

Introduction

38 Degrees members funded analysis into the potential impacts of allowing fracking in Scotland. It covered scientific research and the views of industry experts. This report contends that the risks to the whisky industry posed by fracking outweigh any economic benefits.

Importance of whisky to Scotland's economy

- Whisky represents 30 per cent of Scottish exports and is worth £5bn per year to the UK economy. The industry employs around 10,500 people in Scotland and pays £1.3bn in Scottish salaries each year. This compared to the potential numbers around fracking: around £50m per year and, at the most, for a limited time, 1,400 Scottish jobs.

Importance of water to creation and marketing of whisky

- The Scotch Whisky Association says on its website that distillers "need pristine water supplies to make whisky".
- Water is one of the key pillars of the Scotch Whisky Association's industry-wide environmental strategy. Distillers across Scotland have pledged to work with SEPA and others to ensure a sustainable and good quality supply of water, because their industry depends on it.
- Major whisky manufacturers, such as Diageo have stated in the past that water "is of prime importance for the production of Scotch whisky: without adequate supplies of pure clean water, the whole distilling industry could not survive".
- VisitScotland says of Scotland's Lowland distilleries "...the Lowlands is one of the most charming and accessible whisky regions in Scotland, encompassing Edinburgh, Glasgow and Fife... Several have opened in recent years, and there are five high-volume grain distilleries, producing whiskies used in some of the most famous blends." Lowland distilleries would lie in Scotland's new fracking belt, and uncertainty around the purity of the water they use due to fracking activity could damage their brand and that of the wider Scotch whisky industry.
- The British Geological Survey highlights the importance of Scotland's water: "Groundwater occurs almost everywhere in Scotland. It is a key water source for drinking, agriculture, industry (including the bottled water and whisky sectors), and recreation (including golf course irrigation), and therefore plays an important role in Scotland's economy. Groundwater is also vital to the health of Scotland's environment, supporting surface water ecosystems, helping to dilute and assimilate contaminants, and mitigating flooding."
- One study on Scottish water noted once groundwater is polluted, it can take centuries to recover.

Fracking's impact on water

- Fracking is a relatively new technology, where thousands of gallons of water, sand and toxic chemicals are pumped into the ground to fracture or "frack" natural shale deposits, in order to release the gas trapped in the rock.
- Many of the chemicals used in fracking are hazardous to human health (Bergmann et al., 2014, in a Health Protection Scotland report).
- Health Protection Scotland found "sufficient evidence" fracking could create lasting water, soil and air pollution from toxic chemicals used in the process. Citing various research papers, Health Protection Scotland found several routes toxic chemicals from fracking could enter the drinking-water supply. Health Protection Scotland concluded: "Pollutants may enter the drinking-water supply through spillages, runoffs from drilling sites or when well casing integrity is compromised allowing leaks through underground fissures in the rock formations."
- Another study discussed the impact on soil: "Pollutants, such as benzene, toluene, other petroleum hydrocarbons, barium, and other metals that may occur in drilling fluids, can be absorbed in or absorbed to soil, creating a residue that will leach with rain and/or snowmelt."

Industry experts concerned

- Charles MacLean, published whisky expert and Master of the Quaich told our researcher: "Water is one of three ingredients used to make whisky, and the purity of Scotland's water is a fundamental part of the Scotch whisky brand. Even the potential of water contamination from fracking in Scotland would be a seriously worrying development for the whisky industry and Scotland's economy."
- Professor Andrew Watterson, Centre for Public Health and Population Health Research, University of Stirling, told our researcher: "The German beer industry has long expressed major concerns that the potential for water contamination from fracking for gas posed a significant risk to their industry. The US Environment Protection Agency has also recently acknowledged there are currently no guarantees fracking may not lead to water pollution by toxic chemicals used in the process. The Scottish Government is considering whether or not to allow fracking for shale gas in Scotland. The Central Belt has been targeted by industry for such developments but fracking may be rolled out in other areas of Scotland. The possibility that fracking could potentially contaminate water at some stage therefore poses a perceived risk, however small that risk turns out to be, to the Scotch whisky industry's reputation. For some Lowland malt whisky distillers, especially around the Central Belt, fracking could prove a public relations disaster. People from all over the world visit Scotland to enjoy its natural beauty, its wildlife and its whisky. The sight, sounds and traffic from perhaps more than 1,400 fracking wells just in Central Scotland could therefore potentially damage its attractiveness to tourists and whisky consumers alike."