

Digging for Oil in South Africa

Jan Willem Eggink, general manager for Shell in South Africa, said that fracking for oil in Karoo could produce millions of dollars in direct investment and thousands of jobs for South Africans, which would lower the nation's unemployment rate of about 25 percent.

"There is a huge energy problem looming for South Africa," he added, explaining that energy demand is growing rapidly and that shale gas coupled with renewables could help meet that new demand while also lowering the nation's dependence on Mozambique for gas.

Fracking involves injecting large amounts of water mixed with chemicals and sand at very high pressure deep underground to crack rock and release gas. After fracking, much of the water returns to the surface mixed with toxic chemicals.

Shell's plan is to drill at least six exploratory wells over the next three years, and if the gas reserves appear profitable, start production with at least 1,500 wells several years later.

Martin Bell, the water manager for Shell's Karoo project, said the company planned to recycle as much wastewater as possible, storing it temporarily in closed containers. Drilling waste, which could be especially toxic because the area is high in uranium deposits, will be shipped to disposal plants by pipes or by rail. Water needed for fracking may be brought in by rail from the coast, which is hundreds of miles away.

South African drilling regulators emphasized that producing and using more natural gas would help the country's air pollution problems and avoid increasing its already heavy dependence on coal for electricity, since coal is dirtier than natural gas when burned.

But in this sun-flooded hinterland, where sheep outnumber humans and rusty windmills pumping water dot the horizon, many residents say they would prefer to see the government bring in wind or solar farms.

"It just takes one big spill, leaky pipe or crack underground that their studies didn't catch, and a farm my family has run for four generations is done," said Trenly Spence, as he dug up a clogged irrigation pipe that carries water across his 3,300 acres to where his 3,000 sheep and goats graze. Mr. Spence added that farmers had been frustrated by the lack of information from Shell about the chemicals they would inject into the ground during fracking.

Pressure is mounting to proceed cautiously. South African drilling officials set a moratorium on new licenses for exploration until February so the government could conduct more research. In July, the Advertising Standards Authority of South Africa, an independent agency that sets guidelines for media companies, ruled that several of Shell's advertised claims — including one that said fracking had never led to groundwater contamination — were misleading or unsubstantiated and should be withdrawn.

"The government is under a great deal of pressure to hurry up," said Hein Rust, director of disaster management for the central Karoo region. "But I don't think these decisions should be made on faith or until all the costs are known."

Abridged from *Hunt for Gas Hits Fragile Soil, and South Africans Fear Risks*
by IAN URBINA December 30, 2011 in The New York Times