No, thanks! It's too risky

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.

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.

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 implementation of investments into prospecting, exploitation near health resorts, the territories. The same goes for public forests and sites of important historical heritage. The decision taken by one person – the voivod – will clash with the rules of democracy and will also create space for corruption, conflicts of interests and abuse of power.

If the law is adopted in its current form, this will be a stark violation of basic civil rights and the rules of democracy, as enshrined in the Polish constitution, the EU legislation and international law, including the Aarhus Convention on Access to Information, Public Participation in Decision-taking 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 signatories. It can be done by sending an e-mail to fun- dacji@refekcje.org.
The threat at my doorstep

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 something so formidable as an 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 the new word is: “no outlet” road that goes past my drive-way and used to lead dead end at a hiking trail in the Loyalsock State Forest. Most days, not a single car drove by during my 2-mile walk along this road. The dog trotted off-leash beside me, and neighbors who did drive by would 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.

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 glistens 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 1933. The memories my family has made here are priceless and my grandchildren would have been the 5th generation to live here. The creek, ride and hike in the nearby woods. In our increasingly transient society, roots this deep are precious and rare. And yet – my son and his family recently moved 300 miles away, north of Brattleboro Vermont, far from family, but off the shale, seeking a safer place to raise children. Those of us who re-main talk of also abandoning our heritagge 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 spe-cial place we once called home has become the Marcellus Sacrifice Zone.

Barbara Jarmoska is an activist of Responsible Drilling Alliance, citizens’ organization in Pennsylvania.

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Brook Lenker

FracTracker was launched in June 2010 as a multi-disciplinary project of the University of Pittsburgh’s Center for Healthy Environ-ments and Communities. The initial geographic focus of the project was Pennsyl-vania and the region Devon Energy US due to 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 natural gas extraction. The organization is based in Pennsylvania but has staff in NY, OH, WV, and CA. Their website covers oil and gas activity in over 30 U.S. states, national data trends and issues as well as internatio-nal questions. The website encoun-ters over 450,000 page views and nearly 150,000 unique visitors annually.

Their work pays dividends: a website visitor discovers drilling nearby; a leg-iurator learns about the industry’s rate of water consumption; data are synthe-sized for an organization making poli-cy 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 wide-spread impacts from the oil and gas indu-stry wherever it operates. In Pennsylvania, hundreds of cases of well water being compromised from methane migration or other contaminants. Across the U.S., seve-ral studies have shown health problems associated with exposure to air pollutants at drilling sites. Well pad construction, pip-eline installation, and sand mining (for frac sand) has resulted in the destruction of thousands of acres of forest and wildli-fe habitat. Communities suffer from heavy truck traffic and the associated problems: increased accidents, road damage, and diesel emissions.

While promoted as a bridge or transi-tion fuel, the climate risks from natural gas development are perhaps the ultima-te impact. Methane escaping into the at-mosphere is a potent greenhouse gas and the immense volume of oil, natural gas, and other hydrocarbons cumulatively produced from the fracking boom may perpetuate global dependence on these fuels and reduce investments in re-ne-wable 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 dril-ling, 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 re-cent 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. Activists there are addressing large pipeline proposals and even a plan to store compressed na-tural gas in abandoned salt caverns bene-ath 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.

The FracTracker Alliance is thinking boldly: exploring new topics, investigat-ing local concerns, building more part-nerships, encouraging citizen science (in part, through a mobile app), invigorating social media and communica-tion tools, and reaching out to audien-cies 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, Po-land!). Details of the Polish workshops are currently being planned. In the me-anime, FracTracker encourages Polish audiences to visit their maps and other resources and share questions, photos, and data – anything that will contribu-te to a better understanding of these im-portant issues and help FracTracker be a continuing resource for good.

Brook Lenker is the Executive Director of the FracTracker Alliance and previo-sly served as the Manager of Educa-tion and Outreach for the Pennsylvania Department of Conservation and Natu-ral Resources and as the Watershed Stewardship Director for the Alliance for the Chesapeake Bay. He holds MA and BS degrees in geography from Towson University.
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nging with me: an agricultural, to-

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n the environment is invalid. Practice proves that there are no such regu-

nion – the technology currently

he lithium is allowed to use for bore-holes – the allowances ranged from 1.8 to 3.5 million gallons per day (1 gallon = 3.7 liters). Security documents were in an open chest which conta-

maps and technical details of the chemicals available on the pad. I was surprised that these structures were neither fenced nor guarded. Anyone can enter. That can end in baton shots. In Poland we see a problem from the other side of the spectrum. Chevron did not have a licence to drill in Żurawlów – just for seismic research – when it wan-

ted to erect a fence. That is when our protest started.

E. S.-J.: I was also shocked by the si-

ght of the large scale devastation of

ature – even in places full of pro-

ected species, such as bears or rare

birds that need peace and quiet. Let

us not forget that people live there, too – in the lower parts of these wo-

od-covered hills. You even found a

woman that has the same name as

you over there – don’t you think

have a lot in common?

B. S.: Yes, meeting Barbara was in-

credible. Barbara, just like myself,
decided to move from the city to the

countryside. She loves nature, peace

and quiet. Let’s move to another

place – a small settlement of eight

houses, that are situated in the fo-

dow to the curve of the road, which

consumed 1,000 dollars. Thanks to her greed and lack of knowledge, all of them suffered

from noise and dust day and night for

six months.

The arrogance and impudence of

the company was the same as any-

where else. On Barbara’s land, clo-

des to the windows of her house, the

company decided to put a portable
toilet for a woman who was di-

recting the trucks all day. Millions of
trees cut on the hills, along with wide

clearings and water pipes lines that

look like ski slopes created conditions for landslides. In 2011 they had a huge food that com-

tely devastated Barbara’s house and

paddocks. All of this made her act-

in a local citizens’ organisation fi-

ghting against the expansion of the

shale gas industry in Pennsylvania.

E. S.-J.: Barbara told us about their

work, we were also present at one

of the meetings of their board. We

were impressed and acti-

ve people are participating in the

organisation. Have you seen any si-

blic actions of the Zielony Żurawlów association?

B. S.: The difference is that Respon-

sible Drilling Alliance groups pe-

ople from different backgrounds

and living in different places, so

their work is not focused on any par-

cicular place. But there is a lot of

similarities. Both them and us fight

for the right of local communities to

be heard by the lobby for better legisla-

tion. We also have the same methods –

we gather and share knowledge, pa-

ticipate in legal proceedings, lo-

cal meetings, conferences, seminars

and public hearings.

Our main medium is the Internet. We also went to the meetings of the Agriculture Committee of the Polish Parliament and to the European Par-

liament. Right now we are also lea-

ring how to use renewable sources of

energy and will be promoting them and their development. We tal-

ked about it with activists from Dry-

den. I have the impression that the

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Barbara Siegieńczuk was amazed to see some of the infrastructure so close to houses. It is possible in Pen-

sylvania. If the ground close to some-

one’s house has been leased by the neighbours, the owners of such a house have nothing to say. The companies can be very persuasi-

ve and even manipulate people to achieve their goals, which leads to huge conflicts between the neighbo-

ors. Communities, even families, got divided this way. I did not know that such practices happen in a
democratic country. As one of the

inhabitants of Dryden, NY said to us: “Democracy in the US was kil-

led in the last six years”. Dryden is the first community in the US whe-

re a court’s decision, confirming the right of the local authorities to for-

bid bore-holding for fracking on its area, has been validated. It is a huge, unprecedented victory for the local

community, which could overcome internal divisions and put pressure on the local authorities.
A Country Bleeding with Gas

Paulina Lota

A visit, in which we could partici- pate thanks to Heinrich Boell Fo- undation, started in Washington. The director of the Energy Secu- rity Initiative of The Brookings Insti- tute, and one of the most impor- tant think-tanks in the world, Charles Ebinger, started with say- ing that the situation of Poland in terms of energy is a catastrophe. Shale gas has revolutionized the energy situation in the US: 28% of the generated energy derives from fracking, and there are ways to increase it to 39%. Gas extraction makes room for deve- lopment of various branches of in- dustry. A lot of states are having good economic results thanks to fracking (Pennsylvania being an example), poor farmers are now millionaires and the environmen- tal standards are still the highest possible. They believe that turning away from shale gas and nuclear as energy sources is out of the question. The US should invest in drilling and frac- king as much as possible, in or- der to diversify the source of energy as much as we can.

Another perspective on this indu- stry was put forward to us by the members of the Frac-Tracker Alliance – a grouping of activists from all over the US, com- prising of scientists and ordi- nary citizens. Their research and analysis of the impact of fracking on the environment, health and re- gulations is really impressive. Brook Lenker, Gwen Lehman, Paul Zeyh, and John Nerboek told us about the huge scale of activities of the industry, the mass- ive amounts of bore-holes and cases of their leakage, pollution of ground water, breaking of re- strictions! The total number of shale and other harmful substances not only from drilling, but also com- munity sites, pools for fracking liquid and pipelines. Out of 1082 drills that have been made since early 2014, in 30% there have been some violations. An important is- sue is related to huge amounts of water used in the process as well as to the waste that is being cre- ated in the process that can be both in liquid and solid state, and some is even radioactive. There have also been incidents such as leakages, fires and explosions. All of this happens on private lands, but we are talking not only about these lands but also about the state itself – public money is being poured into the rebuiling of roads, bridges and buildings.

The problem is that on such a huge amount of drilling sites there are just 87 inspectors...

We heard the same story in the Pennsylvania State House. Gas is cheaper and better for the envi- ronment than oil and coal, the owners of land are making money rable damages in the ecosystem, and new jobs are being cre- ated. Sadly the state itself doesn’t see the potential. The level of taxation is low – just 5% of profits from the production gain. In acknowledgement that the envi- ronment, the wishes of the citizens of the state were also inconsistent with the constitution of Pennsylvania and the Environmental Ri- ghts Amendment that guarantees them “the right to clean air, clean water and the preservation of na- tural, spatial, historical and esthe- tic values of the natural environ- ment”. This paves the way for a successful fight against fracking with local legislation.

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All hope that other countries will learn from the experience of the United States - it is drinking wa- ter that is our top priority. Kate De Angelis, a climate and energy activist from Friends of the Earth, argued that Sen. Mar- key fights with LNG exports for economic, not environmental rea- sons – he would like to keep the cheap gas for the US. Her orga- nization focuses on the negative effect of shale gas extraction on climate change, which she says sadly has not been considered at all public. The methane emissions during the extraction and liquifi- cation, are huge, as the report of Robert Howard from the Cornell University states. Shale gas is chea- ter than other sources of energy, but external costs are not added to the equation – costs such as cle- an-up of the water used in the process, getting risk of pollution, healing people etc.

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It was science that stopped fracking in New York

Dr Sandra Steingraber

Fragment of remarks from Sandra Steingraber’s PhD speech at the post-rally victory party in Ithaca, NY, 8-10-2017 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. Fracking was a vast pool of ignorance and unknown; on the far bank of that pool was what looked to be faint signs 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 told, these studies show that fracking poisons the air (especially with benzene and methanol), harms water, waste that is no gas well, they show that cement is not an impermeable substance, and those of them that show that cement is not an impermeable substance, and always create, for all time, a perfect gasket that seals off the fractured zone from above everything below.

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 lighthouse.

The conclusions reached by the New York State Department of Health—that fracking had 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 Physicists, Scientists and Engineers for Health Energy, and a major report from Canadian province of Quebec.

Four independent teams of public health scientists looked at the data and came to the same conclusion: Reports of known and unknown risks of harm for public health and the environment by which public health depends.

But, let’s be clear. Science alone did not stop fracking. The force of an informed public had to push down. This was 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 that in one way or another.

First, you invited issuances to scientists to come into your communities—into your church basements, town halls, middle school gymnasiums, chambers of commerce, and public schools. You invited us. And over the years, many of us PhDs and MDs spent a lot of time talking in your pews and in your living rooms, presenting information and laying our data for audiences of common folk to chew on.

Every church and town hall became a seminar. This cadre of traveling scientists and health professionals included Tony Ingraffea, Bob Howarth, Adam Law, Bill Poduza, Larry Ingraffea, John De Jesus, Mary Menapace, Sheila Buskin, and Yuki Horiba, among many others.

The second way science was used was by the people. The people were through the public comment process. In 2008, we called the 30 Days of Fracking Raps! Remember those days? It was the people who spoke science in a way that we had never heard before.

This dastardly plan involves repurposing old, crummy salt caverns underneath the shorelines of many states for vast quantities of methane, butane, and propane. From the Seneca Lake salt caves, the fracked gases will be pushed into pipelines—including, perhaps, the one that you are fighting—and propelled along by compressor stations.

Including, perhaps, the one that you are fighting.

The gas in the Seneca Lake salt caverns is not for us. The termi

nus of the pipeline is hundreds of miles away, and the Texas-based Midstream—the Texas-based company behind all this—makes it clear that it intends to turn the Finger Lakes into the gas storage hub for the entire Northeast.

Our next battle is fracking infrastructure—from Seneca Lake to Port Ambrose, from the Constitution pipeline to the Dominion New Market Project, and from frackings to liquid waste dumping.

As we go after these various proposals and projects, our work now diversifies and becomes more diffuse. But, happily, our skill set has also diversified. We’ve learned a lot over the past five years, we are battle tested, and we have wind in our wings. Against fracking infrastructure, we will prevail. I am playing to win.

As we enter the next phase of this fight, I do not hold it against you to want to know our secrets. Let’s not be exceptional. Let’s not say that New York’s anti-fracking activists were fearless and tireless.

In truth, we were scared and exhausted much of the time. Am I right?

Our secret was that we just kept going anyway. We learned how to stick together and listen to each other. And that’s what we are going to continue to do as we throw ourselves into fracking infrastructure projects.

My friends, I’m headed to the courthouse now to stand with the Seneca Lake Defenders. It’s a tough fight, but I go with this knowledge.

The state of our bedrock is unshattered, and the state of New York is, now and forever, unfractured.

Sandra Steingraber, PhD is a biologist, recipient of the Rachel Carson Leadership Award and co-founder of the Frack Pandemic Foundation Award for her achievements contributing to the environment. 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 Fracking and Concerned Health Professionals of New York, and serves as Science Adviser to Americans Against Fracking. She was arrested several times for civil disobedience against gas drilling in the Seneca Lake salt caverns. Photo: Flickr by CREDO
Poland is in a crucial and complex situation deciding upon its future national energy strategy. The discussion about the possibilities and potentials of shale gas extraction in Poland is triggered by concerns of a balanced and sustainable energy mix, national independence and security, economic prospects, and environmental regulation. The lively debates on fracking of unconventional gas have been fueled by a hope of a “Polish Netherlands” regularly taking the “US shale gas revolution” as a shining example of its own socioeconomic developments.

The Heinrich Böll Foundation (HBF) 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 both sides. In September 2014, the HBF hosted a roundtable discussion “Shale Gas – Current and Future Perspectives” in Warsaw and Washington, the latter organized a study tour to the US to offer Polish energy policy experts, activists and journalists profound insights into the socio-ecological situation deciding upon the future national energy strategy.

The study trip gave a look at how the growth of the natural gas industry in recent years has impacted local economies, public infrastructures, public lands and the environment. So, in a nutshell - what do we know now by now? Shale Gas Revolution – The Shining Example

Shale gas has become an increasingly important source of natural gas in the United States since the start of this century. In 2008 shale gas comprised only 1% of U.S. natural gas production; by 2010 it was over 20% and the U.S. government's Energy Information Administration predicts that by 2035, 46% of the United States' natural gas supply will come from shale gas. The United States is expected to become one of the world's biggest oil producer of the world. The shale gas bonanza not only provides the country with cheap and legal fuel for its industrial growth, it is helping to boost the US economy. Domestic shale oil and gas production also plays a more and more essential role in the US economy. 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 Revolution

Shale gas production is not a new invention. Shale gas was first extracted as a resource in Fredonia, New York, in 1821, however, the field was not exploited until the 1950s. Horizontal drilling began in the 1960s. U.S. Mitchell first extracted shale gas in 1981. From there the boom expanded. Since 2005 we have seen a large scale in the US, too. The authors can be regarded as a sound environmental option only if accompanied by stringent regulation. Shale Gas Innovation

Shale Gas and the Climate

The extraction and use of shale gas, however, can affect the environment through the leaking of greenhouse gases and waste into water supplies, the leaking of greenhouse gases (methane and other gases) from the extraction, and the pollution caused by the improper processing of natural gas. A chief concern is preventing pollution is that shale gas extraction variably also has an impact on the environment, even between different wells in the same area. During the processes that reduce pollution sufficiently in one extraction may not be enough 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 in Europe a 2014 study from The Marcellus Shale also presented the “First full life cycle assessment of shale gas used for electricity generation.”

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Three questions to scientists

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

Jake Hays

Dr Seth B. Shonkoff

Q: Is there a disconnect between government action and public perception?

Shonkoff: There has been a disconnect. The industry has continued to promote gas as a bridge to clean energy while the public and policymakers, especially on the left, have increasingly come to question the idea. Gas is not a clean fuel. It is a fossil fuel and produces greenhouse gases. The idea that gas can bridge us to clean energy is not a scientific fact. It is a political choice. The disconnect is due to the fact that the industry has been successful in advancing its agenda without addressing the scientific evidence that shows the harms of gas.

Q: How do you think the industry and government can work together to address the concerns about gas?

Shonkoff: The industry and government must work together to address the concerns about gas. The industry must be transparent about the harms of gas and work with government to develop regulations that are effective in reducing the harms. The government must ensure that the industry complies with these regulations and hold the industry accountable when it does not.

Q: What do you think is the future of gas and its role in clean energy transition?

Shonkoff: The role of gas in the clean energy transition is uncertain. It is not a clean fuel and produces greenhouse gases. The industry must be held accountable for the harms it causes and work with government to develop regulations that are effective in reducing the harms. The future of gas will depend on the industry's willingness to address the harms it causes and work with government to develop regulations that are effective in reducing the harms.
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 growing for over a decade now, shale gas sector, which has been sources. If we look closely at the change that threatens life on Washington.


- the deposit, by pumping underground fracturing process and inability to fully control the un-
- more, faster and faster...
- initial point) returns to the sur-
- taneously and then horizontally, spre-
- In Poland, shale gas deposits co-
- in turn leads to more drills.
- the rest of the process. Therefore, to
- Once, drilling sites were to be similar to what
- to explore all of them. If the intensity of drilling were to be similar to what
- face along with the extracted gas – it is highly toxic waste and ne-
- enhouse gases, it should be a “bridge fuel” between coal and renewables, quickly aging to substantial reduc-
- We all know that water is the most
- large-scale extraction of shale gas
- Some of the most beautiful and environ-
- These facts should serve as

These facts should serve as reasons for all the countries, fracking should be definitely banned from protected natural

Yet it is very hard for environment activists and residents of the threatened areas to reach policy

water needed for fracturing and how much water could be collected from the environment. The volumes amounts ranged from 1.8 to 4.5 million gallons per day. To reduce the road transport of water, there are underground water pipelines, artificial reservoirs, and water reservoirs built exclusively to serve the needs of the mining industry.

In the process of shale gas extraction, the drilling wells and the gas reservoirs 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 Klappkowski, informed during the press conference. These incidents at official conferences are regularly told by the ubiquitous “shale geology” Professor Pogor (from a single documented case of water pollution due to shale gas extraction has happened so far in the US; there has been one case in Wyoming, but it happened in very specific geological conditions. Contamination does occur, there have been multiple cases of it and they have to be widely communicated to the public. People who live close to the drilling wells sometimes detect a smell or smell of hydrocarbons in their tap water. Rivers, streams, ponds and lakes often come contaminated, along with the fish and other creatures that live there 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 the direct vicinity of the drilling wells and the gas deposits. The problems concern yet another huge reservoirs of exceptionally pure water, such as the GZWP No. 807, which should 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 Kaufman of Cape May County, whom we spoke at length in Pennsylvania, the public has been given to understand that the water remaining in the well body, the “bottom hole”, which later conduct the fracturing, but first they come up with a proposed composition and we have to agree on it together”, he said. We also learned that an independent inspector hired by the main investor from Pennsylvania, General Energy, has to be there on the drilling site to monitor the drilling process together with an expert from PGE.

Drilling and cementing is a sensitive activity, the conclusions vary even the same project and it’s easy to make a mistake.

According to a report prepared by the US Geological Survey, the quality of the drilled wells does not stand the test of time, and if the accidents occur on the construction site, drilling as a result of cement work failure accounts for nearly 5% of all incidents. As a rule, 2-3% of the proportion of leaking wells increases to approx. 60% due to pipe corrosion and cement aging. No one can say today how vast the long-term damage caused by the leaking will be and how much it will cost to undo the damage. Already today it happens that certain gas and oil 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 wind power producers cannot even 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, workshops and training sessions funded by the national environmental and water management fund, represent shale gas as a “renovable energy”, so far we have managed to avoid acts of violence against, and arrests of the people who oppose 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 unfasten the red carpet in front of investors from the entire hydrocarbons 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” exempt exploration, extraction and transportation of hydrocarbons from most of the environmental regulations, squandering the basic achievements 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 spas against the expanding shale gas mining industry, national park directors will have no say about plans to drill in their parks, and the same will happen to State Directorate of Forestry and the forests it administers, and to the Heritage Protection Offices and the national heritage sites they are in charge of. One person, decision-making powers will be vested in the provincial governors, which runs counter to the principles of democracy and will make the area unsafe for tourists, conflict of interest and abuse of power. This bill resembles Pennsylvania’s Article 13, which exempted drilling from spatial management regulations, leading to a large number 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 operate 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 allegation that has never been substantiated. Strangely enough, those advocating the development of hydrocarbons 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 regulatons 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 to transport and distribute 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 exploitation and extraction of shale gas in Poland until reliable public consultations have taken place: https://obpatelektrownia.pl/prezalaz-sie/podpis-przywolaj.html

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

For the purposes of hydraulic fracturing, water reservoirs have been created in the filled forest - one in the form of a lake, the other in the form of a gigantic metal container.
Fracking, lobbying and democracy

On fracking lobby, democracy and connections between what is happening in America today and climate change - Gasland's director Josh Fox in conversation with Clare Waghorn.

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

Josh Fox: For the last four hours or five years, it's just not me but everyone in the films - the science experts, those dedicated to getting the dirt on the dirty secrets. People who have suffered unbelievable amounts of attacks, both of the most nefarious and depopular kinds 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 being put on this 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 is 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. Then, 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 incredibly 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 a war in the kitchen. But I could never anticipate the deviousness, the bald-faced lying and character damaging to our civic dialogue in the United States.

Today, we just assume that there are going to be corporations that will do whatever it takes to protect their bottom line, that they have no way of appealing their way. They have no rights and there are no structures to red these people to just be in the system. The oil industry has always considered these people to be just in the 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 being subjugated by such a huge industry is going to be similar, I think, whether you're a liberal Democrat or a conservative Tea Party person. The divide that often happens between people 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 University study. The question was: "What form of rule does America really have?" They did all the re-search and found that our 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 democracy 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 movement against fracking. I'm watching people being extraordinarily attentive to history. They're saying that we need to learn from all the things in those films, events, and protests. We need to befriend our legislators. Recently, 300 people decided to greet President Obama at Coo- perstown with anti-fracking signs. On the same day, a couple hundred people decided to greet Governor [Andrew] Cuomo in Long Island with anti-fracking signs. This is going on perpetually. I'm watching this and feeling, oh, God, I almost make me feel like democracy is an irrepressible force. It's bowing back at the grassroots and local levels and it's very exciting.

CW: I was watching the original Gasland recently, and then I watched Gasland Part II. And I noticed that the message of Gasland is so dated by comparison. There have been so many developments since. When Gasland was released, this was a subject people didn't know about and the message was really simple and straightforward. The second 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 discovery. And I think everyone who was watching the film was going through that same process. I think that's why it was so successful because it told that story. But now everyone knows about fracking. And the question of the second film is that now 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 second film is an inquiry into why governments can't stop this, that 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 injection 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 about a movement against a system. How do we do that? Well, one way is through the people and having common values. It's both a private property and individual rights question as it is a communal, public property and that's just the beginning of it. It's both a private property and individual rights question as it is a communal, public property and that's just the beginning of it. It's both a private property and individual rights question as it is a communal, public property and that's just the beginning of it. It's both a private property and individual rights question as it is a communal, public property and that's just the beginning of it.

When we're talking about what's happening in America today, I'm watching an incredible movement against fracking. I'm watching people being extraordinarily attentive to history. They're saying that we need to learn from all the things in those films, events, and protests.
Drill Baby Drill or Chevron Go Home?

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?

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 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.

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 steel manufacturer 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 the shale gas: Holy Field Holy War, Drill Baby Drill and Frack Democracy. Holy Field Holy War won three international awards of the festival FID Marseille.

The film “Drill Baby Drill” exists in six languages and can be screened here: http://www.lechkowalski.com/en/shop/download

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 actively participated in conferences and gatherings. Theinal public awareness of 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 leave Poland.

They knew that prolonging the conflict with them would make the corporation look bad in the eyes of public opinion. Protest (unprecedented in scale) was accompanied by legal actions of local habitants that also influenced the decision of Chevron to leave our country. It is a pity it took so long for them to “recognize” their mistake. The events in Zurawlow are important not only for the local community, but are also of truly global 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 protest. 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”.

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.

Selection of 70 photos of Andrzej Bąk, illustrating the actions of the community of Zurawlow in defense of the right to determine their fate and the expenses "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.

(fot. Andrzej Bąk)
Don't Frack Our Future

Farming and Fracking – An African Farmers’ Perspective

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 its indefinite ban on shale gas developments. More states and municipalities in the US are following. This method has too often led to the creation of a local ownership with a 25 % free carry by government of all future investments. Even the creeping nationalisation were introduced prior to the national elections on April 27, 2011. The government firmly in power, the news of a moratorium on new applications are bold. NengoBamathabodi asked the President not to sign the bill into law. Similarly, the Technical Guidelines have not been established. In November 2014 the government announced its intention to finally process the existing license application for three companies, while placing another moratorium on new applications. Companies are now required to redo their Environmental Management Plans and they are black and poor – and vote for the prescribed public consultations.

This course of events has given South African civil society some breathing time to start educating local farmers and farmworkers on the scientific basics of fracking. This silent majority of the rural population will be decisive in the political future that is bound to happen once exploration starts in earnest. South Africa divides land ownership between surface and subsurface rights. Under the constitution, all mineral rights are owned by the government. Thus, landowners have little incentive to consent to granting mining concessions. They are left with damages to the land and will receive only little compensation for their production losses.

Land ownership is hugely skewed in the Karoo. A few hundred farmers own large farms, some of them up to 60,000 hectares and larger. Together they control an area the size of the German. In the past commercial farmers had to half a million farm workers. This work force was made redundant in the last 50 years by changes in farming practices. Today the Karoo produces nearly exclusively meat and wool. Small farmers are left out completely. They have no access to land and much more important – to water. However, this is slowly changing again. Many black-led municipalities have leased land to the black and coloured majority of the population of the Karoo. A good example is the community of so-called emerging farmers in Murraysburg, a sleepy little farming town in the Swellendam Mountains. With no land ownership they cannot get access to agricultural credits. With no money, they find it hard to invest into anything. In addition, they have been given the much poorer soils of the town, as all good agricultural land is already in the hands of a few white farming families. Thus, they are reduced to raising small numbers of sheep and pigs and a little back yard gardening. Still, they refuse to give up their dream of once becoming proper farmers with their own rights. They lobby hard for a land reform that will give them access to some of the better lands. Yet, the government of South Africa is stalling this process in corruption, incompetence and lack of capacity. But one thing is clear to the emerging farmers: There is no point in fighting for land reform when the lands they might once get hold of, would be destroyed by fracking, when their future groundwater resources would be contaminated from horizontal drilling and injection of toxic fluids, when the land would be carved and parcelled by the infrastructure that comes with fracking. Thus they are vigilant and vocal. As the silent majority in the country and as the main voters for the ruling African National Congress (ANC), they matter and they will be heard.

In Peet van Heerden, the emerging farmers have an unlikely ally. His family has farmed the slopes of the Swellendam Mountains for five generations and has amassed a huge farm of prime agricultural lands. But what counts even more, his family has access to the important water sources in the mountains. Some 25 kilometres of concrete-lined canals criss-cross his property and bring abundance of life to this dry part of the country. However today most of this water runs off unutilised, as he is solely concentrating on livestock and re-growth crop production. The garden and vegetable fields that once sur rounded his massive farm house lie dormant. After the end of the Apartheid era, new legislation that gave farmers a minimum of protection of tenure on the farm they too had often lived for generations. But Peet and many other white farmers were quick to minimise the number of workers living on the farm to the bare minimum. They prefer to bring occasional labour from the nearby townships only when it is needed.

But he is also known as fiercely opposed to the idea of fracking. Like many of his colleagues he died to think it might be a good idea, bringing necessary economic development to this forgotten place in the middle of nowhere. But then his farmer’s organization AGRI-SA sent two representatives to the US to witness fracking with their own eyes. Their report back changed the attitude. While commercial farmers realized what they would stand to lose. Not owning the mineral rights under their land they would only get the damage to their lands compensated, but would not be production partners or receive royalties as the USA. During their negotiations with government they started to realize that fracking would be pushed through no matter what damages to the lands. Thus, they resolved to mount a concerted legal challenge. They provi ded unlimited financial backing to a small-town lawyer and his team to challenge the existing legal framework, with resounding success. Since 2008, when the first applications for fracking exploration rights were led, the authorities have not been able to create a regulatory framework that would give companies the required security to invest and make their investments safe from legal confrontation. In the meantime, most local farmers’ organizations have now widely educated themselves about the science and technology of fracking. Today, they are the most organized and formidable opposition force against fracking in South Africa.

Emerging farmers in Nieu-Bethesda get ready for action after training in fracking geology by the author

Monitoring report

Tereresa Adamska

Both global and local politics (also in Poland) have been dominated by the influence of global fuel and energy corporations, connected with the financial and military complexes. The result is a focus on exploiting the fuel and energy resources and on monopolising the market in these sectors. The corporate activities in Poland are connected with intense lobbying in the both chambers of the parliament, breaking the rules of democracy by corruption or by conflicts of interests in both local and national institutions, and the administration.

How does the situation regarding shale gas production look like in Poland? If you want to find out, a report “Shale Gas – a Challenge for Democracy” (“Gaz łupkowy – wyzwanie dla demokracji”) has just been published recently.

It can be accessed by clicking on the https://obywatelkontroluja.pl/raporty-gaz-lupkowy-wyzwanie-dla-demokracji webpage.

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

Dr. Stefan Cramer is a semi-retired hydrologist, currently living in the Karoo of South Africa to educate local communities about the science and technology of fracking for shale gas. He has had a distinguished career in scientific research in Africa, Asia and Latin America.
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 8, 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 sparsely 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 fracking extraction 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 cigarette fumes, 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 epidemiological 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, “Hand, if you love drilling.” Vernal politicians certainly do. With jobs, increased tax base, new community recreation centers, burgeoning 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 ominous, threatening 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 a “boondoggle” 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 methodologies, 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 process 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 Utah’s legislators. It is certainly not only fine with, but enthusiastically promoted by, Uinta County commissioners and local politicians. 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 oceans 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 wild fires 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.

The activities of The Heinrich Böll Foundation can be followed online on Facebook, Twitter, www.pl.boell.org and Issuu, while video and audio recordings are available on YouTube and Mixcloud.

Selected publications issued by the Foundation or in collaboration with partner organisations:

The Heinrich Böll Foundation has developed a special website focused on the ideas and strategies of the German energy transition.

The multilingual portal highlights the effects of the Energiewende on the German economy, environment and society.

Available on energytransition.de/2013/03/pl/ are:

- Comprehensive e-book and key findings,
- Glossary,
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- Infographics,
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