



We Won't Let It Happen Here

Africa is on the threshold of a furious debate over fracking—the destructive hunt for gas that could ease the continent's energy shortage. In the front line are the farmers of the Karoo.

BY IGA MOTYLSKA

When Douglas Stern wakes up in the morning, he looks over the beautiful hills of the Karoo, which cradle his livestock farm in the Eastern Cape. This land is close to his heart and defines his life.

On his bad days, he is haunted by the scenes he saw at numerous hydraulic fracturing sites in the United States of America in July. A local agricultural co-operative sponsored his trip to research hydraulic

fracturing or fracking. In Pennsylvania, he saw heartache among people suffering from fracking, which is planned for the Karoo and many other parts of the country.

“They are gagged by the law because they are forced to sign non-disclosure agreements by the various companies’ lawyers, in return for a water supply to replace theirs, which is contaminated by gas. They [gas companies] hold this ‘holier-than-thou’ attitude. It seems they do what they like and won’t be held

accountable, but I won’t let it happen here,” says a determined Stern.

Hydraulic fracturing involves horizontal drilling to create fissures. The insertion of pressurized water, sand and fracking fluids release the gas. Shale gas reserves require a high-volume hydraulic process which uses around 20 million liters of water per fracking incident. In short, it could damage the Karoo’s land and possibly its water.

Stern was born and bred in Graaff-Reinet. This land has been in his



domestic and farming purposes adds up to 1,512,600 liters.

“In my view, it’s the government’s responsibility to tell them to bug off. Our constitution is strong and allows us to earn an honest living and be exempt from such possible water contamination,” he says.

Derek Light, the epitome of a small-town attorney, represents the farmers of Graaff-Reinet, who see themselves as guardians of the Karoo. Many of Light’s 300 landowner clients refer to him as a saint, a humble man and a saviour. He also represents Agri-Eastern Cape, which brings his representation up to thousands of farmers and landowners. The Eastern Cape produces around a third of South Africa’s livestock.

The protestors want to stop the landscape from being littered with drilling rigs. That could happen if international energy companies are granted the rights to exploit gas. “Imagine well pads every three to five kilometres, for thousands of kilometres, which will be interlinked with roads. You’ll have a highway of pipelines all over the country to Mossel Bay, Coega, a Sasol plant or wherever you want it. You won’t recognize this country, it’ll be a wasteland,” he says.

The protestors are not immune from criticism. Their critics ask whether their landownership is valid as they are not ‘traditional’ owners of the property. Light feels that this view is aimed at creating a divide between South Africans and that it has nothing to do with the scientific research in question.

“People tell us to wind our necks in. We’re saying, don’t come with false promises... We don’t want our land harmed to the detriment of all our people. But sadly, people are sometimes persuaded by their political views,” Light says.

It all began in October 2008, when the worried owners of Samara private game reserve, in the Karoo, approached Light. In a lengthy process, Light successfully opposed three of Sunset Energy’s applications for exploration rights before the local regulator, Petroleum Agency South



Africa (PASA). Sunset Energy is the Australian subsidiary of South African Bundu Oil and Gas.

More clients approached Light after Falcon Oil and Gas—a Canadian company—applied for exploration rights elsewhere in the Karoo, spanning 30,000km².

In January 2011, PASA accepted three of Shell’s applications for fracking in three areas in the eastern, central and western Karoo covering 90,000km².

Light addressed landowners from around Graaff-Reinet. It drew the big names: multi-billionaire Johann Rupert, whose father was a founding member of the World Wildlife Foundation; and Dutch Princess Irene, a Karoo landowner. She even had a full audit conducted to prove that she has no links with Dutch company Shell.

“What had been a lonely fight for me and a handful of landowners suddenly entered the public domain and became big,” he says.

Light filed applications against Falcon Oil and Gas and the three Shell applications in March 2011. PASA directed objections against the five applications to regional committees to be adjudicated. It had been swamped with applications concerning parts of KwaZulu-Natal, the Eastern Cape, Northern Cape and the Free State.

Douglas Stern and his wife, Liz



family since 1948; he inherited it, from his mother, in 1979. He gained an agricultural diploma from Grootfontein College in Middelburg. Farming is his life and he won’t allow gas companies to ruin it. In this part of the country, water is life. His daily water usage for

On April 29, 2011, Susan Shabangu, Minister of the Department of Mineral Resources, placed a moratorium on all applications for six months and extended it for another six months to allow for investigation.

The process is determined by the Mineral and Petroleum Resources Development Act (MPRDA) of 2002. According to the act, the applicants should determine how the environment will be affected.

“I am satisfied that in law none of these companies have complied with their legal obligations in terms of the MPRDA. There are, in my view, shortcomings in the processes currently regulated, in that it’s certainly inadequate to deal with a situation of this magnitude. I have very little doubt in my mind that the courts will intervene if the applications are granted under the current circumstances,” says Light.

The government and South African citizens have an obligation to preserve their environment for future generations. While the moratorium passed in mid-February, the investigation’s findings are expected to be presented to cabinet by the end of July. Energy Minister Dipuo Peters is awaiting cabinet’s decision. She has conflicting views about fracking: while it could ensure energy supply security, it needs to be done safely.

“If we need 10 years to decide, then we need to take those 10 years,” says Light.

Light questions how fracking fits into South Africa’s long-term energy planning. Do the benefits outweigh the costs? He suggests the government considers the Mozambican offshore natural gas find as an affordable, alternative source.

Stern agrees: “The gas industry in the United States went from boom to bust. At the moment, gas is being produced at a loss because there’s an over-supply. South Africa can purchase gas far more cheaply than it can produce it.”

Light talks about the report by

respected economist Tony Twine, who died in March, which was commissioned by Shell. “He had to make huge assumptions about the extent of the gas reserves in the Karoo; the price of gas when it comes into production in 10 to 15 years’ time; and the cost of producing it in South Africa. He [Twine] acknowledged that he had to make those assumptions, which rendered the report nonsense because you could equally make other assumptions,” says Light.

The protestors also claim that the industry in the US was regulated poorly; they made fatal errors and are now putting on the brakes so they can re-regulate.

According to Stern, incidents of water contamination and chemical spillage have been reported throughout the US. The claim from gas companies is that there is a natural barrier of impermeable rock between the area you frack and the ground water.

There is also concern about the chemicals that could be used. They sub-contract the process to other companies that want to protect trade secrets, which means that certain chemicals are undisclosed. Some of the chemicals are known carcinogens and toxic: simply put, hazardous to health.

Two recent studies, conducted in Denver by Petron and Howarth, suggest that 4% of the methane gas was leaking. According to Stern’s research conducted in the States, he found that 5% of wells were failing on an ongoing basis, which resulted in further leaking.

Countries should consider renewable energy sources like solar and wind power as clean, alternative energy sources, say Karoo farmers.

“We [farmers] are very conservative people in the Karoo with regard to our water because it is sacrosanct and we have droughts. As a consequence, I never use more than half of my borehole water capacity. My concern is that they will say to me, ‘But you’re not using the other 50%’,” says Stern.

“The rate of recharge is very low

Fracking Finds

This isn’t the first time international energy companies have tried to exploit the Karoo. Petroleum exploration in the Karoo basin occurred during the 1960s and ’70s; interest has been revitalized in recent years with the advent of horizontal drilling. PASA admits that the size of the shale gas reserve in the Karoo basin is currently unknown. Preliminary estimates range from 30Tcf to 500Tcf (trillion cubic feet). One of the greatest unknowns is whether the gas is viable. The gas reserve in the Marcellus reserve in the US was over-estimated by 83%. This may be the case in South Africa. PASA says the Whitehill formation in the southern Karoo basin is rich in organic matter, thermally mature, and has a high silica content, which makes it a lucrative find. However, it is buried deeply and located in a remote and arid region, around 250km from Nelson Mandela Bay, the nearest port.

in the Karoo—scientists tell us it’s between 2-3%—and it could take decades or even hundreds of years to recharge when you take water in those volumes,” says Light.

Once exploration rights are granted, the applicants have to conduct a public participation meetings.

“We were appalled by how sly they were,” mentioned a Karoo farmer who was eager to talk and who had attended a public participation meeting.

“They didn’t even show their faces. They sat in amongst us like cowards. It’s a very large area we represent, so I don’t know every farmer within the district and neither does the next. Derek Light was standing in front of us, by himself, waiting for answers from representatives who, it seemed, didn’t even bother to show up. They wanted to see who they were up against.”

The country awaits cabinet’s final verdict. It’s a case of determined farmers versus equally determined international energy companies, who have deep pockets and big-city lawyers. ⓘ