

US-Ukraine energy conference, September 21-27, 2013

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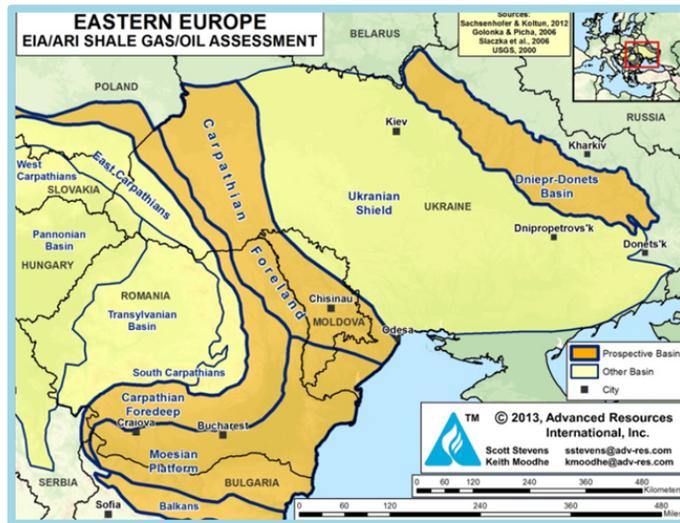
Recently I was invited by the Center for Safe Energy of Berkeley CA to participate in a conference on renewable energy and gas drilling. The location was on the outskirts of Rivne, Ukraine,



a city with a population of about 250,000 people, with rolling hills, although the word “rivne” means “straight” or “level”.



Ukraine has two shale formations. Shell has signed a secret agreement with the Ukrainian government for the eastern shale play, and the western one is under negotiation with Chevron.



Chornobyl is about 250 miles east/northeast of Rivne. This area continues to be impacted by low level radiation from the 1986 Chornobyl disaster <http://www.ncbi.nlm.nih.gov/pubmed/20737614> and <http://www.rawstory.com/rs/2011/04/05/chernobyl-still-contaminates-food-in-n-ukraine-greenpeace/>. (On the second half of this page <http://thewe.cc/weplanet/europe/mastukraine.html> there is more information about Chornobyl).



The retreat took place at a conference center named SKOLNO, just outside of Rivne.



Ekoklub partners with NECU and the American partners were the Center for Safe Energy of California.

The Ukrainian invitees to the retreat in Rivne were selected from many applicants from around Ukraine, and included some of the larger organizations like NECU <http://necu.org.ua/en/> and Ekoklub and Green Front <http://www.zfront.org/in-english/>, and also organizations like Mama86 <http://www.mama-86.org.ua/> and Environment, People, Law <http://epl.org.ua/en/>, as well as representatives from government and business.

The program, and our powerpoint presentations are available at the Ekoklub site http://ecoclubrivne.org/skolmo_training/ and <http://ecoclubrivne.org/sdpresentations/>.



photos: Melissa Prager

When we returned to Kyiv, there was still one more day of conferences—this one at the [Akademiya Nauk](#), and sponsored jointly by the [Heinrich Böll Foundation](#), NECU, Ekoklub, and Q-club. Some of our colleagues from the Rivne conference were there. In their presentations several individuals had mentioned the American delegation, so at the end of the conference I made some comments on the presentations I had heard over the course of the day.

In the first panel a presenter had said that shale gas should be extractable without contaminating the environment. My comment was that it does contaminate all too often. For example, in Pennsylvania the PA DEP has documented methane and heavy metal contamination of water wells; Duke University studies have shown methane contamination; Univ of Texas studies showed metal contamination (e.g., arsenic) in water wells near drilling sites. In addition, during the conference there was no mention of air contamination, especially with benzene and other VOCs, SO₂, NO_xs, ozone, PAHs, etc; the Univ of Colorado research, and also from the Endocrine disruption Exchange have shown dangerous levels of air contaminants near gas drilling sites.

Research from the SWPA-EHP shows that about 3/4s of the negative health impacts are due to air contamination. (The references for these statements are in my Rivne presentations).

In the second panel, the moderator asked two questions—are there unmanaged or unmitigateable problems with shale gas and are the regulations in Ukraine adequate? The answer to the first is yes. Air emissions including methane from all sources during the extractive/distributive processes are too high and cannot be curbed to safe levels with current technology; water contamination occurs too frequently, whether due to human error, accident or cost-cutting; waste management with HVSWFHF is overwhelming because of the volume and composition and cannot be handled safely or adequately; health impacts are not being tracked and non-disclosure agreements prevent reporting, as do the exemptions from key provisions of federal public health laws; worker health is compromised because of exposure to chemicals, silica and radioactivity, plus, the on-the-job mortality rate is 7-8 times higher than that of the average job in the US; radioactivity in some shale plays is a large problem and not adequately addressed, making spills and waste management much more dangerous. The answer to the second question is no, in my opinion.

Several countries in Europe have issued moratoria on the practice of shale gas extraction until the questions about the environmental and health impacts have been answered. Speakers have said that Ukraine should similarly issue a moratorium pending further independent evaluations.

At the conference I did say that regulations are not adequate in the US, so one should not look to the US for a regulatory framework. Best practices are available, however, they are more costly for industry, and our government has a lot of pushback from industry, even when they do try to implement these best practices. An example of this would be the air quality standards that the EPA is planning to put into place for the oil and gas industry, but which the industry has fought hard against, and they will therefore not be implemented for another two years. Another problem in the US is industry's practice of entering into non-disclosure agreements with impacted people when there is evidence that water or air contamination have occurred. As a result, complaints are sealed from review, even from the federal government. Prohibiting non-disclosure agreements would be advisable.

Each country should develop its own transparent, comprehensive and inclusive environmental impact assessment (EIA) and with that, a health impact assessment (HIA) should be included since EISs do not look at health impacts adequately. That has not been done in the United States. One of the many recommendations from an HIA might be monitoring and surveillance of health impacts (which is not being done in the US because of the exemptions, secrecy and non-disclosure agreements). And in Ukraine which is just starting the process of health reform, it is unlikely that human health impacts will be properly tracked until the health system is reformed. Without significant reforms, and a mechanism in place for surveillance and monitoring of health impacts, particularly of the most vulnerable, proceeding with the extraction of shale gas in the Ukrainian environment would be very risky.

Another issue I raised was the absence of the medical profession at fora, and also at the negotiating table with industry and whoever is involved in permitting at any level. This has been observed in the US <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3339470/>, and I urged the inclusion of the health community in Ukraine as a lesson learned.

Article 49 of Ukraine's Constitution states that "the state creates conditions for effective medical services accessible to all citizens".

Yet there is a health crisis in Ukraine (World Bank report http://siteresources.worldbank.org/INTECALEA/Resources/KB_V17_2_2010.pdf) and there is an urgent need for health reform

(http://www.euro.who.int/_data/assets/pdf_file/0010/96418/E84927.pdf (this WHO document is from 2004 but not much progress has been made). Among other issues, there is a disparity of healthcare access and delivery among population groups. Besides the much-needed reforms, an HIA on this environmental issue would identify vulnerable groups. It would also include as stakeholders those who could be potentially impacted, as well as those advocating for them, such as the medical community.

Some additional thoughts:

- Ukraine should be moving forward with regard to sustainability and health reform.
- It should be fulfilling its obligations under three international agreements on environmental protection: the Aarhus Convention, the Espo Convention and the Kyoto Protocol to the UN Framework Convention on Climate Change.
- The Government should include the process of Health Impact Assessment, as described by the World Health Organization and also by the US National Academy of Sciences to inform their decision
http://www.youtube.com/watch?v=QsL1U_EthYw, together with an Environmental Impact Assessment.
<http://www.psehealthyenergy.org/>
<http://concernedhealthny.org/>

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October 21, 2013