

# Environmental impacts of shale gas and shale oil extraction activities

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The Committee on the Environment, Public Health and Food Safety adopted an own-initiative report by Bogusław SONIK (EPP, PL) on the environmental impacts of shale gas and shale oil extraction activities.

The committee recalls that the development of shale gas is not uncontroversial in the EU or worldwide, thereby necessitating a thorough examination of all the impacts (on the environment, public health and climate change) before developing this technology further. In this context, the committee makes the following recommendations:

**General framework** regulation, implementation, monitoring and cooperation: the report stresses that, notwithstanding the Member States exclusive prerogative to exploit their energy resources, any development of unconventional fossil fuels (UFF) should ensure a fair and level playing field across the Union, in full compliance with relevant EU safety and environmental protection laws.

The Members consider that a thorough analysis of the EU regulatory framework specifically regarding UFF exploration and exploitation is needed. They welcome, to this end, the upcoming conclusion of a number of Commission studies on identification of risks and urge Member States to be cautious in going further with UFF until the completion of the ongoing regulatory analysis and to implement all existing regulations effectively as a crucial way of reducing risk in all gas extraction operations.

The Commission is called on, following the completion of its studies, to conduct a thorough assessment on the basis of the European regulatory framework for the protection of health and the environment and to propose, as soon as possible, appropriate measures, including legislative measures, if necessary;

The report calls on the Commission, in cooperation with Member States and the competent regulatory authorities, to introduce ongoing monitoring of developments in this area and take the necessary action to complement and extend existing EU environmental legislation.

Recognising that the industry bears primary responsibility for preventing and reacting effectively to accidents, the Members call on the Commission to consider including operations related to hydraulic fracturing in Annex III of the Environmental Liability Directive and on the relevant authorities to require sufficient financial guarantees by operators for environmental and civil liability covering any accidents or unintended negative impacts caused by their own activities or those outsourced to others.

**Environmental aspects of hydraulic fracturing:** the report recognises that shale gas exploration and extraction may possibly result in complex and cross-cutting interactions with the surrounding environment and that relatively high water volumes are involved in hydraulic fracturing. It highlights the need for advance water provision plans based on local hydrology with consideration for local water resources, the needs of other local water users and capacities for wastewater treatment.

The Members call for mandatory baseline analysis of groundwater and geological analysis of the deep and shallow geology of a prospective shale play prior to authorisation. They also stress the need for scientific studies regarding the long-term impact on human health of fracking-related air pollution and water contamination.

The Commission is called on to:

- bring forward proposals to ensure that the provisions of Directive 2011/92/EU adequately cover the specificities of shale gas, shale oil, and coal bed methane exploration and extraction;
- bring forward proposals to explicitly include fracking fluids as hazardous waste under Annex III of the European Waste Directive (2008/98/EC);
- ensure that the relevant European environmental standards are met in full, particularly with regard to the water used in hydrofracking, and that breaches are appropriately penalised;
- issue guidance, without delay, on the establishment of both the baseline water monitoring data necessary for an environmental impact assessment of shale gas exploration and extraction and the criteria to be used for assessing the impacts of hydraulic fracturing on groundwater reservoirs in different geological formations, including potential leakage and cumulative impacts;
- bring forward legislative proposals: i) to make the use of completion combustion devices (green completions) mandatory for all shale gas wells in the EU, ii) to limit flaring to cases where there are concerns about safety, and iii) to completely forbid venting of all shale gas wells, in an effort to reduce the fugitive methane emissions and volatile organic compounds linked to shale gas.

The Members believe that many of the current controversies over UFF have partly resulted from an initial refusal by the industry to disclose the chemical content of fracturing fluids. They maintain that full transparency is required, with a mandatory obligation for all operators to fully disclose the chemical composition and concentration of fracturing fluids and to fully comply with existing EU legislation under the REACH regulation.

**Public participation and local conditions:** recognising that drilling activities can worsen living conditions, the report calls on the industry to engage local communities and discuss shared solutions to minimise the impact of shale gas developments on traffic, road quality, and noise where development activities are being carried out.

The Members call on Member States to ensure that local authorities are fully informed and involved, particularly when examining requests for sourcing and exploitation permits.

Public participation should be ensured through adequate public information and through public consultation before each stage of exploitation and exploration. They also call for greater transparency with regard to impacts and to chemicals and technologies used, as well as greater transparency of all inspections and control measures.

**International aspects:** the Members insist that lessons must be drawn from the USA on the exploitation of shale gas. They note with particular concern that shale gas extraction necessitates very large volumes of water, which may make it difficult to achieve the 7<sup>th</sup> target of the Millennium Development Goals (MDG) concerning access to clean water and food security, especially in poor countries that already face a severe scarcity of water.

They are also worried about potential investment by European companies in unconventional oil or gas resources in developing countries.

The report stresses that the EU's obligation to ensure policy coherence for development, enshrined in Article 208, Treaty on the Functioning of the European Union (TFEU), must be respected. The Members take the view that, in hosting companies investing in extractive activities, the EU should influence their behaviour to encourage more sustainable practices, such as by strengthening corporate governance standards and regulations applied to the banks and funds that finance them.