



Fracking – a hazardous extraction technology for what?

Elmar Grosse Ruse, WWF Switzerland



Picture: Wikimedia



Combatting Climate Change: Most of the fossil fuels must remain in the ground!

How much more CO₂ can the atmosphere bear (2014 – 2050)?

How much CO₂ is known to be still in the ground?

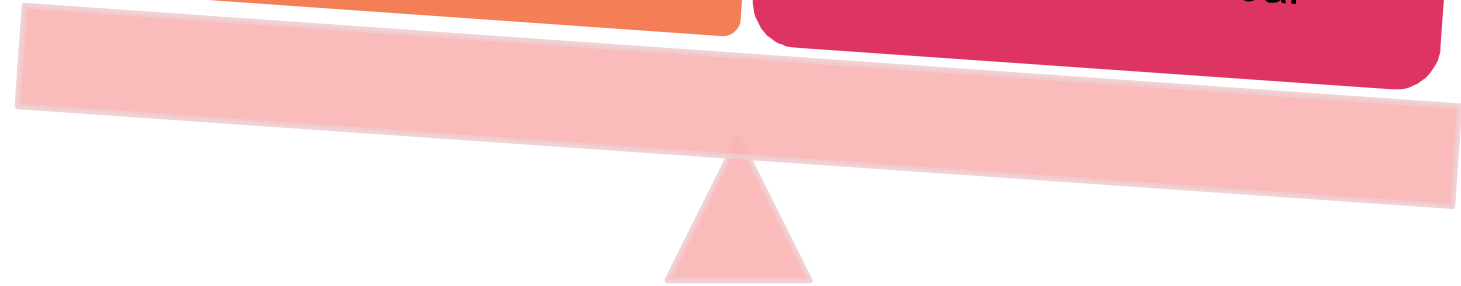
What do we need fracking for?

? Gt in unconventional reserves of oil

660 Gt in unconventional reserves of gas

2'860 Gt in conventional reserves of oil, gas and coal

900 Gt





Even the IEA warns...

“No more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2 °C goal.”

If we continue investing in fossil energy infrastructure until 2017, all the allowable CO₂ emissions would be locked-in by energy infrastructure existing at that time.”

International Energy Agency, World Energy Outlook 2012



Shale gas does definitively *not* mitigate climate change

- «Shale gas **replaces coal**»?
 - Small proportion only – it also replaces renewable energies and leads to rising energy consumption
 - Excess coal exported to Europe (and replaces conv. gas there)
 - Below the line: fracking = *negative* carbon footprint in USA!
- «Shale gas is a **bridge between coal and renewables**»?
 - Shale gas makes decision makers believe: finally a cheap, inexhaustible, low-carbon source of energy!
 - This *impedes* necessary investments and regulatory framework for renewable energies and energy efficiency
- «Shale gas is needed for **global mitigation**»?
 - China has high potential but low capabilities and intentions
 - Gas scenario of IEA leads to global warming of 3.5 degrees C



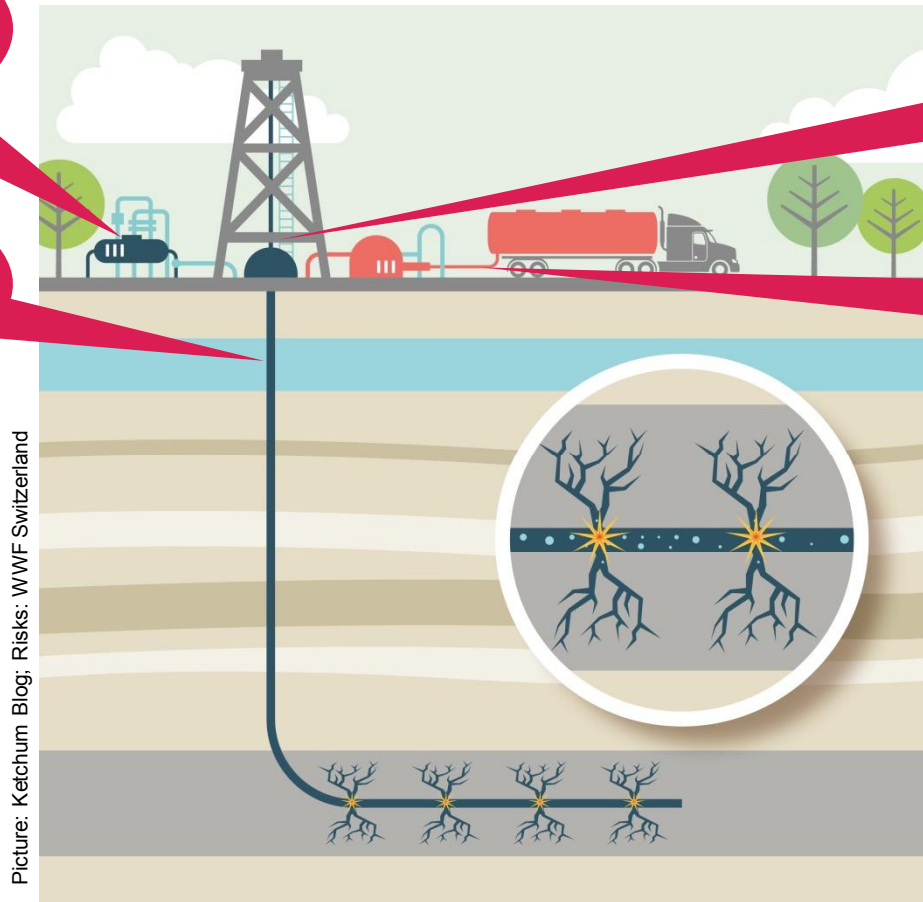
Of course, fracking has further risks ...

Impact on water resources

Contamination of ground water

Soil sealing / land consumption

Hazardous substances in flow back



Picture: Ketchum Blog; Risks: WWF Switzerland



Conclusion: a hazardous extraction technology not needed

- **Even if environmental hazards were manageable...**
 - **some may be, some will remain**
- **The purpose of fracking is: more / cheaper gas**
- **But:**
We don't need more / cheaper fossil fuels!
Most of the stuff must stay in the ground anyway.



If we go for fracking nevertheless, then ...

The screenshot shows a web browser window with the Bloomberg logo at the top left. The article title is "German Beer Purity Threatened by Fracking Say Brewers" by Stefan Nicola, dated May 23, 2013. The text discusses German brewers' concerns about shale gas fracking and its potential impact on beer purity. It mentions the Association of German Breweries and a spokesman, Marc-Oliver Huhnholz, who expressed concern that fracking could endanger brewing water and threaten the country's 500-year-old law on beer purity. The article also notes that fracking is politically and environmentally contentious in Germany as federal elections approach.

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German Beer Purity Threatened by Fracking Say Brewers

By Stefan Nicola - May 23, 2013

German brewers called on Chancellor Angela Merkel's government to block the tapping of shale gas by means of hydraulic fracturing, citing industry concerns that fracking could taint the purity of the country's beer.

The [Association of German Breweries](#), which represents companies including [Anheuser-Busch InBev NV \(ABI\)](#) (ABI) and Bitburger Braugruppe GmbH, rejected the government's planned legislation on fracking until groundwater contamination can be safely excluded. They said the current proposals are inadequate to protect drinking water and hence risk infringing the country's 500-year-old law on beer purity.

"We are concerned that fracking endangers the brewing water that more than half of Germany's breweries take from private wells," Marc-Oliver Huhnholz, a spokesman for the group, said today by phone from Berlin. "And that it threatens our absolutely pure beer." The association has sent a letter voicing its concerns to six Cabinet ministers including Environment Minister Peter Altmaier, he said, confirming a report in Bild newspaper today.

Fracking, which is already politically and environmentally contentious in [Germany](#) as federal elections loom on Sept. 22, has attracted a powerful opponent in the country's brewers, which together employ more than 25,000 people in an industry with sales of about 8 billion euros (\$10 billion) last year.



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