think it is the best definition of the shale gas boom.

The daily existence of the inhabitants became a nightmare. They often invested the work of their whole life (or even a few generations!) in buying houses in what earlier was a beautiful region, while most of the owners of the neighbouring land that they lend for extraction live in cities or even other states. For them it is highly beneficial, as after assessing the potential of the Marcellus Shale the prices of land went over the roof, while the prices of housing in the region plummeted. Even if someone would be interested in buying them up, the banks do not want to give credit for such a transaction.

But the local inhabitants do not give up. Jenny from the Responsible Unity Alliance succeeded in banning drilling in the park where she lives. 7 days before getting permission for drilling there was a big protest and 4 thousand signatures were gathered. The permission was not given to the company. Next year drilling will start just near the forest – close, but not in the park itself. The problem is that horizontal fracking will be going in that direction.

One of the problems is the attitude of local politicians – most of them are now millionaires thanks to the Marcellus Shale. Corruption is on the rise.

On February 13th 2012 Pennsylvania villagers voted for the so-called ACT 13 – regulations regarding shale gas extraction in the state. 7 cities decided to question these rules, stating that “fracking, waste pools and pipelines must be allowed in each zone of the fracking spatial plan including housing sites – if buffer zones will be maintained”. Citizens and local communities decided to appeal the laws which forbid the doctors from telling patients about the influence of the chemicals used in the fracking process on their health.

The Supreme Court of Pennsylvania ruled that some of the key parts of ACT 13, that were fundamentally incompatible with the wishes of the citizens of the state were also inconsistent with the constitution of Pennsylvania and the Environmental Rights Amendment that guarantees them “the right to clean air, clean water and the preservation of natural, spatial, historical and esthetic values of the natural environment”. This paves the way for a successful fight against fracking with local legislation.
It was a science that stopped fracking in New York

Dr Sandra Steininger

Fragment of remarks from Sandra Steininger’s, Ph.D. speech at the post-rally victory party in Ithaca New York reposted with permission from EcoWatch.com. In 2008 when our moratorium was first declared, the state of knowledge about the risks and harms of fracking was rudimentary. We discovered that fracking was a vast pool of ignorance and unknowing; on the far bank of that pond was what looked to be faint signals of harm. As the years went by, those signals grew stronger. By 2012, when the revised draft Supplemental Generic Environmental Impact Statement (SGEIS) was released, there were about 60 studies in the peer-reviewed literature. But exponential growth is an amazing phenomenon.

Two years later, when the NYS Department of Health released its final public health review of fracking, the number of studies in the peer-reviewed scientific literature had exceeded 400. All together, these studies show that fracking poisons the air (especially with benzene and contaminates water. They show that old wells leak. They show that cement is not an immortal substance and cannot always create, for all time, a perfect gasket that seals off the fracked zone from everything above the ground.

The studies show that methane leaks from drilling and fracking operations in prodigious amounts and so poses serious threats to our climate. And they show evidence for possible health impacts, including to pregnant women and infants.

Those initial faint glimmers of danger turned into the warning beacon of a lighting strike. The conclusions reached by the New York State Department of Health—that fracking has not been demonstrated to be safe as currently practiced and that there is no guarantee that any regulatory framework can make it safe—are echoed in literature reviews conducted by other scientific shops. These include a compendium of findings compiled by my own group, Concerned Health Professionals of New York, a statistical analysis by Physicians, Scientists and Engineers for Health Energy, and a major report from Canadian province of Ontario.

Four independent teams of public health scientists looked at the data and came to the same conclusion: there are known and unknown risks of harm for public health and the environment, none of which public health depends. But, let’s be clear. Science alone did not stop fracking. The scientific community, led by the New York Senate Majority, worked hard to build a well-informed citizen movement that took the scientific evidence to the media, to the Department of Environmental Conservation, and to elected officials, including the Governor himself.

It was the people who spoke scientific truth to power. You all accomplished in that campaign.

First, you issued invitations to scientists to come into your communities—into your church basements, town hall and high school gymnasiums, chambers of commerce, and town hall meetings. This carried on for more than five years—all of us PhDs and MDs and scientists and moving water and air.

Exponential growth is an amazing phenomenon.

Science alone is just a lot of mathematical space. Like a musical score, it is just a lot of notes. It is only when someone picks up the score and sings it. And you sang it! You sang it. And you sang it! You sang it! You sang it!

Science Advisor to Americans for Nuclear Energy, Dr. Sandra Steininger, P.D., is a biologist, recipient of the Rachel Carson Leadership Award and Environmental Foundation Award for her achievement contributions to environmental science. She writes and lectures on the environmental factors that contribute to reproductive health problems and environmental links to cancer. She is co-founder of New Yorkers Against Frackingand Concerned Health Professionalsof New York, and serves as Science Advisor to Americans Against Fracking. She was arrested several times for civil disobedience against gas storage in the Seneca Lake salt caverns.

Photo: Flickr by CREDO fracking
The United States is expected to become one of the world biggest oil producer of the world. The shale gas bonanza not only provides the country with cheaper fuel, but also helps the US in boosting the US economy. Domestic shale oil and gas production also relies less dependent from foreign sources of fuel like the Middle East or Venezuela. Most spots of shale oil and gas production are states like Pennsylvania, Dakota and Texas. 

So it is no surprise that the Obama Administration embraces shale gas with some enthusiasm. When it comes to fossil fuels, burning gas promises to be a relatively clean source of energy and now even a very cheap one.

The US, however, also lacks a comprehensive energy strategy. The programmatic approach of “All of the above”, pleases to lead the US to make the best decision on which source of energy to use. President Obama, however, insisted in 2012 that when it comes to CO2 emissions. The Obama administration believes that increased shale gas development will help reduce greenhouse gas emissions. In 2012, US carbon dioxide emissions dropped to a 20-year low. Human and public health – so goes the argument- will both benefit from shale gas by displacing coal burning.

Shale Gas Innovation

Shale gas production is not a new invention. Shale gas was first extracted as a resource in Fredonia, New York, in 1821, but that technology was low-pressure fractures. Horizontal drilling began in the 1900s. U.S. Mitchell Oil & Gas, for example, first economic shale fracture in 1998 using slick-water fracturing. From there the boom expanded over the course of the last twenty years. Recent technological developments and the risk of the price of conventional oil and gas let to the boom we can now see happening in the US.

Shale Gas and the Climate

The extraction and use of shale gas, however, can affect the environment through the leaking of extraction chemicals and waste into water supplies, the leaking of greenhouse gases (methane and other hydrocarbons), and the pollution caused by the improper processing of natural gas. A chief factor preventing pollution is that shale gas extractions vary widely in this regard, even between different wells in the same formation. Among the processes that reduction pollution sufficiently in one extraction may not be effective in another.

In late 2010, the U.S. Environmental Protection Agency (EPA) issued a new report, the first update on emission factors for greenhouse gas emissions by the oil and gas industry by the EPA since 1996. In this new report, the EPA concluded that

Transatlantic dialogue on shale gas

The Heinrich Böll Foundation (hbs) as a green-political dialogue forum deemed a nurtured transatlantic dialogue on all complex aspects concerning fracking of shale gas as crucial for an informed debate on the side. In October 2014, the hbs-offices in Warsaw and Washington, therefore, organized a study tour to the US to offer Polish energy policy experts, activists and journalists profound insights into the issues beyond global warming politics. The authors believe that shale gas will expand worldwide. China is estimated to have the world’s largest shale gas reserves. Also many European countries look into their large scale in the US, too. It is known about the impacts of the industry on public health, the environmental and the climate. The availability of this unconventional gas in the future also will be connected with many published studies for other regions. That shell gas in the United States have a global warming potential “broadly similar” to that of conventional natural gas. Still, shale gas has the potential to be used as a feedstock for many things, such as natural gas, methanol, and other products.

Shale gas fracturing provides the US with a cheap source of energy and may make the country less dependent from foreign sources of fuel. So industry and the security community are eager to support the shale gas industry. Though shale gas fracking provides a large scale in the US, too. It is known about the impacts of the industry on public health, the environmental and the climate. The availability of this unconventional gas in the future also will be connected with many published studies for other regions. That shell gas in the United States have a global warming potential “broadly similar” to that of conventional natural gas. Still, shale gas has the potential to be used as a feedstock for many things, such as natural gas, methanol, and other products.

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The benefits and perils of shale gas provide the opportunity to look across country to country. Europeans therefore carefully should study the experiences with this fossil fuel. Many US states happily embrace this technology. States like New York and Maryland decided to put their scientific energy and economic resources in. Europeans especially should give up subsidizing fossil fuel industries. Given the enormous success of the German energy transition, some leaders consider shale gas to be a potential new source of energy. The Climates Network fosters a transatlantic dialogue through measures including public speaking and study tours, roundtable discussions, faith-based discourses, and educational activities that create sustainable jobs, strengthen local economies and helps to fight climate change.

Revitalizing Transatlantic Relations for a Green Economy

Both Europe and the US states can point to regional success stories in the face of the carbon growth. The Transatlantic Energy and Climate Network of the Heinrich Böll Foundation brings together opinion leaders, legislators, and policy experts from both sides of the Atlantic that are committed to achieving policy change in support for a low carbon economy agenda. We have seen that recent developments prove also from an employment point of view as well. New York State has recently announced to boost the US economy. Do we know by now? The benefits and perils of shale gas provide the opportunity to look across country to country. Europeans therefore carefully should study the experiences with this fossil fuel. Many US states happily embrace this technology. States like New York and Maryland decided to put their scientific energy and economic resources in. Europeans especially should give up subsidizing fossil fuel industries. Given the enormous success of the German energy transition, some leaders consider shale gas to be a potential new source of energy.
Three questions to scientists

Dr Seth B. Shonkoff and Jake Hays from PSE Healthy Energy responded to the three questions of Zielen Wiadomosci.

Zielen Wiadomosci: In Poland coal is the principal source of energy. Natural gas is touted for its potential to reduce GHG emissions by edging out coal as an electricity or heating source. Should shale gas be a bridge to clean energy in Poland?

Dr Seth B. Shonkoff

- The notion that natural gas produced from shale is a bridge to clean energy future is no longer viable. This was propelled by the industry and accepted by some of the large environmental nonprofit organizations early on. However, it was based solely on the fact that natural gas burns cleaner than coal, ignoring the broader lifecycle climate implications of the overall development processes (e.g., production, transmission, etc.). Research on the lifecycle greenhouse gas emissions of shale gas development only began to surface in 2011. Since then the idea of shale gas as a bridge to clean energy has been increasingly called into question.

Natural gas is comprised mostly of methane, a potent greenhouse gas that is leaked and vented into the atmosphere during many stages of production and transmission. According to the current scientific consensus from the latest IPCC report (AR5), methane is 34 times as potent as carbon dioxide over a 100-year timeframe and 86 times as potent over a 20-year timeframe. Not only is methane more potent than scientists initially thought, but most research suggests that far more of it is escaping into the atmosphere from oil and gas production.

A notable exception to this research comes from a study funded and supported by the Environmental Defense Fund and a number of oil and gas companies (Allen et al. 2013). In fact, the study suggests that methane emissions are actually lower than previous U.S. EPA estimates. It estimates that upstream (at the well site) methane emissions from the natural gas industry amount to just 0.45% of gross annual production. Of course, the principal source of production is the natural gas industry itself.

That said, methane emissions from shale gas production are still alarming – a process that is less than 30 years old. There is concern that some of the other aspects of development that take place close to the well, including water handling, infrastructure, surface spills, wastewater disposal, and well casing failure and cutting strategy, may lead to a development process that presents a greater likelihood of environmental and public health risks.

Now, when we talk about regulations and legislative restrictions, we can only do so in the context of mitigation. No amount of regulation will completely eliminate methane emissions associated with this industry or make it safe for employees, local residents, and the community, thereby not just about making it safer, only about making it safer. Of course, the only way to make it free from externalities and the question becomes what level of environmental and public health risk a society is willing to accept.

To the extent that shale gas is being developed, regulations should be adequate and permits should only be issued if there is a high degree of inspection capability. Unfortunately, there is no indication in the current scientific review of sufficient measures have been taken to ensure that this is the case. For the industry to have this to do with the capability of regulation being effective, the workers must be staffed, undertrained, and unable to respond to the rapid growth and complexity of this industry. The other reason is that there are some inherent risks to shale gas development that no amount of regulation or legislative restriction will adequately remedy, such as hydraulic fracturing or the release of toxic materials into the environment.

Regardless, there are a few basic guidelines that should be followed for shale gas development. Some of these guidelines are in the process of being developed as part of the scientific community.

ZW: Shale gas is extracted using a controversial method of hydraulic fracturing or “fracking.” You know well this technology and this industry. What kind of legislative restrictions must be considered so that mining be safe for employees, local residents and the climate?

First, we must be clear on the terminology. As you correctly identify, “fracking” is short for hydraulic fracturing, which is a method of well stimulation that has been used by the industry for decades (since the 1940s). However, relatively recently has fracking been used alongside other technologies (e.g., horizontal drilling) to extract natural gas from shale and other unconventional formations on a commercial scale. It is the hydraulic fracturing or fracking of shale formations that is problematic, not fracking per se. The public often uses the term fracking colloquially as an umbrella term to refer to the entirety of shale gas development. However, fracking technically only refers to one part of the process of developing natural gas from shale – a process that is less than 30 years old. There is concern that some of the other aspects of development that take place close to the well, including water handling, infrastructure, surface spills, wastewater disposal, and well casing failure and cutting strategy, may lead to a development process that presents a greater likelihood of environmental and public health risks.

ZW: Governor Andrew Cuomo recently announced a ban on fracking in New York State. There was big pressure on Gov. Andrew Cuomo to ban fracking.

Seth B. Shonkoff

- We have scientists contributed to this final decision?

The decision in New York was ultimately based on the New York Department of Environmental Health (NYS DOH) review of the scientific environmental health literature on shale gas development. The NYS DOH report cites significant information gaps and increasingly clear cumulative risks to human health as the reason for the recommendation to prohibit shale gas development in the state of New York. From the very beginning Governor Andrew Cuomo made it clear that he would let science, not politics, guide his decision on whether or not to enable shale gas development in the state of New York. Fortunatenly, the Governor stayed true to his word and was able to arrive at a policy decision on shale gas that was based on the weight of the scientific evidence.

Scientists contributed significantly to this final decision not only in the research they conducted, but also in the ways in which they placed this research in front of policymakers and in the hands of the general public. What makes our organization (PSE Healthy Energy) unique is that we take the science one step further than most university or research lab and put it precisely where it can actually affect energy policy. Science should not exist in a vacuum and we believe that scientists have a duty and responsibility to communicate findings to both the general public and policymakers, especially on interaction between the climate and human health dimensions of shorter-term climate forcing emissions (i.e., methane, nitrous oxide, carbon, sulphate particles, etc.) and on the development of more effective anthropogenic climate change mitigation policies that generate socioeconomically and health beneficial policies.

Jake Hays

- What makes our organization unique?

Scientists contributed significantly to this final decision not only in the research they conducted, but also in the ways in which they placed this research in front of policymakers and in the hands of the general public. What makes our organization (PSE Healthy Energy) unique is that we take the science one step further than most universities or research labs. We believe that scientists have a duty and responsibility to communicate findings to both the general public and policymakers, especially on interaction between the climate and human health dimensions of shorter-term climate forcing emissions (i.e., methane, nitrous oxide, carbon, sulphate particles, etc.) and on the development of more effective anthropogenic climate change mitigation policies that generate socioeconomically and health beneficial policies.
FRACKING?
No, thanks! It’s too risky.

Ewa Sufin-Jacquemart

Reflections after the Marcellus Shale study tour, organized by Heinrich Bill Foundation’s offices Warsaw and Washington.

The industrial revolution and constant economic growth based on burning fossil fuels degrade our world, causing climate change that threatens life on Earth, triggering mass extinctions and depleting natural resources. If we look closely at the shale gas sector, which has been growing for over a decade now, we will see, in a nutshell, all those threats, and more...

Let’s make no mistake about it—the exploration and extraction of shale gas and oil (but also tight gas extracted from sandstone) is nothing like the extraction of conventional natural gas. It is not about pumping gas contained in rock caverns to the surface, but consists in the extraction of micronicoporous gas bubbles trapped in the rock, that has to be crushed under-ground. Drilling is initially done vertically and then horizontally, spreading in several directions for a few kilometres. When the initial point of the next stage is to “stimulate”, i.e. crack the deposit, by pumping under-ground at high pressure huge amounts of fracturing fluid consisting of water, sand and a mixture of chemicals. The fracturing fluid then rises gas or oil from the crushed rock (with which it can enter into unforeseeable chemical reactions), and some amount of it is left underground. There is no way to predict today what consequences that may have in the future.

When our generation has long used up the extracted gas, the next generations will have to deal with the release of methane and toxic substances from the ground.

The recovered part of the fracturing fluid (between 20% and 40% of the initial volume) returns to the surface along with the extracted gas—it is highly toxic waste and needs to be disposed of. Approximately 3% to 8% of the extracted gas escapes into the atmosphere along with chemical vapours, causing air pollution. Human errors, technical failures (in particular during the well cementing phases), the inability to fully control the underground fracturing processes and difficulties with the disposal and utilization of the huge quantities of waste and wastewaters, too often result in contamination of soil, surface water or groundwater.

Constant growth – more and more, and faster and faster...

Shale gas extraction is an excellent illustration of the disease of our time, which is the hegemony of supply-side economics and the imperative of constant economic growth—we consume more every day and at faster rates, using more resources and creating even more waste and pollution. For the extraction of shale gas requires growing numbers of drills to exploit profitably the whole deposit. In a competitive free market economy, where there’s no long-term management of valuable resources and where everything that is produced is marketed immediately, a rapid increase in the supply of gas leads to a decline of its price. The production of gas from each drill is high in the first year or two, fracturing processes decrease and remains at a low level for the rest of the process. Therefore, to maintain a high level of production and income, the new drills have to be made at an increasing rate which grows as the market prices of gas go down. The more drills there are, the more shale gas ends up in the market and therefore the lower the price, which in turn leads to more drills.

In Poland, shale gas deposits co-exist with valuable natural resource—ful forest and agro-tourism region UNESCO reserve a couple of years ago, which should be granted UNESCO biosphere reserve status this year, would be the initiative to make Roztocze a UNESCO reserve a couple of years ago, and today the very same Ministry wants to transform the beautiful forest and agro-tourism region into a shale gas mining area.

Water, Earth’s most valuable natural resource

We all know that water is the most essential element for life on Earth. In order to be suitable for consumption and not cause serious diseases, water must be clean.

Large-scale extraction of shale gas poses a threat to water resources, because a single hydraulic fracturing procedure uses up approx. 20 thousand, cubic metres of water, which in Poland would mean 1000 tank trucks. And the bedrock needs to be stimulated many times using a mixture of water, sand and various chemicals. The chemicals account for 0.5% to 2.5% of the fracturing liquid volume, but since they contain 10% of hazardous substances, i.e. those that are toxic, and pollute the air.

Huge amounts of water are used in the regions where shale gas is produced. In front of every mining field that we’ve seen in Pennsylvania there was an information board that provided the amount of water the hydraulic fracturing procedure used.
water needed for fracturing and how much water could be collected from the environment. The amounts ranged from 1.8 to 4.5 million gallons per day. To reduce the risk of water contamination, new underground water pipelines, artificial lakes, and metal reservoirs built exclusively to serve the needs of the mining industry. The process of shale gas extraction is so invasive that reserves get contaminated. In Pennsylvania, there were 234 known cases of water pollution in 2014, as the representative of the Department of the Environment, Mr. Kurt Klipakowski, informed at a press conference. At official conferences are regularly told by the ubiquitous “shale geology” of the shale gas. The contamination does occur, there have been multiple cases of it and they have been widely communicated to the public. People who live close to the drilling wells sometimes detect the smell of hydrocarbons in their tap water. Rivers, streams, ponds and lakes also get contaminated, along with the fish and other creatures that live in them.

Despite that, in Poland exploratory drilling permits are issued even for areas where the so-called Major Groundwater Reservoirs (GZWP) are situated in between the drilling wells and the gas deposits. This problem concerns even huge reservoirs of exceptionally pure water, such as the GZWP No. 807 which is considered to be protected, but still isn’t. Meanwhile, just drilling through the reservoir contaminates the water, because of the drilling fluid chemicals has to come into contact with it. The drilling well subsequently gets encased with cement and piped on the groundwater level. However, as pointed out by Ron Karr, the head of FracTracker Alliance (Fundacja Strefa Zieleni) and the coordinator of the Green Zone Foundation (Fundacja Strefa Zieleni) and the coordinator of the Green Zone Foundation (Fundacja Strefa Zieleni), we have to agree on it together,” he said. We also learned that an independent inspector hired by the main investor PGE (Pennsylvania General Electric) (Pennsylvania General Electric) has been there on the drilling site to monitor the drilling process together with an expert from PGE.

Drilling and cementing is a sensitive activity, the conditions vary every day and it’s easy to make a mistake.

According to a report prepared by the Association of Independent Mining Companies, the amount of drilling wells does not stand the test of time, and if the accidents occurred on the construction of the drilling as a result of cement work failures account for only about 5% of all incidents. According to Karr, about 15% of the proportion of well leaking increases with approx. 60% due to pipe corrosion and cement aging. No one can say today how vast the long-term damage caused by the leaking well will be and how much it will cost to undo the damage. Already today it happens that depleted gas fields get abandoned due to the declining gas prices and the resulting very low profitability, which means bankruptcy for small businesses. In Pennsylvania, the authorities unilaterally support the shale gas business despite the fact that the environmental degradation caused by decades of coal mining still hasn’t been overcome.

A threat to democracy

All of that happens at the expense of local communities and residents. In the US, where the owner of the land also owns the minerals embedded in it, it was easy to find residents willing to lease their land to mining companies in exchange for high rents and a share of profits from gas production. For a professional negotiator, it is not difficult to convince and win over the landowners, and in the US only very few of them, those who were the best informed, were able to resist. Contracts are formulated in such a way that the money-making parties cannot terminate them, which is why conflicts within communities and even within families are a regular occurrence. Add to this the risk of corruption, conflicts of interest, bought media and local and state authorities who are under the pressure of Big Oil. As a local anti-shale activist from New York State told us: “Fracking business killed off democracy in America in just one decade”.

In Poland, despite the lack of open public debate and widespread manipulation of information (e.g., workshops and training sessions funded by the national environmental and water management fund, represent shale gas as a “renewable energy”), so far we have managed to avoid acts of violence against, and arrests of the people who opposse the shale gas industry.

However, the attack on democracy is on the rise because - as the foreign shale gas investors are withdrawing from Poland - the Polish government has decided to unlawfully redact the red carpet in front of investors from the entire hydrocarbon mining business at the expense of its own citizens. To this end, the Minister of Treasury has drafted a special hydrocarbons bill which is expected to be submitted to the Parliament in the first quarter of 2015.

The “special hydrocarbons bill” exempts exploration, extraction and transportation of hydrocarbons from most of the existing regulations and fundamentally squandering the basic achievement of democracy.

It gives full control to the government and its provincial governors (regional representatives of the state), while taking away the right to speak from citizens, local authorities and even state institutions and bodies. If the bill is voted into law, drilling will become legal practically everywhere, the permit procedures will be shortened to such an extent that environmental impact assessments will no longer be required, public consultations will no longer be held and environmental organizations will lose the right to participate in administrative proceedings. The Minister of Health will lose the right to protect gas workers against the expansion of the shale gas mining industry, national park directors will have no say about plans to drill in their parks, the same will happen to the State Directorate of Forestry and the forests it administers, and to the Heritage Protection Officers and the national heritage sites they are in charge of. One person - decision-making power will be vested in the provincial governors, which runs counter to the principles of democracy and will put the vast areas for corruption, conflict of interest and abuse of power. This bill resembles Pennsylvania’s Article 13, which exempted drilling from spatial management regulations, leading to large numbers of drilling rigs quickly springing up in areas identified in local spatial management plans as natural, agricultural or residential. Despite the fact that the Supreme Court has overturned those regulations, none of the contentious drilling wells have been closed and they continue to generate local conflicts and be the subject of judicial battles fought by local activists.

Because of the fact that Poland imports gas from Russia, the geopolitical situation, the Russian-Ukrainian conflict and the historical aversion to Russia are being used to promote shale gas production. In an effort to discredit the anti-shale movement, activists are accused of being supported by Russia and Gazprom, an argument that has never been substantiated. Strangely enough, those advocating the development of highways and the automotive industry are never labelled “traitors of the national interest”, even though Poland imports 95% of its oil from Russia, much more than of gas, and oil accounts for 25% of total energy consumption, much more than gas.

In the United States, activists and common sense prevail in some states thanks to the huge mobilization of citizens and local governments, in December 2014 the governor of the State of New York Andrew Cuomo completely banned fracking (the ban replaced a moratorium that had been in place for two years).

Conclusion: we need “energy round-table” and a moratorium

Governor Cuomo’s ruling was based on two premises: firstly, that there is no demonstration of regulations and the systems of control of shale gas production that would ensure the safety of people and the environment (an argument made in about 400 research reports that have reached decision-makers thanks to good cooperation between researchers and activists), and secondly, that the technology involves potential climate hazards.

Professor Ingraffea argues that in order to save future generations from a climate catastrophe, we should abandon fossil fuels as soon as possible, make a transition to a low-energy and low-carbon economy, and use the money that today is being spent on the extraction of hydrocarbons on research and development of low-energy buildings and renewable energy.

It seems that people in Poland are starting to understand this too. The survey shows that 70% of Poles support renewable energy, and only less than 20% see a future for fossil fuels. That is why we need a real round-table energy debate that would bring together the authorities, experts, trade unions, local governments as well as social and environmental organizations. What we need is an open and honest public debate about energy, including the extraction of shale gas and other unconventional hydrocarbons. Perhaps such a debate would lead to a ban of hydraulic fracturing, like it did in the State of New York.

We should all sign the petition calling for a moratorium on the exploration and extraction of shale gas in Poland until reliable public consultations have taken place: https://obsluzeteka. kontroluja.pl/przylacz-sie/podpis-przez-tak-sie

Ewa Sufin-Jacquemart is director of the Green Zone Foundation (Fundacja Strefa Zieleni) and the Green Party activist, involved in issues of ecology, energy and climate. She leads the Green Centre for Women’s Congress.

Photoreport: Barbara Sujeckiczuk
Cliff Weathers: Do you ever feel like they're putting a target on your back?

JF: For the last four or five years, it’s not just me but everyone in the films—the science experts, those dedicated to getting the truth out... It’s been a constant struggle for people who have suffered unbelievable amounts of attacks, both of the most nefarious and deceptive kind, as well as just the normal criticisms as you might have with any kind of new information. But what’s most disturbing is the persistent smear and misinformation machine that’s out there after people in the films and myself, and everything that has to do with the fracking lobby and characters damaging to our civic dialogue in the United States.

Today, we just assume that there are going to be corporations that attack information and lie to protect their interests, and they’ll do it in the most devious and blatant fashion. It’s become part of American life. The so-called debate on issues like one side that is just lying. That’s not a debate; deception is not a point of view.

When I started working on the film, it was already a very contentious and controversial issue in my area. So, in the Upper Delaware River Basin, there were a lot of people who wanted to lease their land to make money off of this. And it was surprising how quickly that broke down along certain cultural lines, and it exacerbated political tensions that were there for a long time. So, I became the face of people who were trying to preserve the beauty and integrity of the environment and the health of the community. There were a lot of people who wanted their money and who were willing to put their neighbors in jeopardy and put all of us in harm’s way, and really destroy what is one of the most astoundingly beautiful areas of the world (the Delaware River Basin), which is also the watershed area for New York City, Philadelphia and Southern New Jersey.

So from the very beginning, I knew it was going to be tough to put together the kitchen. But I could never anticipate the deviousness, the bald-faced lying and character attacks. Every single type of bizarre attack was waged against me, and against the person, and against the people in the film. It’s a constant pressure.

There are people who will go to restaurants to tape things and do things with hidden cameras. And I don’t see how you could ever campaign for a point of view when you get that kind of attention. It’s all designed to create confusion and doubt with the mainstream audience. It creates a cloud of doubt around the real reporting, so that people don’t really know what to believe or who to trust. Our work is profoundly researched and verified by as many sources as you can possibly imagine. Every line in those movies has been vetted not only by our staff, which is very fastidious about accuracy in our reporting, but also by HBO who wouldn’t put it on if it had a line that was untrue.

CW: One of the people in Ga- sland, Part II was a man who left the Republican Party over his disgust with hydrofracking. To the casual observer, this is a partisan issue, but that’s not the case with the people you’ve met. How do you think fracking changes people who are directly affected by it?

JF: It’s created an enormous amount of division between people who wouldn’t ordinarily speak to each other because of their political divides. It’s not a partisan issue. I tour constantly with the films to talk to environmental organizations. And when the fossil-fuel industry comes to these towns and then it’s “we all have to buy into everything you have,” that is the equalizer. People come together pretty quickly and there are conversations between people who are social conservatives and people who are progressive Democrats. And then you realize that these are not American companies, but multinationals that have no country, and no allegiance. And they will destroy a place whether it’s Pennsylvania, Texas, or even in Nigeria, or even in Peru. You realize that there’s always been a group of people who are “expendable” in the face of business. Whether they were massacred by the National Guard striking at coal mine in Colorado a hundred years ago or today in the Niger Delta, or in West Virginia where mountains are being exploded and right now, in the target zone are people who live in the Marcellus Shale, the Barnett Shale, or the Haynsville Shale. The fossil-fuel industry is always considering these people to just be in the ir way. They have no rights and they have no way of appealing through the normal democratic channels.

So, now that area of expen- dability has expanded and it catches all sorts of folks in its wake. So, their reaction to be- ing subjugated by such a huge industry is going to be similar, I think, whether you’re a liber- al, Democrat, or a conservative or Tea Party person. The divide that often happens between peo- ple is one of money. Some people really want the money and some people don’t.

A favorite thing I like to bring up is this recent Princeton Un- iversity study that asked “What form of rule does America re- ally have?” They did all the re- search... And their political science department on all these popular issues and they polled and they figured it out, and they came back with the answer.... Oh, America doesn’t have a de- mocacy actually, America has an oligarchy; ruled by the rich and powerful.

When we’re talking about what’s happening in America today, I’m watching an incredible mo- vement against fracking. I’m watching people being extra- ordinarily attentive to histo- ry. They’re saying that we need to have all the things like those films, events, and protests. We need to birddog our legislators. Recently, 300 people decided to greet President Obama at Co- openworth with anti-fracking si- gns. On the same day, a couple hundred people decided to gre- et Governor [Andrew] Cuomo in Long Island with anti-frack- ing signs. This is going on per- petually. I’m watching this and I’m thinking, it almost makes me feel like democracy is an ir- repressible force. It’s bouding back at the grassroots and local levels and it’s very exciting.

CW: I was watching the origi- nal Gasland recently, and then I watched Gasland, Part II. And I noticed that the message of Gas- sland is so dated by comparison. There have been so many deve- lopments since. When Gasland was released, this was a subject people didn’t know about and the message was really simple and straightforward. The se- cond movie took it to another level of sophistication.

JF: I feel that way, too. I didn’t know about fracking when I made the first Gasland, it really was about my journey of dis- covery. And I think everyone who watches the film goes through that same process. I think that’s why it was so successful be- cause it told that story. But now everyone knows about fracking. And the question of the second film is that now that everyone knows about it, and there’s a movement out there, we want to know what’s the government going to do about it. So the se- cond film is an inquiry into why the government get frac- ked. When I go to Washington, DC, I like to point out that it is the largest fracking site in the United States. The government is being destroyed with an in- jection of high-pressure money, and that’s completely fracturing our democracy.

CW: So, what’s the next film about?

JF: I’m making another film, this one about climate. In fact, this is not a question only of emissions, pollutants and toxins, this is a question of the structures and we are not fighting just industrial corporations, we are talking abo- ut more fundamental questions of governance. How do we do that? Well, we have to know what’s happening and having common values. It’s both a private property and individual rights question as it is a communal, public property and greater humans right ques- tion. It really shows the depth of this idea of the social contract.

CW: You’ve become the vo- ice of the anti-fracking move- ment. Is this movie also a way for you to broaden your appe- al or horizons?

JF: I think it’s a natural progres- sion. We’re talking about fossil fuels. Before I did any of this, I made plays and movies, and I’ll continue to make plays and movies, narrative as well as doc- umentaries. So, this movie is an important next chapter in this environmental work. But I’m also on screenings all over the world right now that has to do with the Iraq war; it’s in its final stages.

I find these discussions so inter- connected between fracking and climate that they almost don’t seem like separate issu- es to me. I just think fracking is the way that people understand this in a very immediate sense. 15 million Americans live with a mile of a fracking well, and that’s just the beginning of what they want to do. So, it is the manifestation of this extre- me drilling campaign across the world, which will push us over the edge into a completely inhospitable planet. So, to me, they’re fundamentally connected.
Lech Kowalski: I was surprised Chevron did not leave sooner. Several years ago, there were severe doubts about the quality and access to shale gas deposits in Poland and I had a conversation with a German engineer at the ExxonMobil drilling site not far from Zurawlow. He predicted the shale gas situation in Poland was not as rosy as originally predicted by the Americans. I was pleased Chevron left.

Interview of Zielone Wiadomości with Lech Kowalski

Zielone Wiadomości: Chevron has announced that the company is not going to continue shale gas operations in Poland "as the opportunities here no longer compete favorably with other opportunities in Chevron’s global portfolio". How did you find this announcement?

ZW: I was pleased that Chevron was very aware about the shale gas situation in Poland. I was pleased that Chevron wanted to build a test well. We rented a bus for a group of farmers to go to Warsaw and meet with José Bové who I knew in France. This led to the farmers writing a petition that he presented to Tusk. Miraculously Chevron backed off but then went to Zurawlow. I clearly saw that the powers involved with fracking were extremely uncomfortable with having cameras around. Many times I filmed not because I needed the material but because I wanted to help fight Chevron, the media and the politicians who were blind to the dangers they all presented to the farmers and to the land itself. I made three films in the area because I consider the fight in Rogow and Zurawlow as part of a much bigger and very important cause for the preservation of the planet. Films helped get the news out about what was going on in Poland. Having one film play on Arte was a big victory and I know that Chevron was very aware about the films I filmed and the controversy to be shown around the world.

ZW: "Drill Baby Drill" compares two situations: in Zurawlow and in Pennsylvania. Do you think those two regions are comparable and have anything in common?

The two places are not physically similar. Farming is common to both, but Zurawlow is exclusively devoted to farming. The better question is how are the two places different? Pennsylvania is a place where drilling for oil has been going on since 1860. It is the first oil boom area in the United States. People are used to having their land leased for oil exploitation. When the “lease men” signed deals for fracking, people considered it same as leasing for oil exploitation. Now, there are over 15,000 wells and many areas are experiencing a huge variety of problems. Zurawlow has never been zoned as an “industrial zone” or mining area. Pennsylvania is also a big coal mining area and an important state for steel. Bethlehem Steel was the second biggest steel manufacturing company in the United States. Many people in Pennsylvania are happy to have fracking in the state, ignorant of the problems associated with fracking.

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Lech Kowalski, director of Polish origin living in the United States, is a cult figure of underground cinema. Known for his controversial documentary, he was described by some journalist as “a warrior fighting with his camera to redefine the art of the documentary”. He made three films about citizens’ struggles against fracking and mining: Holy Field Holy War, Drill Baby Drill and Frack Democracy. Holy Field Holy War, Drill Baby Drill and Frack Democracy have been shown in over 100 cities and 35 countries. Lech Kowalski has been recognized for his work with the prestigious “Occupy Chevron - 400 days in Zurawlow” prize, awarded in December 2014 in Berlin. Pictures of size 70 x 50 cm are framed in aluminum frames. The exhibition "Occupy Chevron - 400 days in Zurawlow", launched in December 2014 in Berlin. Pictures of size 70 x 50 cm are framed in aluminum frames. The exhibition may have subtitles in any language (Polish, English and French subtitles exist already) and can be easily transported in three wooden boxes. It is available free of charge.

Photo: Andrzej Bąk

Chevron Leaves Poland
A Pity It Took So Long
A comment of the members of the local community in Zurawlow

For nearly three years the inhabitants of Zurawlow and the nearby villages in Grabowiec commune have been involved in conferences and gathered knowledge on shale gas – both in Poland and on the global scale. They made the dark practices of Chevron visible to the public. They also hoped that the company would respect the will of the community, drop its plans for exploiting shale gas on their land and areas of ecological importance. Corporations and governments now see that the right for self-determination needs to be upheld, and that the repressive actions are unsuccessful.

We hope that the arguments of people fighting for their future were heard by those responsible for the protection of water resources, precious farmlands and areas of ecological importance, and that the arguments will be put under consideration in any future decisions regarding mining or fracking.

The official reason for the departure of Chevron from Poland is that its investments in the country do not seem to be profitable. The people fighting for Zurawlow and its future have been talking about such a risk since the very beginning of the protests. They have not been heard – instead they were told they were not experts and that they just “took their concerns and fears from the Internet”.

Zurawlow is a small village in the Lubelskie Voivodeship where the American corporation Chevron wanted to search for shale gas using the controversial method of fracking. After 400 days of persistent, active protests by local inhabitants and eight legal actions of the company against the farmers, Chevron left the village in July 2014.
Dr Stefan Cramer

The year 2014 has been a promising year for the struggle against fracking. More groups than ever woke up to the threat of fracking, culminating close to Christmas 2014 with the decision of New York State to uphold a moratorium on shale gas developments. More states and municipalities in the US are following. The methods too uphold its ban, together with France and Germany. Mexico, Poland and Chi-

Shale Gas – A Challenge for Democracy

Monitoring report

Tereska Adamska

Both global and local politics (also in Poland) have been domina-
ted by the influence of global fuel and energy corporations, connec-
ted with the financial and military complexes. The result is a focus on exploiting the fuel and energy re-
sources and on monopolising the market in these sectors. The corporate activities in Poland are connected with intense lobby-
ing in the both chambers of the parliament, breaking the rules of democracy by corruption or by conflict of interests in both local and national institutions, and the administration. How does the situation regarding shale gas exploration and production look in Poland? If you want to find out, a report “Shale Gas – A Challenge for Democracy” (“Gaz łupkowy – wyzwanie dla demokracji”) has just been publi-
ished recently.

It can be accessed by clicking on the following link:

A paper edition can also be orde-
red via e-mail: biuro@inspro.org.pl or by the phone: (+48) 42 630 17 49

Dr. Stefan Cramer is a semi-retired hydrogeologist currently living in the Karoo of South Africa to educate local communi-
ties about the social and eco-

Emerging farmers in Nieu-Bethesda get ready for action after training in fracking geology by the author
A sudden and extreme spike in neonatal mortality in Utah's rural Uinta Basin is most probably related to the toxic air pollution related to the fossil fuel drilling/fracking frenzy in Eastern Utah and the local poobahs want to kill the messenger.

Donna Young is a midwife in Vernal, Utah, with 20 years experience managing home births in Idaho and Utah. She lives in the Uinta Basin, the heart of the fossil fuel drilling/fracking frenzy in Eastern Utah. On May 6, 2013, she had her first stillbirth. At the funeral service a few days later, she noted what seemed like an extraordinary number of infant graves with recent dates at the cemetery. She decided to investigate.

She didn’t get any help from local authorities, but eventually information gleaned from obituaries and mortuaries revealed 12 cases of neonatal mortality (most of them stillborn, or death shortly after birth), in 2013. Looking back to 2010 revealed a modest upward trend, but then a huge spike in 2013. This is scarcely populated rural Utah. Vernal is a town of fewer than 10,000 people. But per capita, this is a neonatal mortality six times the national average. It is actually worse than it appears. National infant mortality rates have been dropping slowly and steadily for almost 50 years, including about a 10 to 15 percent drop in the last decade. Furthermore, most of Utah is about 50 percent Mormon, so the rate of drinking and smoking is less than the national average throughout the state. The minority population in rural Utah, like Vernal, is very low, and the percentage of Mormons is even higher, both of which should lower the infant mortality rates, all other things being equal.

What is going on in Utah’s Uinta Basin to explain newborn babies dying? An abrupt surge in teenage mothers, drug, alcohol use? No evidence of that. Is there a genetic explanation? Genes don’t change that quickly. Is there a sudden onset of medical incompetence by the area’s health-care providers? No reason to think so. That leaves one other possibility. Is there something happening in the environment? As a matter of fact, yes.

Major cities with pollution problems have either high ozone, like Los Angeles, or high particulate pollution, like Salt Lake City, depending on the time of year. But the Uinta Basin has both simultaneously, making it unique and the most polluted part of the state. Studies suggest that the two may act synergistically to impair human health. Add to that high levels of the by-products of every phase of the oil and gas drilling process - diesel emissions and hazardous compounds like benzene, toluene and naphthalene, and you have a unique toxic air pollution brew in Vernal. Inhaling air pollution has the same systemic health consequences as cigarette smoking, only to a lesser degree - unless you’re doing your inhaling in Beijing, China, then eliminate the “lesser.” The signature physiologic consequence of air pollution, be it from smoke stacks, tail pipes, fracking or cigarettes, is an inflammatory response that reduces blood flow. Diseases of virtually every organ system can follow. Strokes, heart attacks, every type of lung disease, cognitive impairment, cancer, accelerated aging and sudden death, including infant mortality, all occur at higher rates among people exposed to air pollution. In the case of a pregnant mother, the placenta is compromised for the same reason, and it should be easily understood then that pregnancy complications and impaired fetal development - think birth defects, miscarriages and stillbirths - can be the result. Many epidemiologic studies show that to be the case. That increased infant mortality in the Uinta Basin could be the result of the increased air pollution is suggested by medical research. It is not only plausible, but very likely.

But there is more to the story, much more. If you do a Google search for “pollution in Vernal, Utah” you will see a picture of a man at a street corner holding up a sign that says, “Honk if you love drilling.” Vernal politicians certainly do. With jobs, increased tax base, new community recreation centers, bigger store fronts on Main Street, people with money to spend - what’s not to like? Well, dead babies perhaps. What else is not to like? Someone who calls attention to the dead babies - a concerned midwife for example.

Young has been targeted by the community’s power brokers as whistleblowers often are. She received a threatening “legal” letter from the local hospital. She’s been told by one of the local doctors that everyone wants to take her down “politically” and ruin her career. She has also received omenous, threathing phone calls. But others are starting to speak out with worrisome observations of their own.

Since Young stepped forward, a mother in Vernal contacted us about a rare birth defect her six-month old has that threatens her baby’s ability to breathe. Two houses away, her neighbor’s three-month old baby has the same birth defect. Checking with the local pediatrics clinic has revealed 30 patients with the same rare birth defect. It amounts to a prevalence rate of at least seven times the normal rate of one in 2,100 live births.

This drama is also a larger metaphor with global implications. Eastern Utah could be considered ground zero for the battle to keep the world’s fossil fuels in the ground. In addition to the fracking frenzy for oil and gas in the area, Utah is also “the gold (or ‘cured’) with the largest unconventional fossil fuel reservoir in the United States and perhaps the world - oil shale and tar sands deposits are 25 times larger than those in Alberta, Canada. Using geology-based methodology, the US Geological Survey estimated a total of 4.285 trillion barrels of oil in the oil shale of the three principal basins of the Eocene Green River Formation, near Vernal, Utah.

If those deposits are extracted and burned, the resulting emissions would be much more carbon intensive than conventional oil and gas drilling. Utah would become home to the largest known carbon “bomb” on the planet. More “game over” for the planet than the Keystone pipeline.

The international medical community has called the climate crisis, “the biggest global health threat of the 21st century” and could put the lives and well-being of billions of people at increased risk. Through the world the most vulnerable will be infants and children.

Apparently that is just fine with Utah’s governor and the majority of our legislature. It is certainly not only fine with, but enthusiastically promoted by, Uinta County commissioners and local political figures. It is also fraught with irony because numerous projections on global warming predict that Utah will become North America’s greatest warming “victim” outside the Arctic. Projections from 2008 suggested that temperatures may rise by 9 degrees F in Utah by 2100. Global warming caused losses have only become more alarming since.

A rise of this magnitude will decimate the ecosystems that are necessary to support human life - it means dramatically more drought, shrinking snow pack and water resources, more wildfires and dead forests, unsustainable agriculture, and apocalyptic dust storms - a complete collapse of the human carrying capacity of the Western United States. And it means more dead babies, a lot more.
The Heinrich Böll Foundation is a German Green political foundation that works in over 60 countries in the spheres of sustainability, cross-cultural dialogue, and education.

Our patron, the writer and Nobel Prize laureate Heinrich Böll, personified the values we stand for: the defence of freedom, civic courage, tolerance, and open debate.

Common European values, gender democracy and energy transition are both central tenets and cross-cutting themes for the Warsaw Office. Since 2002 we have been supporting the development of civil society in cooperation with NGOs, academic institutions, think tanks, and state administration.

Within the Democracy & Human Rights programme we back social changes promoting equal rights and opportunities for all groups. We emphasise the effective functioning of public institutions, the strengthening of democratic accountability, and civic participation.

Our Energy & Climate programme aims to intensify discourse about the challenges presented by energy transformation and climate change. We place special importance on long-term green modernisation and energy concepts that guarantee socio-economic development, a clean and healthy environment, security, as well as consumer protection.

The International Policy programme focuses on deepening German-Polish cooperation related to the future of the EU, its role in the global arena, and transatlantic relations. Through various projects we create a space needed for discussion about the development of a common European foreign and security policy.

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