Lignite Mining in the Rhineland

"Garzweiler", "Hambach", "Inden": About unnecessary mammoth projects and their detriments for humans and nature

BUND
FREUNDE DER ERDE
Bund für Umwelt und Naturschutz Deutschland LV NRW e.V.

The Destruction of Landscape

The Rhenisch lowlands are a flat terrain. But now, the largest pits anywhere in Europe are found here. Extensive lignite resources formed over the past 25 million years lie under the fertile cultivated plains. This is where the RWE-Rheinbraun AG extracts lignite in three giant opencast mines. The gaping holes penetrate to a depth of more than 400 metres. To date, Rhenish lignite mining has depleted more than 260 square kilometers of land.

Beginning in 2006, the RWE-Rheinbraun AG plans to excavate an additional redundant hole: „Garzweiler II". This planned lignite opencast mine will cover 48 km², effecting a total destruction of nature, landscape and residential areas.

Approximately 460 million tons of so-called overburden - fertile loess loam, clay, gravel and sand - are removed annually in the Rhenisch opencast mines to extract 100 million tons of lignite.

Only 5 persons operate the bucket-wheel excavators in the hihly-automated mine. The largest excavators are 96 m high and 240 m long. Their capacity is 240 000 cubic metres - every day.

For the transport of lignite and overburdon out of open pits sometimes 450 metres deep, several kilometres long conveyor systems are necessary.

Loess and overburden are shifted to the depleted sections of the opencast mine, where the material is spread by stackers.

In total, some 12.000 jobs are currently maintained in mining and power plants (12/2001). To lower costs, this figure will be reduced to 10 600 jobs by the year 2004. Electricity from lignite power plants often cannot be sold at a profit on the liberalised European market.

The Faith in Growth

An old, dangerous and ultimately fatal dream persists: everything must rise higher, go faster, grow bigger.

In the Rhenish open pits, giant bucket-wheel excavators remove some 100 million tons of lignite a year. Conveyor systems or railways transport the lignite to the nearby power stations. Some 85% of the extracted lignite is used there to generate electricity. At present, the installed capacity of the five RWE-Rheinbraun power plants is nearly 10000 MW. The generating-efficiency of these old power plants is approximately 35%. Around 100 million tons of the climate killer carbon dioxide are discharged annually by the lignite power stations. This outdated technology is incompatible with the prerequisites for a sustainable future.

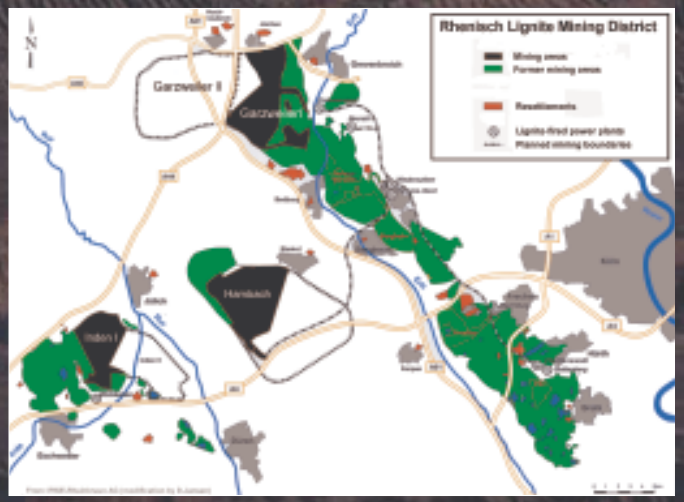
Dehydrating Natural Resources

A large funnel devoid of groundwater is the prelude to a dry lignite pit. To excavate the lignite, it is necessary to lower the groundwater table to a level below the deepest point in the mine. More than 1 000 pumps have been installed for that purpose. They affect not only the mine area but the entire region as well. The impact of this water extraction on the natural environment is immense.

The German-Netherlands wetland area Maas-Schwalm-Nette is already devoid of natural hydrological restoration and must be artificially irrigated. Sensitive ecological systems and the protected animal and plant species they support are acutely threatened. Many humid areas and river springs are running dry or have degenerated in quality due to the loss of natural groundwater. The water regime will be impaired for centuries.

The Hambach forest, an area of 10 000 acres that was first historically documented more than 1 000 years ago will be almost completely destroyed by 2020.

Both, the Maas-Schwalm-Nette Nature Park and the Hambach forest, are protected by the European councils directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.



One cubic meter of water is drained off to mine one ton of lignite or overburden. Every year, therefore 650 million cubic meters of groundwater are pumped out of the open pits.

Technology instead of nature: millions of cubic meter water are piped annually into the wetlands.

In order to protect the fundamental biotopes structure, water is percolated into the soil or discharged directely into streams. Yet with an uncertain outcome.

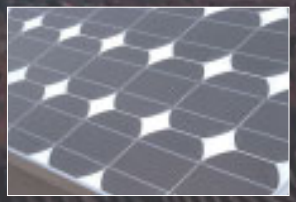
After the mine is worked out, an artificial landscape emerges, that will require thousands of years to recover.

Creating a New Energy Policy

Reducing carbon dioxide (CO_2) emissions is one of the world's most important tasks. Yet each ton of lignite burned produces 1 ton of carbon dioxide. Considering the warming of the atmosphere by greenhouse gases, lignite is the least favourable of all fossil fuels. At the present time, every fourth kilowatt hour of the electricity produced in Germany comes from lignite.

It is time to get serious about climate change. The Kyoto Protocol must be ratified, governments must commit to expanding energy production from renewable sources and they must demonstrate their willingness to accept long-term emission reduction targets beyond the very tentative steps taken at Kyoto.

With a view toward tomorrow's climate, improvements in climate friendly power plant technologies have been absolutely insufficient to date. Although RWE-Rheinbraun is beginning to increase the efficiency of lignite use in individual power plants, lignite production itself will not be reduced. Without decreasing the utilization of lignite, there will likewise be no emission reductions.



Destroying the Work of Life

All components required for an urgently necessary revision of energy policy are already available. Sun, wind, water and biomass are „clean“ sources of energy, that provide distinct economic advantages.

To date, Germany produces about 3,5 % of its electrical energy with wind turbines. Although that may not appear to be significant, this clean and renewable source of electric power is the world's fastest growing energy source. In contrast to the lignite power stations wind turbines are free of CO_2 and can be employed in harmony with the landscape.

Solar energy is clean energy as well. Even when the emissions related to solar cell manufacturing are included, photovoltaic generation produces less than 15% of the carbon dioxide produced by a conventional coal-fired power plant.

Energy conservation is the best of all "resources“, and every one of us can easily contribute to increase its share.

In order to reduce pollution and prevent detriments to the environment and public health, we need to dramatically reduce our consumption of fossil fuels. Fortunately, clean energy sources can help meet energy demands. Scientists and industry experts estimate that renewable energy sources can supply up to half of the world's energy demand within the next 50 years, even as energy needs continue to grow.

From 1948 down to the present day, more than 30 000 people have lost their homes to lignite mining in the Rhenish region. Over 58 villages have been destroyed.

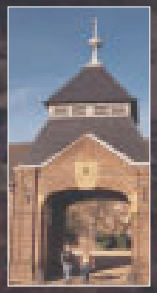
The villages of this area have a long cultural tradition. They are historically documented for over 1 000 years and archaeological finds date back to 6 000 B.C.

Due to the planned expansion of "Hambach“ and "Garzweiler“, until the middle of the century, a further 20 villages or settlements are due to be destroyed. Another 10 000 people are expected to leave their native homesteads.

In promoting lignite mining, RWE-Rheinbraun and the government ignore intangible human rights. Lost values like village communities, neighbourhood and traditions cannot be compensated. Even cemeteries have to give way to the opencast mines, with the graves of the dead being "resettled“ with the living.

With the destruction of villages, the basis of culture vanishes. People lose not only their homes but also their roots – forever.

Of course, RWE-Rheinbraun pays compensation. Some assistance is given for resettlement into new housing. Nonetheless, the financial burden that remains is enormous, while the psychological problems often prove insolvable.



Unified resettlement is never achieved. Many people leave their homes a decade before the excavation equipment arrives, since they are not able to bear the psychological terror. But protest remains. Many people reject leaving their homes in the interest of a dispensible energy project.

The countryside surrounding "Garzweiler“ is expansive and has long been dominated by agriculture. Approximately 7 600 people live here to pursue their conceptions of a good life. Yet in the foreseeable future, an immense hole threatens to dislodge them.

Johannes Dünschede, farmer, Pesch: *„ The soils are among the most fertile of all. Rheinbraun means destruction for me. For a short moment of profit, soils are being destroyed that are thousands of years old.“*

Günther Salentin, vicar St. Lambertus, Immerath: *"Human rights seem not to exist any longer. But we will not surrender. Our decision is not to give up any church properties without sueing."*

Gisela Irving, activist against "Garzweiler II", Holzweiler: *„In Holzweiler I have found my home, my island. I've seen the villages growing. So much is going to be destroyed by resettlement."*

Margarethe Mehl, Spenrath: *„I often ask myself about the reason for "Garzweiler II". Environmental degradation, job reduction, deficiencies of energy policy are no good reasons to loose a native homeland."*

Struggling for a Sustainable Germany

Whether at „Garzweiler II", „Hambach" or „Inden" - the resistance against lignite mining in the Rhineland is unbroken.

Together with the churches, citizens' initiatives and many politically active individuals, the BUND (German Federation for Environment and Nature Conservation) is calling for a sustainable energy policy. The protection of tomorrow's climate must begin at our own door-step. The conservation of nature and countryside is more important than the short-sighted interests of profit.

In various actions, the BUND is filing suit for a sustainable North Rhine-Westphalia. A socially compatible termination of lignite opencast mining succeeded by a solar-based energy efficient economy is the goal. This strategy will contribute more to the quality of life, to innovation and job security.

In the courtroom, the BUND pleads for compliance with German and European environmental laws. It is unacceptable that the opencast mines receive a governmental licence without observing the Council Directive 85/337/EEC on assessment of the effects of certain public and private projects on the environment.

The BUND orchard in the area threatened by the planned opencast mine "Garzweiler II" is a symbol for an economy compatible with nature. It thus symbolizes the need for changing lifestyles and consumption patterns in order to create a sustainable Germany.

Groups of visitors from all over the world are being informed about the impacts of the opencast mining. The Rhenish lignite mining must be viewed not only as environmentally destructive but also as an abuse of human rights. The people's right to life, health, housing and traditional culture, as recognized by the Universal Declaration on Human Rights, is truly being undermined.

About us:

The BUND (German Federation for Environment and Nature Conservation) is the largest German environmental citizens' organisation. It has roughly 390.000 members. BUND is the German member association of "Friends of the Earth International" (FoEI), an international federation of more than 55 independent, national environmental organisations committed to the preservation, restoration and rational use of the environment.

Published by:
Bund für Umwelt und Naturschutz Deutschland Landesverband Nordrhein-Westfalen e.V., Merowingerstr. 88, D-40225 Düsseldorf ◆ Phone:++49 211 30 200 5-0 ◆ Fax: ++49 211 30 200 5-26 ◆ Internet: www.bund-nrw.de/braunkohle ◆ Email: bund.nrw@bund.net ◆ 1st Edition: 09/2002 ◆ Text , Photographs and Layout: Dirk Jansen ◆

The BUND gratefully acknowledges activity funding support from the „Northrhine-Westfalian Foundation for Environment and Development" The publisher is fully responsible for the contents.