

Fracking: a children's rights issue

Overview

'Unconventional gas' is so called because of its atypical geological locations e.g. highly compact rock or coalbeds. As such it requires specific extraction techniques, such as 'fracking'¹ and coal bed methane extraction (CBM), which requires the dewatering of coal seams.² No fracking has taken place in Scotland, although consideration is being given to all fracking technologies: Shale Gas/Oil, CBM and Underground Coal Gasification (UCG) under the 14th onshore oil and gas licensing round³.

These processes are controversial, with strong proponents on each side. Those favouring such techniques view these procedures as contributing to the replacement of gas resources and helping to contribute to meet the world's increasing energy demands. Those against point to environmental and health concerns and an increase in greenhouse gas emissions and the impact on climate change. My position is to consider the issues from a children's rights perspective.

As Commissioner for children and young people, my role is to promote and safeguard children's rights and to remind the Scottish Government of the commitment made to children and young people when the UK ratified the United Nations Convention on the Rights of the Child (UNCRC) in 1991. In ratifying the UNCRC, the UK and its devolved Governments recognised that children require more, not less protection of their rights due their relative lack of social, economic and political power and their dependence on adults to meet their needs and protect these rights.

Because of this, I strongly urge the adoption of the precautionary principle in consideration of such techniques. This applies when an activity raises threats of harm to

¹ Hydraulic fracturing

² Although CBM does not always involve fracking, this is often done when access to coal seams is difficult. Chemicals used in CBM can also be as toxic as fracking, with similar risks of spills and leakages. CBM is also typically found at shallower depths than shale gas, risks such as groundwater contamination are increased.

³ Exploration and extraction from conventional oil and gas fields and unconventional shale accumulations e.g. fracking and CBM is restricted to holders of petroleum exploration and development licences (PEDLs), awarded by the Department of Energy and Climate Change (DECC) through a competitive licensing process.

the environment or human health, even if some cause and effect relationships are not fully established scientifically. If an action has a suspected risk of causing harm to the public, then in the absence of a scientific consensus that it is harmful, those proposing the act must prove that it is not.

How fracking relates to children's rights

There are four guiding principles of the UNCRC. These can be found in Articles 2, 3, 6 and 12.

- Article 2, "**non discrimination**", requires that all rights apply to all children without exception. It requires that consideration be given to the impact of law, policy and practice on children as a distinct group and particularly those most vulnerable marginalised. It obliges the State to protect children from discrimination and to take positive action to promote their rights;
- Article 3 requires that **the child's best interests** are the primary concern in decisions affecting them. It aims to address the low priority often given to children's interests when there are other competing interests and obliges decision makers to consider whether decisions they make will impact on children's lives, what the impact will be and how the child's best interests will be taken into account;
- Article 6 requires the State to ensure that **children survive and develop healthily** and have the right to the maximum available resources to help them achieve their fullest potential;
- Article 12 refers to the right of **children to express their opinions freely** and have their opinions taken into account in matters affecting them, when adults make decisions. This is linked to article 3— the best interests principle. The Convention recognises that the level of a child's participation in decisions must be appropriate to the child's level of maturity.

There are also specific rights relating to health and the environment, including article 24 which calls on States to recognise the right of the child to the enjoyment of the highest attainable standard of health and article 29 which calls for an education directed to the

child's personality, talents and mental and physical abilities to their fullest potential. This includes the development of respect for human rights and fundamental freedoms and for the natural environment. Article 17 of the Convention refers to access to information. **Children have the right to get information** that is important to their health and well being

Barriers to realising rights

Planning and Public Health

Many planning decisions have a direct impact on the health of the local community, yet this is often overlooked in the planning process. Environmental Impact Assessments seek to ensure that the environmental effects of major projects and development proposals are investigated, understood and considered before decisions are made on whether they should proceed. Current planning laws and regulations often neglect wider public health effects e.g. they do not require public health impact assessments or life cycle analyses— e.g. from extraction through to disposal and contamination, nor do they require detailed health assessments of mixtures.

Because of this, I would support the introduction of public health assessments during the planning process for such projects. This is an important rights issue and may impact considerably on children and young people. Given that children and young people will be affected by such developments, I would also urge their involvement in any consultation in a meaningful and appropriate way. A key part of a child's education is the development of respect for the natural environment. Involvement in meaningful consultation on decisions affecting the environment will help to achieve this.

Chemical exposures

The potential health risks of unconventional gas are also of concern. Whilst we have a good understanding of the effects of high levels of toxic exposure, the effects of low level exposures are harder to assess. That there is no safe dose of a carcinogen is accepted by medical establishments, including the WHO - risks may be small, but they never disappear. Endocrine disrupting chemicals (EDCs) can have far reaching effects at

very low doses e.g. parts per billion (ppb), particularly during pregnancy and the idea of a cut off point below which no harm is assumed is misleading.

The idea that maternal exposure to certain chemicals and drugs during pregnancy can have detrimental effects on the foetus is not new: adverse effects on foetal development and long terms effects on health as a result of cigarette smoking and alcohol consumption is now widely accepted for example in the Royal College of Obstetricians and Gynaecologists Scientific, Impact Paper No 37 'Chemical Exposures During Pregnancy: Dealing with potential, but unproven risks to child health'.

The combined and cumulative effects of exposure to multiple toxins in modern life exacerbate the potential risks of fracking and CBM, making it difficult to sift out the effects from those associated with other sources. Colborn⁴ has produced a list of 944 products, containing 632 chemicals used across such operations. CBM waste water has been found to contain harmful chemicals from the drilling fluids used as well as highly toxic chemicals including known carcinogens, EDCs and naturally-occurring radioactive materials⁵. Huge amounts of contaminated water must be treated and disposed of, but evidence elsewhere illustrates that existing treatments cannot remove all the toxins found in CBM wastewater⁶. Fracking and CBM may result in unavoidable environmental and health impacts even if extracted with caution. In my view therefore, the precautionary principle should be adopted.

Climate change

With current trends, we are likely to exceed 2 degrees centigrade of mean global warming associated with dangerous climate change⁷. Bringing additional fossil fuels into production will increase global cumulative emissions. As such fracking and CBM is

⁴ Tholborn et al (2011) Natural Gas Operations from a Public Health Perspective

⁵ 8 National Toxics Network 'Toxic chemicals in the exploration and production of gas from unconventional sources' http://www.ntn.org.au/wp/wp-content/uploads/2013/04/UCgas_report-April-2013.pdf

⁶ 9 National Toxics Network submission to New South Wales Inquiry into Coal Seam Gas, September 2011, <http://www.ntn.org.au/wp/wp-content/uploads/2011/11/NTN-submission-to-the-NSW-Inquiry-Into-Coal-Seam-Gas3.pdf>

⁷ Andrew Jordan, Tim Rayner, Heike Schroeder, Neil Adger, Kevin Anderson, Alice Bows, Corinne Le Quéré, Manoj Joshi, Sarah Mander, Nem Vaughan & Lorraine Whitmarsh (2013) Going beyond two degrees? The risks and opportunities of alternative options, *Climate Policy*, 13:6, 751-769

inconsistent with national and international commitments and the reductions needed to avoid dangerous climate change. Globally, exploiting the world's reserves of unconventional gas could lead to a temperature rise of 3.5 degrees centigrade, way beyond the 2 degrees rise deemed necessary to avoid dangerous climate change. Scotland has an ambitious climate change target to be at least 80% lower than the relevant baseline by 2050, with an interim target of 42% reduction in greenhouse gas emissions by 2020, but I feel that this is jeopardised by focusing on unconventional gas.

Climate change is an urgent challenge for children across the world. UNICEF⁸ estimates that over the next decade, approximately 175 million children a year will be affected by climate change related disasters. Children are recognised as being as the most vulnerable to the impacts of climate change, the least responsible for the causes, yet they will inherit a legacy they did not choose. Their vulnerability to climate change threatens the realisation of their rights as set out in the United Nations Convention on the Rights of the Child, an important framework for protecting children's rights in a changing climate. For example, article 24 'a child's right to health' is directly and indirectly threatened by climate change especially when health sustaining conditions such as clean water is compromised. Furthermore, the increase of greenhouse gas emissions, including carbon dioxide and methane contribute directly to air pollution. UNICEF identifies at least 15 rights which are particularly at risk from climate change related setbacks.

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⁸ Guillemot J & Burgess, (2014) J UNICEF Child Rights and Climate Change; Children on the front line