

UK's nuclear future could ruin Kalahari

Expansion of uranium mining would devastate landscape, say experts

by John Vidal

Windhoek, Namibia

The hidden cost of Britain's new generation of nuclear power could be the destruction of the Kalahari desert in Namibia and millions of tonnes of extra greenhouse gas emissions a year, the *Observer* has discovered.

The desert, with its towering sand dunes and spectacular lunar-like landscapes, is at the centre of an international uranium rush led by Rössing Uranium, a subsidiary of the British mining giant Rio Tinto, and the French state-owned company, Areva, which part-manages the nuclear complex at Sellafield and wants to build others in Britain.

Tomorrow, Ed Miliband, the energy

secretary, will release a batch of plans covering every aspect of Britain's strategy to replace its ageing nuclear power stations.

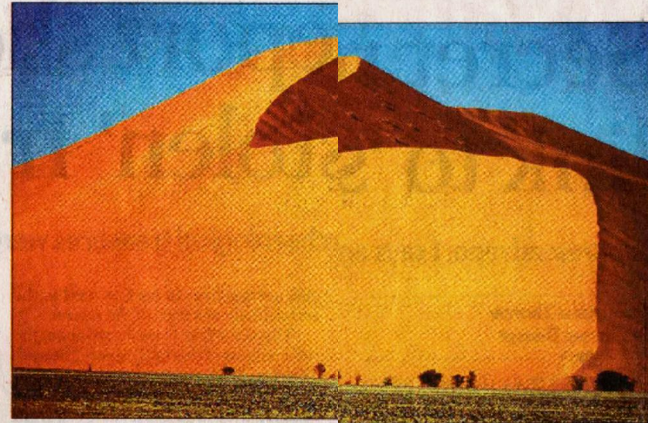
The documents are expected to set out the government's case on the need for nuclear power, based on the demand for secure, low-carbon energy supplies, the suitable sites and designs for new reactors, and how the decommissioning and safe storage of radioactive waste can be guaranteed.

It is not expected to consider the source of the fuel needed for the new reactors. But Rössing is expanding its existing giant mine – which already provides nearly 8% of the world's uranium – into the Namib-Naukluft national park. Areva has leased hundreds of square kilometres of the desert near Trekkopje,

where it plans to build one of the world's largest uranium mines.

At least 20 other mining companies from the UK, Canada, Russia, China, Japan, South Korea and elsewhere have also been given licences to explore thousands of square kilometres of the national park and its surrounds, and six new mines, several of which would be in the park, are at the development stage. Namibia has some of the planet's richest uranium deposits and expects to become the third largest uranium producer and largest exporter within five years.

The mines are all expected to be in open pits up to 200 metres below the desert sands. With their waste heaps, acid plants and giant slurry ponds, they will extend over hundreds of square kilometres. "Large areas of the desert will



Areva plans to mine uranium from the Kalahari.

Photograph by Pete Turner/Getty

be inevitably devastated," says Bertchen Kohrs, director of the Namibian environmental group Earthlife. "They will do immense damage. We fear that there will be major contamination of the ground water supplies."

Britain's claims that a new generation of nuclear power will be low-carbon are also dented by the Namibian government's plans to build a coal-fired power station to provide electricity for the mines. This will use more than 2.4m tonnes of coal a year from South Africa, and could produce more than 10 million tonnes of CO₂ emissions a year.

The UK has justified its planned expansion of nuclear power partly on the basis that it provides low-emission energy. However, the energy used in drilling, blasting, excavating, separating and transporting the uranium to Britain are not taken into account.

Documents seen by the *Observer* suggest the mines would initially consume about 53 million cubic metres of water a year, more than 75% of the water presently supplied by the Namibian state water company. The water will need to be pumped more than 56km to the mines from the coast. The proposed expansion

of the uranium mining would create mountains of waste radioactive sand.

But an Areva spokesman said: "Our post-mining decommissioning plan will ensure that most of the Trekkopje mining area will return to its former wilderness state. The technical process applied to extract the ore will not cause any pollution to the underground water. The desalination plant will be powered by electricity produced from different sources, including non-CO₂-emitting sources such as hydroelectricity."

Rio Tinto said it was addressing the carbon emissions of the mining operations. "Rössing has a greenhouse gas management plan to minimise emissions through improved energy efficiency," said a spokesman.

The demands of global warming and energy security will increase in intensity in the future, and many nations are turning to nuclear power for the solution: more than 450 new nuclear reactors are currently planned around the world. As a result, the outlook for uranium demand remains strong, as does the economic future of the Rössing mine.

Additional reporting by Damian Carrington

