Dirty & Dangerous

The Norwegian Government Pension Fund's Coal Investments

urgewald
Germany
www.urgewald.org
Ph: +49 2583 304 920
Heffa Schücking:
heffa@urgewald.org

Framtiden i våre hender /
Future in our hands
www.framtiden.no
Ph: +47 22 03 31 50
Pia A. Gaarder:
pag@framtiden.no
Sigurd Jorde:
sigurd@framtiden.no

Greenpeace Norway
www.greenpeace.org/norway/no
Ph: +47 90 107 904
Truls Gulowsen:
tgulowse@greenpeace.org

For a copy of our research
database please contact: katrin@urgewald.org

Published by urgewald, Framtiden i våre hender and Greenpeace Norway

Author: Heffa Schücking
Editors: Sigurd Jorde, Katrin Ganswindt, Heffa Schücking
Company Research: Nils Bartsch, Katrin Ganswindt
Research Assistance: Johannes Kiefl, Jan Potthoff, Sebastian Rötters, Maike Schmoch
Many thanks to Greenpeace China for the use of their database.
Design: Neue Reklame

We would like to thank the following institutions for
their support:

Grassroots Foundation
OLIN gemeinnützige GmbH

Printed on recycled paper

I. Introduction

The Norwegian Government Pension Fund Global (hence referred to as the ''Pension Fund'' or GPF) is the largest sovereign wealth fund in the world and the largest share-owner in Europe. In September 2014, the GPF's total value equaled NOK 5,534 billion or € 682 billion. How and where Norway invests this money has a global impact.

As the GPF is owned by the state and invested for the future of all Norwegians, there is a strong sense of collective ownership over the Fund in society, and a healthy debate about its investments and guidelines. Over the past year, a discussion has sprung up about the climate impacts of the GPF's investments in fossil fuels. And a majority in the Parliament – which decides the framework and guidelines for the GPF – is leaning towards a divestment from the coal sector. The minority government is less eager to move on the divestment issue, but has commissioned an Expert Group to suggest a policy regarding the Fund's investments in the coal and oil sector.

This dossier takes an in-depth look at the GPF's coal investments. It aims to inform the discussion in two ways. First by analyzing the "coal content" of the Pension Fund's portfolio and tracing its development over time. And secondly, by examining the real-life impacts of some of the Pension Fund's largest coal investments on climate, the environment and people. We reveal that the GPF's coal portfolio is much larger and much uglier than previously acknowledged.

While this dossier focuses exclusively on the Norwegian GPF, we hope it may also be useful for other investors, who are exploring the option of divestment from coal. Divestment is easier said than done, and as always, the devil is in the details. We therefore strive to provide concrete and workable suggestions for a meaningful divestment from the coal sector.

Digging a Highway to Hell

"We are the first generation to feel the impacts of climate change and the last that will be able to prevent it."

Speaker at the New York rally on global climate action day 2014

On September 21, 2014 – two days before the UN Climate Summit meeting – over 300,000 people filled New York City's streets to demonstrate for urgent action on climate change. On the same day, scientists from the Global Carbon Project announced that an estimated 36.1 billion tons of CO_2 – the highest level ever – were pumped into the air last year and that a further rise of 2.5% is expected for 2014.

The prime culprit in the unfolding climate crisis is coal. Perversely, however, it seems the more we hear and negotiate about climate change, the more we mine and burn coal. According to the International Energy Agency (IEA), "more than three-fifths of the rise in global CO_2 emissions since 2000 is due to the burning of coal."[1] And if we want to have even a 50% chance of avoiding run-away climate change, the IEA calculates that 80% of today's coal reserves must stay in the ground.[2]

Market investments are driving in the opposite direction. Recent research undertaken by urgewald and BankTrack on the financial sector shows that underwriting and loans for coal production have increased by almost 400% since 2005, the year the Kyoto Protocol came into force.[3] This unchecked flow of money is fuelling a dangerous expansion of the coal industry. According to the World Coal Association there are 1,199 new coal-fired power plants on the drawing board and global coal production is expected to increase 50% by 2035.[4]

1 Launch of the Medium-Term Coal Market Report 2013, Maria van der Hoeven, 16.12.2013
2 See the "450 Scenario" in "Redrawing the Energy-Climate Map," IEA, 2013
3 "Banking on Coal," urgewald and BankTrack, November 2013
4 "The Public Image of Coal: Inconvenient Facts and

As progress in government negotiations on climate change is still painfully slow, the decisions of investors may play a key role in determining whether our chance of staying beneath the 2°C limit are washed away by a black tide of coal expansion projects. In this dossier, we address the Norwegian Government Pension Fund as one of the world's most influential investors.

The World's Largest Sovereign Wealth Fund

The Norwegian GPF is the largest pension fund in Europe and is owned by the Norwegian Government on behalf of the Norwegian people. It is commonly referred to as the "Oil Fund" (Oljefondet) as its capital stems from the country's petroleum revenues. The Pension Fund was created in a far-sighted act of the Norwegian Parliament in 1990 to counter the effects of a future decline in oil revenue and to safeguard and build wealth for future generations. The value of the GPF has quadrupled since 2005 and now lies at NOK 5,534 billion,[5] making it the world's largest sovereign wealth fund.

In 2004, the Norwegian Government Pension Fund was also one of the first large investors to adopt ethical guidelines and create an independent "Council on Ethics" to evaluate whether investments in specific companies are compatible with the GPF's ethical guidelines. The Norwegian GPF is therefore often seen as a leader in responsible investment, and its decisions have signaling effects on many other investors.

The GPF is managed by a special division of Norway's Central Bank – Norges Bank Investment Management (NBIM) – on behalf of the Ministry of Finance. Currently, 61.4% of the GPF is invested in equities, 37.3% in bonds and 1.3% in real estate.

Political Correctness," Milton Catelin, World Coal Association, 2013

5 Market value of holdings on 30.9.2014. See press release of Norges Bank Investment Management, 29.10.2014

Flood catastrophe in Thailand 2011. Climate change hits the poor the hardest

Photo: Gideon Mendel

II. The GPF and Coal

Norway was not only one of the first countries to introduce a carbon tax, it has consistently been one of the leading proponents for a legally binding global agreement on climate change, and has set itself impressive national targets for a reduction of greenhouse gas emissions.

The GPF is, however, the Mr. Hyde to the Dr. Jekyll of Norway's progressive climate policies. While the Norwegian Government is making extensive efforts to assure that the 2015 Paris Climate Summit results in effective international action, its sovereign wealth fund is a major investor in the coal industry. Using proceeds that originate from oil revenues to invest in an even more carbon intensive fossil fuel is a sure recipe for accelerating climate change.

Although the GPF's manager, NBIM, issued a statement in 2012 on climate change, asking companies to "set clear targets for reducing greenhouse gases", NBIM in no way applies this principle to its own portfolio. NBIM neither monitors nor has reduction plans for the cumulative CO_2 impacts of its investment portfolio. And it has no policy whatsoever regarding coal – climate's public enemy number one.

At the end of 2013, the GPF was a share- or bondholder in 8,213 companies worldwide. As only a small percentage of these companies belong to the coal sector, and as the GPF generally holds only a small equity share in each company, this often obscures the fact that the Pension Fund is one of the investment giants in the coal sector. A study undertaken by the financial research institute Profundo in 2012 ranks the GPF as the world's eighth largest shareholder of the coal industry.[6]

6 "The Largest Investors in Coal and Renewable Energy Worldwide," Profundo, 2012. Profundo's findings were based on a review of 31 coal mining companies and 40 coal-fired electricity companies, which collectively account for 44% of world coal production and 51% of coal-fired generation capacity.

"We have to listen to IPCC. We have no choice but to act now."

Norway's Prime Minister, Erna Solberg at the UN Climate Summit Meeting in New York

Photo: Slava Stepanov

Mine worker in Jharkand, India

Photo: Allison Joyce

Accordingly, the Pension Fund is currently a shareholder in 7 of the world's 10 biggest coal producers, including the two giants China Shenhua Energy and Coal India Ltd, which each produce over 450 million tons of coal annually. The GPF is also invested in 30 of the 40 companies with the largest coal reserves worldwide.[7]

In order to better understand the dimension of climate impacts associated with these investments, let us consider one concrete example. The GPF is one of the three largest shareholders of BHP Billiton, a company that mined 118 million tons of coal last year.[8] When burnt, this coal will lead to emissions of around 292 million tons of CO_2, over five times as much as Norway's total emissions in 2013.[9]

It is time that the Norwegian Government faces the inconvenient truth that its efforts to ensure a safe climate for future generations are being massively undercut by its own sovereign wealth fund.

7 For a list, see "The Carbon Underground," Fossil Free Indexes, April 2014

8 "Coalminers Starting to Count the Cost of Activist Pressure on Funding," Sydney Morning Herald, 24.3.2014

9 The formula for calculating potential CO_2 emissions was taken from the methodology used by the Potsdam Climate Institute. Norway's greenhouse gas emissions totaled 52.8 Mt CO_2 equivalent in 2013.

How Not to Measure Coal Investments

In January 2014, Yngve Slyngstad, CEO of Norges Bank Investment Management, made a statement that was calculated to soothe coal critics in the Parliament. Slyngstad said "Our investments in coal are limited and falling. They have been halved over the past two years."[10] This would be good news if it were true, but NBIM is, in fact, only measuring a tiny portion of the Pension Fund's investments in the coal sector.

As Slyngstad himself specified, the presented figure of NOK 2,5 billion for 2013, only reflects the Fund's ownership in companies NBIM classifies as "coal producers". A substantial part of the world's coal is, however, produced by power companies which operate their own coal mines. And NBIM generally classifies these companies as "utilities". Germany's RWE – the world's ninth largest coal producer – is therefore not counted by NBIM for the simple reason that it also burns the coal it mines.

Another example of just how unreliable NBIM's numbers are is the South African company Sasol, which is classified as an "oil and gas" company in the GPF's list of holdings. Sasol's main business is converting coal into liquid fuel, an incredibly dirty process with a huge CO_2 footprint. Sasol is among the world's top 40 coal miners and is responsible for 12% of South Africa's CO_2 emissions. Simply including these two companies – Sasol and RWE – in NBIM's assessment of its coal holdings, would have raised Slyngstad's numbers from NOK 2.5 billion to NOK 7.25 billion, an increase of 190%!

In short, NBIM is only able to claim a dramatic shrinkage of the GPF's holdings in coal miners, because it is using an extremely narrow definition that excludes many of the largest coal producers found in its portfolio. The big question is therefore: Why is NBIM not measuring the GPF's investments in the coal power industry – the direct source of a large portion of the world's CO_2 emissions? If the point of the exercise is, to assess the GPF's exposure to the coal sector, NBIM's methodology is severely flawed.

Among the main investment areas not covered by NBIM's calculations are:

- **coal-based utilities**
- **the coal-to-gas industry**
- **the coal-to-liquids industry**
- **diversified mining companies that are significant coal producers**
- **the coal transportation industry**
- **specialized coal technology companies**
- **bond holdings in all of the above**

NBIM's statistics also fail to capture significant new investments by companies that are just entering into the coal sector. A case in point is India's GVK, a company that was only recently added to the Pension Fund's holdings. GVK is a utility, which runs several gas-fired power plants, but is currently developing what it calls "one of the largest thermal coal mining operations in the world."[11] Estimates put the price tag for this greenfield mine development at US$ 8.7 billion.[12] Although it is not counted as such by NBIM, GVK is one of many cases where the Pension Fund's investments are fuelling the expansion of the coal sector.

10 Quoted in "Norway's Sovereign Fund Halves Coal Exposure," Reuters, 28.1.2014. While Slynstad did acknowledge that the GPF also has investments of over NOK 77 billion in the utilities sector, he did not divulge the amount invested in in utilities with a significant share of coal-fired power generation.

11 http://www.gvk.com/ourbusiness/resources/coal.aspx

12 "The Outlook for Financing for Australia's Galilee Basin Coal Proposals," Institute for Energy Economics and Financial Analysis, October 2014

How to Count Coal Investments

This dossier aims to measure the real "coal content" of the GPF's portfolio. This is not an easy task, as the GPF's list of holdings is extremely lengthy, and NBIM only provides the name and broad industry classification of each company.

NBIM applies the Industry Classification Benchmark (ICB) system to categorize the GPF's holdings. The ICB system uses 4 basic levels, which range from a broad industry designation such as "Basic Materials" to a specific subsector designation, such as "Coal". ICB defines the latter as companies, whose main source of revenue lies in the exploration or mining of coal.[13] For reasons we do not understand, NBIM chooses to list only the broad industry classification of each company rather than its ICB subsector in the holdings. This lack of information makes it difficult to replicate the numbers NBIM provides on holdings in specific industries. That being said, the ICB system is not really suited to assess holdings in the coal sector as it, for example, does not differentiate whether utilities are using gas or coal as the main fuel for their power plants.

We have therefore undertaken our own research to identify major coal industry players in the GPF's portfolio in 2011, 2012 and 2013. As the Pension Fund has holdings in over 8,000 companies worldwide and as we could only spend a limited amount of time researching each company, our search focused on the "miners and burners", i.e. on companies operating coal mines or coal-fired power plants (or doing both). In addition, we also tried to capture the cutting-edge of massive new investments into the coal sector, as this is where the GPF's investments will most directly contribute to an acceleration of the climate crisis.

The following criteria were applied to determine whether holdings should be classified as part of the coal industry:

- **Companies, whose business is primarily coal-related.**
- **Companies producing more than 22**
- **million tons of coal annually.**
- **Companies with large coal-to-liquids or coal-to-gas investments.**
- **Utilities, if at least 30% of their power generation is coal-based or if at least 30% of their business is coal-related.**
- **Companies with large-scale expansion plans in the coal sector.**

Companies were included in our sample if they met at least one of these criteria. On this basis, we identified 158 coal companies in the GPF's 2013 holdings – a full list is contained in the annex of this report. In the interest of transparency, a detailed pdf compiling our research data can also be downloaded from: www.urgewald.org

We want to point out that the true "coal content" of the GPF's portfolio is likely higher than our results show. Our analysis does not include specialized coal equipment or coal transportation companies, although especially the latter play an important role in the expansion of the coal sector. Also, due to the sheer number of companies in the GPF's portfolio, and the difficulties we encountered, when researching foreign companies that do not publish an English language report, we are certain that we have missed companies that should have been part of the sample. That being said, this dossier is the most comprehensive, independent study that has yet been done on the GPF's holdings in the coal sector.

13 "ICB Industry Structure and Definitions," FTSE, 2012

Our Findings

Based on the above-named criteria, the Pension Fund held assets of over **NOK 82 billion** in the coal industry (equity and bonds) at the end of 2013. This is far and beyond the NOK 2.5 billion NBIM cites for the GPF's investments in coal miners. Of the total NOK 82.2 billion, NOK 68.7 billion are in form of shares and NOK 13.5 billion are held in bonds. As some companies have special financing arms (Sasol Financing International for example), these subsidiaries were treated on par with investments in the mother company.

So how have the GPF's coal investments developed over time? Have they decreased since 2011 as Slyngstad asserted in his statement? The answer is "No". According to our analysis, in 2011 the Pension Fund's coal investments amounted to NOK 72.6 billion, of which NOK 9.9 billion were in bonds and NOK 62.7 billion were in equity. Over the past two years, the GPF's total coal investments have thus **increased** by **NOK 9.6 billion** or 13%. The increase is most pronounced in the utilities sector, an area whose coal content NBIM either doesn't monitor or chooses not to make public. Investments in coal-based utilities went from NOK 22.5 billion in 2011 to NOK 27.8 billion in 2013, an increase of 24%.

But Slyngstad was correct when he asserted that the **relative percentage** of Pension Fund investments devoted to the coal sector has fallen over the past two years. Based on our data, the coal content of the GPF's portfolio dropped from 2.2% in 2011 to 1.63% in 2013. This is, however, due to the enormous growth of the Fund as a whole. The GPF's market value grew from NOK 3,301 billion in 2011 to NOK 5,038 billion in 2013, an increase of over 52%. Its coal investments also grew, albeit more slowly than the rest of the Fund, which is why their relative percentage has dropped.

It seems that coal investments are not only harmful for our climate, but also a bad business choice. Even Slyngstad commented that coal production "is not particularly profitable."[14] So we truly wonder, why is the Fund still invested here?

14 Quoted in "Norway's $800bn Oil Fund Halves Coal Production Holdings," Environmental Finance, 29.1.2014

Coal mining in Kosovo

Photo: KOSID

Analyzing the GPF's recent Investment/ Divestment Choices

When examining the Fund's coal investments from one year to the next, it is difficult to discern which fluctuations are due to active management by NBIM. When, for example, a comparison of the holding lists indicates that the percentage of GPF's ownership in a certain company has dropped, it is still not apparent whether this is because NBIM sold off a portion of the shares or whether the decrease in ownership is due to a new share offering by the company itself.

The only reliable possibility (at least from outside) to cast light on NBIM's management actions is to examine cases where there was complete divestment from a company (i.e. all shares were sold) or where there were brand new investments (i.e. new companies added to the holdings). In order to better understand how NBIM is handling coal-related investments, it is instructive to take a closer look at these cases, perhaps keeping in mind a promise Slyngstad made in regards to the Fund's coal portfolio: "We are concentrating our investments on the companies that we think are continuing this activity in a more sustainable way."[15]

Over the past two years, the GPF eliminated 66 coal companies from its holdings. There were, however, also significant new investments made during this time period.

Among the sample of 66 coal companies that disappeared from the GPF's portfolio since 2011, two groups stand out. The first group consists of 39 Chinese companies. Here, NBIM divested a total of NOK 416 million. But there were also new investments in 8 Chinese coal companies, totaling NOK 536 million. Ultimately, NBIM simply shifted and raised its investments, sinking an additional NOK 120 million into the Chinese coal sector. It is beyond us, why NBIM would think it a good idea to increase coal investments in the country, which is already singlehandedly responsible for 29% of the world's CO_2 emissions.[16]

The second group of companies that stands out in terms of the GPF's coal divestment, are 8 companies involved with coal mining in Indonesia. Six of these companies are Indonesian, one from Thailand and one from the UK. Norwegian NGOs that had criticized these investments as a threat to Indonesia's forests were happy that NBIM in 2013 reacted to their concerns by divesting a total of NOK 174 million.

In the same year, NBIM, however, invested NOK 345 million into the Indian coal sector. This choice seems equally bad as companies like Lanco, Adani and Coal India are involved in a coal rush on Central India's remaining forests, home to many indigenous peoples and habitat for endangered species such as the Bengal tiger and the Indian elephant.

And many of the newly acquired Indian coal companies are particularly ugly. Jindal Steel & Power, for example, is currently under investigation by India's Central Bureau of Intelligence (CBI) on corruption charges, and stands accused of the attempted murder of grassroots activist, Ramesh Agarwal. After Agarwal fought a successful legal battle against a Jindal mining development in Chhattisgarh he was shot by two employees of Jindal's security company.

Decision-makers in Norway should not let NBIM's statements cloud their vision. In absolute terms, the Pension Fund's coal investments have grown and the Fund's new coal investments are just as ugly as its old ones.

15 Quoted in "European Utilities Feel Pressure For Ethical Coal Mining Push," Reuters, 25.4.2014

16 "Trends in Global CO_2 Emissions," PBL Netherlands Environmental Assessment Agency, 2013

The Cerrejón coal mine
in Colombia

The Coal Industry To Norway

Unsurprisingly, the discussion around divestment of the world's largest sovereign wealth fund from coal is making the industry nervous. In January 2014, the World Coal Association called on the Norwegian government to reject the proposal and the world's largest private coal company, Peabody Energy, not only sent lobbyists to Norway, but also launched an international public relations campaign. Peabody's campaign is trying to rebrand coal as the solution to world poverty. Its videos feature babies and small children in developing countries accompanied by the text "We can solve the crisis".

Now that is an interesting claim, considering that in a coal-addicted country like India, the regions with the highest number of coal power plants, show the smallest number of people with access to electricity.[17] Energy from coal-fired power plants can only be distributed where there is a grid, but 84% of people without electricity access live in rural areas. In these places, off-grid or mini-grid solutions using solar, wind or small hydropower are the most cost-effective options.[18]

While the World Bank has warned that climate change will hit the poor the hardest, Peabody isn't too concerned about this. Peabody's annual report says climate change is only a "perceived" threat, and Greg Boyce, the company's CEO thinks: "It's pretty strange that globally, not only the UN, but developed country leaders are spending so much time on, quote, climate change."[19]

Peabody's attempt to "change the conversation" around coal is being master-minded by the infamous PR company Burson-Marsteller. Burston-Marsteller worked for Union Carbide after the chemical company's poison gas disaster in Bhopal, for Blackwater after the Iraqi killings, and organized a "National Smokers' Alliance" for the tobacco industry (It really does look like coal is on its way to becoming the new tobacco). The UK Advertising Standards Authority, in any case, found Peabody guilty of "misleading advertising and false environmental claims."[20] And yes, the GPF owns Peabody shares.

17 "Overcoming Energy Poverty in the Long Run," Bread for the World and Misereor, June 2014
18 "Energy for All," IEA, 2011
19 "Coal's Defender-in-Chief Tries to Shift Debate About Fuel," Bloomberg, 6.11.2014
20 "WWF wins Case Against Peabody Energy," press release WWF, 20.8.2014

Photo: Stephan Suhner/Arbeitsgruppe Schweiz-Kolumbien

III. Coal's Bill

At no time in history has so much coal been mined and burned as today. And the burden this puts on societies goes far beyond CO_2 emissions. At every stage in its life cycle, coal has a dire impact on the environment, on human health and on the social fabric of communities. Handling coal, from mining to combustion to waste disposal leads to contamination of water resources, air, soil and living beings. And the people closest to the mines, power plants or waste disposal sites are those who end up paying the largest part of the bill.

As in India's Sonbhadra district where villages are surrounded by power plants and mines, some of which belong to Lanco and NTPC in which the Pension Fund holds shares. Emissions of mercury, arsenic and lead are slowly, but surely poisoning the area's population. In a shocking report, journalist Priyadarshini Sen describes the region as Zombieland, where it is a common sight to see villagers "amble by slowly, bent, stumbling, their gazes vacant, overcome intermittently by uncontrollable trembling."[21] Worldwide, coal-fired power plants are the biggest emitter of the neurotoxin mercury. Even the cleanest utilities emit fine particular matter (PM 2.5) that can lead to sickness and dysfunction of lungs, heart, brain, and the blood system as well as birth defects.[22]

Even in countries with stronger environmental regulations than India, accidents cannot be prevented. Early in 2013, the U.S. utility Duke Energy spilled toxic slurry into rivers and streams of North Carolina. In the same year, a coal waste flood from the tailings dam of Sherritt International in Canada left the waters of the Athabasca River unusable for days. The GPF holds shares in both companies.

Sometimes it is not about living next to a coal facility, but being in its way. All over the world, people are forced out of their homes to make way for coal. Like the inhabitants of the village Tabaco in Colombia that were set upon by armed security forces while their village was demolished in 2001. Today, Tabaco is a waste disposal site for the Cerrejón mine, but the villagers have still not been resettled. Or the indigenous Shor in Russia, who in 2014 had to stand by as the company Mechel bulldozed their homes and took their ancestral lands for a coal mine. You've probably guessed that the Pension Fund is a shareholder here as well.

But coal offers employment, right? You may have heard that working on an oil platform is one of the most dangerous jobs on earth, but coal mining is responsible for more deaths than the production of any other energy source. Over 30,000 fatalities are on record of coal miners killed by methane explosions, collapsing mines, and other accidents since 1970.[23] And safety specialist Hazardex puts the number much higher as in countries like China many deaths stay unrecorded. Add to this the many work-related illnesses like black lung disease, and it becomes apparent that for the people at the bottom of the work chain, coal mining is a deadly occupation.

If coal is under the ground, even World Heritage sites are in danger. UNESCO has voiced concern over an opencast coal mine that Coal of Africa Limited is developing adjacent to the Mapungubwe World Heritage site in South Africa's Limpopo region.[24] Even more controversial is the proposed coal port extension at Abbot Point in Australia with significant impacts on the Great Barrier Reef, described as "one of the jewels in the world heritage crown". While international outcry over the project has led banks to back away from financing it, the GPF is still a shareholder in the companies involved.[25]

Even when the coal is out of the ground, the problems continue. In countries like South Africa and Russia, hundreds of coal mines are simply abandoned, and toxic discharges remain unchecked, endangering water supplies and human health for decades to come.

The following 6 case studies aim to put a face on some of the GPF's largest investments in the coal industry. They cover different regions and different parts of the coal sector, and are meant to give a glimpse of the true costs of coal. But in the end, anywhere you go you will find that coal is dirty and dangerous and its bill is steep.

21 "Accursed Country," Priyadarshini Sen, Outlook India, 10.11.2014

22 http://www.greenpeace.org/international/en/campaigns/climate-change/coal/Coal-Power-Plants/

23 "Turkish Coal Mine Disaster Cranks up Pressure on Miners, Utlities," Reuters, 14.5.2014

24 "Unesco Voices Concern at Mapungubwe Mining," Mail & Guardian, 8.7.2012

25 The companies are Adani and GVK.

Sasol NOK 1,387,626,121

Sasol is South Africa's second largest corporation and the world leader in coal-to-liquids (CTL) technology. The company was formed as a state enterprise in 1950 to produce synthetic fuels from coal, a technology first used by Nazi Germany to produce petroleum and jet fuel during World War II. As sanctions against the Apartheid regime hampered South Africa's ability to buy crude oil on the international market, Sasol's operations were declared a national priority and for decades received almost unlimited support by the state.

Shortly after Sasol was privatized in 1979, it built two enormous coal liquefaction units in Secunda, about 120 kilometers east of Johannesburg in the Province Mpumulanga. The Secunda liquefaction plant is the largest in the world and its 301-meter high smokestack is the tallest structure in South Africa. In order to feed the plant, Sasol operates one of the world's biggest underground coal mining complexes, producing 40 million tons of coal annually.[27] Coal is brought to the facility on kilometer-long conveyer belts, then crushed and gasified with steam to produce syngas. Once purified, the gas is then liquefied, producing a synthetic crude oil as well as a range of byproducts for the chemical industry.

"Sin" Fuels for our Climate

Secunda's output is gargantuan: it produces 160,000 barrels of gasoline, diesel and jet fuel per day. According to Sasol's own figures some 23% of South Africa's coal usage is for the production of synthetic fuels (synfuels).[28] Liquefying coal to synfuel produces twice as many greenhouse gas emissions as refining fuel from crude oil.[29] Accordingly, Secunda is the world's largest single point source of CO_2 emissions.

26 Quoted in "Alternative Fuels: Coal-to-Liquids' Prospects Dim, but Boosters won't say Die," Greenwire, 5.5.2013
27 Speech by Sasol's CEO David Constable at the inauguration of the Thubelisha Mine Shaft, 22.5.2012
28 "Coal to Liquids at Sasol," Powerpoint presentation held at the Kentucky Energy Security Summit, 11.11.2007
29 "Liquid Coal: A Bad Deal for Global Warming," Sierra Club

Farmer Wuzhu Yunle prays for water after China's biggest coal company appropriated the region's water resources for a coal-to-liquids plant

Photo: Qiu Bo/Greenpeace

While Sasol originally had ambitious plans to build coal-to-liquids plants in countries such as China and India, it recently decided to focus its international investments on gas-to-liquids projects. It applies this technology in its Sasolburg plant, where it switched the feedstock from coal to gas a few years ago. But Sasolburg is much smaller than the facility in Secunda, and coal-to-liquids remains the company's main source of profits.[30]

It therefore doesn't come as a surprise that Sasol opposes the introduction of a carbon tax in South Africa[31] or that Pat Davies, CEO of Sasol from 2005 until June 2011, spoke out against an international treaty on climate just months before the COP17 summit in Durban. "I think we should first understand fully the impacts of climate change before we set hard, legally binding global targets," said Davies.[32] South Africa is the world's 12th largest emitter of greenhouse gases and Sasol's operations account for 12% of the country's emissions. As Sasol continues to increase production at Secunda and just recently acquired new coal reserves to secure its coal-to-liquids operations until 2050,[33] it is hard to see how South Africa will be able to fulfill its commitment to reduce CO_2 emissions by 34% by 2020.

Suing to Continue Polluting

Liquefying coal is an incredibly dirty business. It produces large amounts of toxic sludge and air borne emissions of particulate matter, nitrogen oxides, sulfur oxides and volatile organic compounds such as benzene, which are harmful to human health. Although the government designated the Highveld a priority area for pollution control in 2007, Sasol has continued to emit toxic substances above the limits specified in its license.[34] The report "Slow Poison" found that residents in the Secunda area were subjected to the highest levels of particulate pollution in the Highveld, and criticized the government for its failure to maintain air quality monitoring stations and protect public health.[35]

30 "A New Era for Sasol," Annual Integrated Report 2014
31 CDP South Africa Climate Change Report 2014
32 Quoted in "Sasol Against Binding Climate Pact," BusinessReport, 5.5.2011
33 "Sasol Mining's Coal-to-Liquids Horizon Extending to 2050," Global Mining News, 25.10.2013
34 National Environmental Compliance & Enforcement Reports 2010-11, 2011-12, 2012-13, Department of Environmental Affairs, South Africa
35 "Slow Poison: Air Pollution, Public Health and Failing Governance," groundWork, June 2014

Aerial view of Sasol's Secunda plant

“It’s a big carbon dioxide factory.”

International Energy Agency analyst Lazlo Varro on coal-to-liquids[26]

Sasol is worried about the country’s new emission standards, which are due to come into effect in 2015 and would limit pollutants such as sulfur dioxide and particulate matter. South Africa’s National Environmental Management Air Quality Act was conceived in 2004 and its regulations were announced in 2010 after extensive negotiations with Sasol and other major industrial emitters. Although Sasol has had years of lead time to achieve compliance with these new standards, it announced on May 21, 2014 that it will take South Africa’s Department of Environmental Affairs to court. Sasol not only wants to avoid compliance with the stricter air pollution controls, but wants to have them removed altogether. Critics say that if Sasol wins, it will set the country back 20 years in attempts to curb toxic emissions.[36]

The Norwegian Government Pension Fund holds Sasol shares in value of NOK 1.047.372.299 and bonds in value of NOK 340.253.822. In terms of “bang for the buck” or CO_2 for the krone, it is hard to conceive a more harmful climate investment than using money generated by oil to invest it in a company that converts coal to oil. “Coal liquefaction has the worst climate and pollution record of any industry in South Africa,” says Bobby Peek, director of the South African NGO groundWork. The fact that Sasol is trying to de-rail clean air legislation and advocating against legally binding CO_2 reduction measures is just the cherry on the cake,” he adds. If the Pension Fund is serious about addressing climate impacts, investments in coal-to-liquids have to go.

36 “Sasol’s Pollution Court Battle,” Daily News, 4.7.2014

Photo: Richard du Toit

Coal Gasification in China

NOK

4,604,162,583

When it comes to coal, China is the country of superlatives. 47% of the world's coal is mined here.[37] 81% of China's power is generated by burning coal and the country consumes almost as much coal as the rest of the world combined.[38] All of this adds up to enormous emissions.

China was responsible for over half of the increase in the world's carbon pollution between 2002 and 2012. In 2010 alone, the new coal-fired power plant capacity the People's Republic brought on line was equal to all of Germany's existing capacity.[39] The development of China's coal sector is clearly a make or break for the world's climate. So why is the GPF invested in 20 Chinese coal companies and utilities, most of which have extensive expansion plans for the coal sector?

Smoke over Beijing

China's coal addiction comes at a steep price. In Beijing, the air tastes of coal dust and "blue sky days" are rare. Before leaving the house, residents consult the day's pollution index to check levels of what is called PM 2.5 – tiny airborne particles that penetrate deeply into the lungs and are a leading cause of asthma, heart disease and cancer. Readings below 100 micrograms per cubic meter are deemed good, although they are still 4 times higher than the upper limit set by the World Health Organization (WHO). When an "airpocalypse" strikes, the city is enveloped in poisonous smog and PM 2.5 levels can rise all the way to 755, more than 30 times the WHO limit.[40] The haze is so thick that driving becomes dangerous, flights are cancelled, schools shut down and residents are advised to avoid ventilation and wear masks outdoors. PM 2.5 pollution is estimated to cause 1.2 million premature deaths annually in China.[41]

Public outrage over air pollution has sparked protests throughout the country's major cities and last year finally stirred the government to "declare war" on the toxic haze. As coal combustion is the major cause of China's extreme air pollution, many of the country's eastern provinces have set reduction goals for their coal consumption. But the problem may just be moving west – and getting worse.

Fighting Coal Pollution with even More Coal

In order to clean up air in the cities, the government has fast-tracked approval for coal-to-gas projects in the northwestern provinces. Coal gasification is a process by which coal is converted to synthetic natural gas (SNG). Like the coal-to-liquids technology, it requires large energy and water inputs and generates enormous amounts of CO_2. According to a study recently published in the journal "Nature Climate Change", the life-cycle carbon emissions for SNG generated power are 7 times those of natural gas, and 36% to 82% higher than simply burning the coal for power generation.[42]

In a deal driven by the Beijing Enterprises Group (in which the Pension Fund holds shares worth over NOK 175 million), a municipality in Inner Mongolia will provide 4 billion m^3 of synthetic natural gas (SNG) annually to Beijing. Research by Tsinghua University shows that while this contract will reduce Beijing's coal consumption by 8.94 million tons, it will raise Inner Mongolia's coal consumption by 12.03 million tons.[43] Beijing's coal cap thus becomes Inner Mongolia's pollution burden, simultaneously raising overall CO_2 emissions.

37 "Distribution of Global Coal Production in 2013," The Statistics Portal, www.statista.com
38 "Coal Statistics," World Coal Association webpage, 2014
39 "The End of China's Coal Boom," Greenpeace, April 2014
40 "Bringing Back the Blue Sky Days," Calvin Queck, Gavekal Dragonomics, September 2014
41 "Air Pollution Linked to 1.2 Million Premature Deaths in China," New York Times, 1.4.2013
42 "China's Synthetic Natural Gas Revolution," Chi-Jen Yang and Robert Jackson, Nature Climate Change, October 2013
43 "Report on China's Low Carbon Development," Tsinghua University, 2014.

One Billion Tons the World Cannot Afford

At the moment, only 2 coal-to-gas projects have entered the production phase, but 48 further projects are in planning or under construction. According to a report by Greenpeace East Asia, these 50 coal gasification plants will produce an estimated **1.1 billion tons of carbon dioxide per year**. This is equal to about one eighth of China's current total carbon dioxide emissions.[44] And these projects will lock China into a high-carbon path for decades to come. The Norwegian Government Pension Fund is a shareowner in 9 of the companies leading this doomsday charge towards global warming.[45] While the majority of these companies are from the coal sector, two are petrochemical companies: CNOOC and Sinopec. Sinopec (in which the GPF has almost tripled its holdings since 2011) is planning the largest coal gasification plant of all. It will cost over US$ 10 billion and will be located in the remote northwestern province Xinjiang.[46]

44 "Backgrounder 1: China's Coal-to-Gas Initiative – Statistics and Analysis," Greenpeace East Asia, July 2014

45 The companies are: Beijing Enterprise, China Coal Energy Company, China Shenhua Energy, Sinopec, CNOOC, Datang International Power, Huaneng Power International, Sanyi International and Yanzhou Coal Mining.

Exhausting Water for Coal

The bulk of coal gasification projects are sited in China's Northwest – an arid and ecologically fragile region, in parts already threatened by desertification. Here, water is a most precious resource for rural communities whose livelihood depends on farming and herding. Coal gasification is, however, a thirsty business. It takes six to ten liters of clean water to produce one cubic meter of SNG from coal.[47]

80% of the projected coal-to-gas production is sited in areas that already suffer from severe water shortages, in Xinjiang and the western part of Inner Mongolia. Shi Yuanchuan of the Chinese Academy of Sciences predicts that the huge amount of water required for these plants will cause "a local ecological catastrophe."[48] Human rights organizations such as Amnesty and the Southern Mongolian Human Rights Information Center warn that the coal industry's water grab is leading to intense conflicts with ethnic minorities, who have farmed and herded here for centuries.

The GPF's investments of over NOK 4.6 billion in coal gasification companies are not only hurrying along a water crisis in northwestern China, they are the blackest possible investment for our climate and put us all at risk.

Photo: Chang Qiang/Imaginechina

46 "China's Sinopec to Push on with $10 bln Coal-to-Gas Plan," Thompson Reuters, 4.9.2014

47 "China's Response to Air Pollution Poses Threat to Water," World resources Institute, 23.10.2013

48 Quoted from "Coal-to-Gas Backgrounder 2: Expert Opinions," Greenpeace East Asia, July 2014

Coal India

NOK

107,534,226

Coal India Limited is a giant among coal companies. It accounts for over 80% of India's coal production. In 2013, it produced 462 million tons of coal, making it the world's largest coal miner.[49]

Torching the Earth

The Jharia region in the Indian State of Jharkhand was once a dense belt of forests inhabited by tribal people. Today, Coal India runs a huge complex of underground and open cast mines here, operated by its subsidiary Bharat Coking Coal Limited (BCCL). The region is seared by underground coal fires, perhaps best described in a report in the Smithsonian Magazine: "Rising surface temperatures, and toxic byproducts in groundwater and soil, have turned the densely populated Jharia coal fields into vast wastelands. Subsidence has forced relocations of villages and roads – and then re-relocations as fire fronts advance."[50] Hundreds of thousands of people are affected by these fires. Plumes of smoke come out of every fissure, and in many places the ground is so hot it melts the soles of your shoes. Villagers live in a haze of soot, carbon monoxide and other toxic fumes. "Everyone is sick and life expectancy is very, very low," says activist Ashok Agarwal.[51] BCCL issues no masks or other protective gear for most of its workers, who rarely live beyond 40.[52] As a security guard from Coal India's Rajapur Mine says: "This place seems like hell on earth."[53]

Underground coal fires spew enormous amounts of CO_2 into the atmosphere – around 1.4 billion tons in India alone. And Jharia has the world's

49 "Coal India misses FY14 Production Target at 462 MT," Press Trust of India, 7.4.2014
50 "Fire in the Hole," Smithsonian Magazine, May 2005
51 "India: The Fiery Coalfields of Jharia," The Global Journal, 9.7.2012
52 "Life Expectancy of Coal Miners Below 40 – Jharia," The Mutinous Indian, 16.7.2012
53 Quoted in "The True Cost of Coal – How People and the Planet are paying the Price for the World's Dirtiest Fuel," Greenpeace, 2008

Jharkand India: Underground coal seam fires spread through the region due to Coal India's unsound mining practices

Photo: Sanjit Das

highest concentration of coal seam fires. According to D.D. Mishra, the director of India's Central Mining Research Institute, the Jharia fires cannot be extinguished. "The stumbling block is not lack of technology, but incompetence of BCCL," he says.[54] Ashok Agarwal of the "Save Jharia Committee" says BCCL is actively spreading the fires through the unabated expansion of its opencast mining.[55]

Evicting Tribals

Many of Coal India's operations, especially in Jharkhand, Madhya Pradesh and Chhattisgarh lead to large-scale displacement of India's tribal people, collectively known as "Adivasis". In theory, they are accorded special rights under the Indian constitution. In practice, they are often forcibly displaced when in the way of Coal India's operations. Only two months ago, in September 2014, Amnesty International warned that 5,000 Adivasis were being illegally displaced for Coal India's Gevra mine in Chhattisgarh.[56] Under India's Forest Rights Act, these people must first be consulted and give their consent before forests are appropriated for mining. Eyewitnesses, however, told Amnesty that security personnel from South Eastern Coalfields Limited – a Coal India subsidiary – forcibly evicted them without giving notice or even providing time to collect their belongings.

"We were celebrating Teej (a local festival) with relatives, when I stepped outside and saw that many policemen had surrounded my house," reported Babita Adiley. "I didn't even get a day's notice. When I protested and asked to see an eviction notice, the police dragged me away."

Trashing Tigerland

In 2012, Coal India's CEO S. Narsing Rao stated: "Our future growth has to come from forest areas." India's remaining forest areas are home to some of the world's most spectacular and endangered wildlife, including elephants, leopards and tigers. An analysis by Greenpeace India shows that over 350,000 hectares of tiger habitat is threatened by coal mine expansions in Central India.[57] The Royal Bengal tiger is India's national symbol. Its population has already reached a critical level with only some 1,700 individuals left in the wild. For the tiger to survive,

---

54 "Consigned to Flames," Down To Earth, 30.11.2002

55 "It was Always Burning," Businessworld, 22.6.2012

56 "Indigenous and Dalit Communities at Risk of Forced Evictions in Chattisgarh," Amnesty International, 4.9.2014

57 "How Coal Mining is Trashing Tigerland," Greenpeace India, 2012

it needs large unbroken expanses of jungle and Central India is its largest contiguous habitat. Biodiversity and endangered species, however, mean nothing to Coal India. The company's sustainability officer says: "We have to choose if we want electricity or we want tigers."[58]

Breaking the Law

When it comes to Coal India, it is almost hard to find a law the company has not broken. In 2010, an investigation by the Haq Centre for Child Rights found children working in Coal India's mining pits in Hazaribargh.[59] In September 2011, India's Comptroller and Auditor General found that Coal India was running 2/3 of its mines without environment permits.[60] In May 2012, 43 mines run by Coal India's subsidiary BCCL were served closure notices by the State Pollution Control Board. In the same month, Coal India subsidiary Mahanandi Coalfields was fined US$ 237 million for illegal coal extraction.[61]

All of these facts were well known, when the GPF bought Coal India shares in 2013. The acquisition of shares worth over NOK 100 million in what is arguably the world's dirtiest coal company, throws a dire light on the due diligence practices of Norges Bank. As the British newspaper the Guardian wrote on Coal India's share offering, this is a deal for investors, "who are indifferent to the issues of climate change, forest destruction and human rights."[62]

Coal Mining in Central Kalimantan, Indonesia

58 H.B. Shinde, Environment Officer of Coal India subsidiary Western Coalfields Limited, quoted in: "Undermining Tadoba's Tigers," Greenpeace India, November 2011
59 "India's Childhood in the "Pits"," Haq Center for Child Rights and Dhaatri Resource Centre for Women and Children, 2010
60 "Coal India Operating 239 Mines without Environmental Clearance," Economic Times, 9.9.2011
61 "High Risk, Low Return," Greenpeace Investor Briefing on Coal India, 2013
62 "Goldman and Deutsche back India Coal despite their Environmental Standards," The Guardian, 1.10.2013

BHP Billiton NOK 17,350,703,043

At the 2013 shareholder meeting of BHP Billiton, climate concerned investors made a splash by putting forward their own candidate for a seat on the board.[63] On the face of it, Ian Dunlop's career record made him seem like someone who would fit right in with the current leadership of the Anglo-Australian mining giant. He is a former senior executive of Royal Dutch Shell and a former chairman of the Australian Coal Association. Today, however, Dunlop is one of the most vocal critics of what he calls "corporate Australia's denial of climate change," and posits that BHP Billiton needs to stop sinking capital into high-carbon assets like coal.[64] Clearly not a man BHP Billiton's board wanted in its midst, and accordingly, it asked shareholders to vote down Dunlop's nomination.

BHP Billiton is one of the world's "carbon majors". It is ranked as the 20th largest global carbon polluter, accounting for 0.52% of accumulated man-made greenhouse gas emissions.[65] And the company's leadership is adamant that coal remains a key pillar of its business strategy. Last year, the mining giant produced 118 million metric tons of coal, making it one of the world's largest producers.

Most of BHP Billiton's coal is currently produced in Australia, South Africa and South America. Through its IndoMet Poject, BHP Billiton is also developing new coal mines in Indonesia.[66]

In 2013, the Norwegian NGO "Future in Our Hands" (FiOH) published a study criticizing the GPF's investments in the Indonesian coal sector as coal is one of the main drivers of deforesta-

63 "BHP Fights Board Seat for Climate Change Activist," Wall Street Journal, 20.11.2013
64 "BHP Billiton's Stroll towards Oblivion," Ian Dunlop, published in Business Spectator, 14.11.2013
65 "Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers 1854–2010," Richard Heede, Climatic Change, November 2014
66 BHP Billiton has a 75% share in IndoMet. The remaining 25% are held by the Indonesian company Adaro Energy.

Photo: World Development Movement

tion in the country.[67] The report was embarrassing for the Norwegian government as it is simultaneously trying to "save" Indonesia's forests through its International Climate and Forest Initiative. Norway has pledged up to NOK 3 billion annually to reduce deforestation in several target countries, of which Indonesia is one.

In the wake of FiOH's report, the GPF sold its shares in 8 companies operating coal mines in Indonesia. But BHP Billiton stayed in the portfolio and is currently one of the GPF's largest investments, totaling over NOK 17 billion in shares and bonds.

Eating into the Heart of Borneo

BHP Billiton's IndoMet Project is located in Kalimantan, the Indonesian portion of the island of Borneo. While most of East Kalimantan's forests have already been turned into open pit coal mines or palm oil plantations, the forests of Central Kalimantan are still mostly intact. BHP Billiton is now at the forefront of a coal rush into the province. Its concessions lie within the "Heart of Borneo", a vast rainforest harboring 6% of the world's biodiversity, including rare and endangered species such as orangutans, pygmy elephants, the rhinoceros and clouded leopards.[68]

The IndoMet concessions span an area of 350,000 hectares, and if developed will be the single largest coal mining complex in Indonesia. BHP Billiton is already developing the first mine, called Haju and expects initial production to start in 2015.[69] Infrastructure development is also underway, including road works and a port along the Barito River, upon whose water hundreds of thousands of people depend for their daily needs.

The forests in the upper Barito Basin are home to the indigenous Dayak, and provide them with food, medicinal plants, numerous small-scale forest products and timber for their homes. "We live in the forests these mines will clear, we drink from the rivers these mines will pollute. If BHP Billiton continues with its plans for open-cut mines, it will be a disaster for my people," says Arie Rompas of the Dayak Siang.[70] "We are being sacrificed to dig out this coal, but we are also the first victims of climate change," says the Dayak lawyer Itan Kussaritano.[71] He reports that weather and flooding patterns in Kalimantan are already shifting, making it difficult for farmers to predict the timing or intensity of monsoon rains. "It seems crazy that BHP Billiton is developing new coal mines, while climate science tells us the coal must stay in the ground."

Bringing Thirst to the People of La Guajira

The Cerrejón mine in Colombia's La Guajira district covers an area of 69,000 hectares. It is the largest coal mine Latin America's and is owned by the big multinational mining companies BHP Billiton, Anglo American and Glencore Xstrata.[72] The GPF is invested in all 3 companies.

La Guajira is a harsh, semi-arid place and about half of its population is made up of indigenous groups, whose settlements lie along the region's sparse water sources. When Cerrejón began its operations in the 1970s, the government promised it would be "an engine for development". While the mine has indeed brought immense riches for its owners, statistics from 2013 show that over 50% of La Guajira's population lives below the poverty line.[73] For local people, the mine is an insatiable monster devouring their most precious resources: land and water.

Especially hard hit are the indigenous Wayúu in the South of La Guajira. The mine has already destroyed their sacred sites and taken away most of their traditional lands. Now, it is also taking away their water. The Ranchería is the only remaining river in the area and the lifeline of the Wayúu's existence. Management plans indicate that Cerrejón extracts 17 million liters of water from the Ranchería each day just to water down the roads and control the dust where its trucks travel.[74] Many of the smaller waterways have long ago disappeared or become unusable. Some were diverted to the mining complex,

67 "Coal and Climate in Kalimantan – Norwegian Interests in Indonesia's Environmentally Damaging Coal Expansion," Sigurd Jorde, The Future in Our Hands, April 2013
68 "BHP Billiton's IndoMet Project: Digging Deep into the Heart of Borneo," Down to Earth, London Mining Network, World Development Movement, WALHI and Friends of the Earth Australia, October 2014
69 "Indonesia Developing Mega Coal Mine Five Times Larger than Singapore," David Fogerty, mongabay.com, 20.10.2014
70 "BHP Billiton in Indonesian Borneo: The Coal Disaster Waiting to Happen," Arie Rompas, ABC Environment, 19.11.2013
71 Speech Itan Kussaritano at Allianz AGM, May 2012
72 BHP Billiton holds 1/3 of Cerrejón shares.
73 "Colombia Poverty Figures Show Harsh Regional Inequality," Colombia Reports, 3.1.2013
74 "The Thirst of Coal: Structural Causes of Drought in La Guajira, Colombia," London Mining Network, 12.9.2014

Central Kalimantan, Indonesia: Villager whose community has lost most of its land to BHP Billiton's IndoMet project

Photo: World Development Movement

the water cannot be used, even for agriculture. Thirst and hunger have become a fact of life here: 50% of indigenous Wayúu children are severely undernourished and childhood mortality is high.[75]

"For us mining is misery (...) and comes at the expense of huge loss of human life," said Yasmin Romero Epiayu, a leader of the Wayúu people to BHP Billiton shareholders at the company's 2013 annual meeting.[76] Her plea fell upon deaf ears – BHP Billiton holds fast to its plan to expand production at Cerrejón by 25%.[77]

Some investors like the University of Glasgow have begun to pull their stakes in BHP Billiton.[78] Other investors like CalPERS, the largest pension fund in the U.S., or Local Government Super, a US$ 7 billion Australian pension fund, are trying to change the company by putting forward candidates like Dunlop, or asking it to exit the coal sector.[79] So, where is the Norwegian GPF in all this? Well, certainly not on the side of affected communities or climate concerned investors. While NBIM – which exercises the GPF's voting rights – names climate change and water management as strategic focus areas for its ownership activities, its voting records indicate otherwise. NBIM not only voted against Ian Dunlop at BHP Billiton's annual meetings 2013 and 2014. On every single agenda item, NBIM toed the company line, supporting BHP Billiton's rush towards climate armageddon.

75 "La carta de una escritora Wayúu a Santos," El Espectador, 13.4.2012
76 "Mining is Misery for Us, says Colombian Indigenous Leader," London Mining Network, 27.11.2013
77 "Expansion of Cerrejon Coal," press release BHP Billiton, 18.8.2011
78 "BHP Billiton to Face Grilling from Coal-Impacted Communities," World Development Movement, 22.10.2014
79 "US Pension Fund CalPERS backs Climate Change Activist's Bid for Spot on BHP Billiton Board," ABC News, 13.11.2013

Europe's Lignite Miners NOK 5,558,930,601

In August 2014, more than 7.500 people clasped hands to form a human chain across Germany and Poland's border. The chain ran from the village Kerkwitz in eastern Germany through streets, forests and even the River Neisse to the village of Grabice in western Poland. Both villages and, in fact, the whole region is threatened by the ever-growing lignite mines of the Polish utility PGE and Sweden's Vattenfall.

Their newest mine expansion plans will displace around 3,000 people on both sides of the border.[80] On the German side, this region is called Lusatia and is homeland to the Sorbs, a distinct Slavic minority, with its own traditions and language, which settled in this region over 1,000 years ago. Their villages survived wars, fascism and communism, but are now being demolished for lignite quarries.

The Lords of Lignite

The majority of PGE's shares are held by the Polish government, a government that prefers black to green when it comes to energy options. 83% of Poland's electricity is produced by burning coal. As if this were not enough, the government is planning to build 11.300 MW of new coal-fired generation.[81] Almost 70% of the coal PGE burns is lignite.

In Sweden, the name Vattenfall ("Waterfall") may seem appropriate, but in Germany Vattenfall is associated with destroyed landscapes and belching smokestacks. 80% of the electricity Vattenfall produces in Germany is lignite-based.[82] The GPF currently holds over NOK 490 million in Vattenfall bonds.

80 "Tage des Zorns," Sächsische Zeitung, 21.8.2014
81 http://bankwatch.org/our-work/projects/coal-fired-power-plants-poland
82 Vattenfall Annual Report 2012

Lignite-fired power plant of RWE, Europe's biggest CO_2 emitter

Photo: B. Arnold

RWE's lignite mine
Hambach, Germany

Europe's third "lord of lignite" is the German utility RWE, which mines around 100 million tons per year in 3 huge opencast mines in western Germany, between Cologne and Aachen. One of them is the Hambach mine, Europe's biggest hole with a depth of more than 450 meters and an operating surface of 40 square km. If RWE´s huge bucket-wheel excavators keep going till 2040, over 5,000 people will be displaced and one of Germany's oldest forests destroyed.[83]

The Dirtiest Coal

Collectively, these three companies mined 215 million tons of lignite in 2013, more than half of Europe`s total annual lignite production. Lignite, also commonly referred to as brown coal, is the dirtiest and lowest grade of coal. As its low calorific value and cheap price make it unprofitable to transport lignite over large distances, it is almost always burned close to the mines. So the population living in these areas is doubly cursed, first by the mining and then by the pollution.

Lignite is excavated through strip mining. After villages are demolished and their inhabitants moved, the surface of the land is stripped of vegetation and soil. Ages after such a mine is closed, the deep cuts in the landscape will still be visible, the water balance of the region still disturbed, and unexpected subsidence stays a permanent threat.[84] Appropriately, the German word for these damages (Ewigkeitskosten) means in translation: "eternity costs".

But all of society pays a steep price for brown coal. The health bill for generating electricity by lignite is higher than for any other energy source, says the Health and Environmental Alliance (HEAL). HEAL is a European non-profit organization representing health professionals and patients. Its research on coal concludes that the largest share of damaging industrial air pollution in Europe stems from coal-fired power plants. Emissions of particulate matter (PM 2.5) from these plants account for 18,200 premature deaths and about 8,500 new cases of chronic bronchitis each year.[85]

Burning lignite also results in the highest CO_2 emissions per unit of energy generated. And accordingly, PGE, RWE and Vattenfall operate Europe's biggest CO_2 factories.[86] First place goes to PGE's Belchatów power station with annual emissions of 37 million tons of CO_2. Next in line are RWE´s Neurath and Niederaussem power plants and then Vattenfall´s facilities in Jänschwalde and Boxberg. In 2013, these 5 power plants emitted a total of 147 million tons of carbon dioxide, an amount almost 3 times as high as Norway`s annual CO_2 emissions.

The GPF is heavily invested in Europe`s lignite industry. Not only in the big 3 (PGE, RWE and Vattenfall), but also in the Polish utilities Tauron and Ze Pak (Poland´s second biggest lignite miner) as well as the Czech utility CEZ and Greece's Public Power Corporation. These investments show that in spite of NBIM's laudable statements, its management of the Fund is not about preventing climate change – it is about making our climate change.

A Giant Topples

The GPF's biggest lignite investment is RWE, in which the Pension Fund holds 2.07% of shares. RWE shares have seen a spectacular fall in value. Since 2008, share prices fell by 63%. And at its last annual meeting, RWE announced a debt load of over € 30 billion. In a country famous for its "energy transition", RWE virtually dug a hole for itself by piling up debt to build new gigantic coal-fired power stations and enormous lignite mine extensions. These power stations may never recoup their investment costs as renewable energy is quickly pushing them out of the market. Once renewables enter the picture, lignite has no future neither economically nor environmentally nor in terms of its public acceptance. So why is the GPF still betting on yesterday's fuel?

83 http://www.bund-nrw.de/hambach
84 "Kostenrisiken für die Gesellschaft durch den deutschen Braunkohletagebau," Greenpeace, May 2014
85 "The Unpaid Health Bill – How Coal Power Plants Make us Sick," HEAL, March 2013
86 "Europe´s Dirty 30 - How the EU´s Coal-Fired Power Plants are Undermining its Climate Efforts," Climate Action Network (CAN) and others, June 2014

Photo: Paul Corbit Brown

Blowing up Mountain Tops NOK 2,523,109,387

Imagine clear crisp air on a spring morning up in the Norwegian mountains. A wide panorama, peaks and ridges stretching as far as the eye can see. A crystal clear river winding through the valley beneath you, slowly making its way toward the sea. Enjoying the peace of undisturbed wilderness, you watch a lemming that bounces out from behind a rock, spluttering with rage.[87] Suddenly a deafening series of blasts cut through the air. Dust clouds emerge on the horizon, and you feel the taste of dirt on your tongue, the smell of dynamite in your nose. Once the dust settles, the landscape is forever changed. It is painful to see the gaping wound where an entire mountain peak has been blasted away. The valley is now filled with its debris, and if you were to wait long enough, you would see the stream change its color from blue to brown. The water carries overburden, blasting agents and toxic dust, some of which will be left on its banks between here and the sea.

Noah´s Ark on Coal Mountain

This nightmare is real, but not in Norway. It is taking place in the eastern U.S., in a region known as Appalachia. Appalachia is North America's oldest mountain range, and scientists call it a "Noah´s Ark of biological diversity".[88] Nearly 10,000 species are found here, with more discovered each year.[89] Its flagship species are

87 Text from "Norway´s environmental targets," p.22, Norwegian Ministry of the Environment, 2011
88 "Are Endangered Species being sacrificed for Coal in Appalachia?," Scientific American, August 2009
89 http://highlandsbiological.org/nature-center/bio-

Photo: Maria Tama

Before and after in West Virginia, USA

Photos: Paul Corbit Brown


Tap water of a community living near a mountaintop removal site

Photo Paul Corbit Brown

mammals like the Black Bear or the endangered Carolina northern flying squirrel, which roam through the mountains' dense forests.[90] But the biggest treasure is found within the waterways of Appalachia, a hotspot for endangered aquatic species. A multitude of rivers and streams spring from this mountain range, and are habitat for 10% of the world's salamander and freshwater mussel diversity.[91] Great Smokey Mountain National Park, the "Salamander Capital of the World"[92] sits right in the middle of one of Appalachia's central coal mining regions.

The Curse of Coal

For over 150 years, underground coal mining formed the backbone of the region´s economy, but in the 1980s mining companies hit upon a quicker and cheaper method of extracting coal, which left most of the workforce without employment. They call it "mountaintop removal", or for short: MTR. Mountaintop removal is the most brutal form of coal mining. It entails blasting off the mountaintops, and discarding the debris in neighboring valleys and streams in so-called "valley fills". Since the 1980s, 500 mountaintops have been blown up, over 5,000 square kilometers of dense forest clear-cut and more than 3,000 kilometers of streams filled with debris in Appalachia.[93] While Norway`s nature is threatened by tourism, Appalachia is being buried by the coal industry.

While this type of mining is illegal in most parts of the U.S., in Appalachian states like West Virginia and Kentucky politics are dominated by the coal industry. "The coal industry is the largest landowner in the state, finances the election campaigns of its favored candidates and more or less writes the laws passed by our legislature," says Paul Corbit Brown, director of the West Virginian NGO "Keeper of the Mountains".[94] Little attention is paid to the U.S. Federal "Clean Water Act" in these States, and governors like West Virginia's Earl Ray Tomblin, see the U.S. Environmental Protection Agency (EPA) as the enemy. In his address to the State speech January 2014, Tomblin vowed: "I will never back down from the EPA, because of its misguided policies on coal."[95]

"Cancer here is as common as a cold"

Maria Gunnoe, Goldman Prize winner, West Virginia

But mountaintop removal is not only destroying forests, rivers and a unique landscape, it is also taking lives. Coal is a slow poison: From the val-

diversity-of-the-southern-appalachians/
90 http://www.discoverlife.org/co/
91 Southern Appalachian Biodiversity Institute – www.sabioline.org
92 http://www.nps.gov/grsm/naturescience/amphibians.htm
93 "Final Programmatic Environmental Impact Statement on Mountaintop Mining/Valley Fills in Appalachia," EPA 2005
94 Interview with Paul Corbit Brown, urgewald, May 2014
95 "Chemical Valley – The Coal Industry, the Politicians and the Big Spill," The New Yorker, 7.4.2014

ley fills, selenium, mercury, cadmium and other heavy metals leach into the rivers and streams that are a water source for millions.[96] Toxic dust from the blasting gathers in people's lungs. Over 25 peer-reviewed studies show that communities living beside these mining sites are more likely to suffer from heart, lung, liver and kidney diseases, and to bear children with birth defects.[97] These studies estimate that environmental pollution by mountaintop removal mining causes more than 4,000 "excess deaths" annually in Appalachia. "We are left with the shortest life expectancy of anywhere in the United States," says Corbit Brown.[98]

Times are a Changing

For years, local citizen's initiatives and NGOs have fought mountaintop removal mining and documented its frightening toll on water and health. Increasingly, this message is being heard in the media, on the streets, in shareholder meetings and in the courts. In March 2014, the two top MTR miners, Arch Coal and Alpha Natural Resources were fined for contaminating water supplies. Alpha had to pay US$ 27.5 million, the highest pollution fine ever delivered by the U.S. Environmental Protection Agency. Alpha was found to have violated water permits in over 6,200 instances across 5 Appalachian states.[99] As part of the settlement with the EPA, the company also has to spend over US$ 200 million in cleanup operations.

The Norwegian Government Pension Fund is a shareholder in Arch Coal and Alpha Natural Resources as well as six further mountaintop removal companies.[100] Even before Alpha's record fine hit the headlines, the company's transgressions were well known. In 2011, it was already voted "worst mining company of the year" by RepRisk.[101] Cases like this, show that the Pension Fund's standards and due diligence practices are failing to weed out even the blackest sheep in the corporate coal herd.

Many banks are far ahead of the Pension Fund and have realized that MTR's devastating impacts and increasing litigation risks make mountaintop removal companies a "no go". JP Morgan Chase, UniCredit, Wells Fargo, Royal Bank of Scotland and BNP Paribas all either exclude mountaintop removal in their standards or have made commitments to phase out their transactions for major MTR producers.[102]

"Mountaintop removal is a barbaric practice," says Corbit Brown. "And if Norwegians truly love mountains, they need to make sure that their Pension Fund bans these investments."

Note on NBIM

While the coal industry is by its very nature an industry with a heavy environmental and social "bootprint", we were nonetheless surprised to see just how bad some of NBIM's investment decisions have been. We could see no sign that NBIM is in some way discriminating against companies that use controversial mining practices, fail to have mine closure and rehabilitation plans, or simply dump poisonous coal ash from power plants into the environment. We saw no sign that NBIM is somehow taking note of social impacts and weeding out companies that abuse human rights, displace indigenous peoples or deprive local communities of water access. We found no indication that NBIM avoids companies that are destroying unique forests and protected areas or routinely violating environmental regulations. Even without taking climate considerations into account, we found many companies that should never have entered the GPF's portfolio.

When viewing the selection of companies in the Fund's coal portfolio, there is also no sign that NBIM is taking climate impacts into account. On the contrary, we find NBIM making large investments into lignite-based utilities, coal-to-liquids and coal-to-gas companies – the very worst parts of the coal sector when it comes to CO_2 impacts. While we do not have enough information to evaluate NBIM's ownership activities, the data we have "dug out" of the GPF's portfolio casts a dire light on NBIM's ability to assess the environmental, social and climate impacts of its investments.

96 "The environmental costs of mountaintop mining valley fill operations for aquatic ecosystems of the Central Appalachians," Bernhardt et al., 2011

97 "Summaries of research studies showing public health consequences of Appalachian coal mining," Michael Hendryx, PhD, March 2013

98 Speech at Crédit Agricole Shareholder Meeting, Mai 2014

99 "Coal Firm to Pay Record Fine for Water Pollution," AP, 5.3.2014

100 The other six are Mechel, TECO Energy, Consol Energy, Walter Energy, ArcelorMittal and Cliffs Natural Resources. The latter two are not among the companies listed as part of the coal portfolio in our data, as they didn't meet the criteria we used to define the sector. We have, however, included them in the calculations for this case study due to their role in mountaintop removal.

101 "Most Controversial Mining Companies of 2011," RepRisk March 2012

102 See for example: "Sector Policy Mining," BNP Paribas

IV.

Divestment from Coal

"Investing is all about the future."

Yngve Slyngstad, The Lehmkuhl Lecture 2013

On October 17, 2014, Pacific islanders from 12 nations paddled into Australia's Newcastle coal port to fight for their future. Newcastle is the world's largest coal handling facility, and Australia is the world's second largest coal exporter. "The coal which leaves this port has a direct impact on our culture and our islands. We will not stand by as the coal industry sinks the future of our islands," said the "Pacific Climate Warriors" before setting off in traditional outrigger canoes and kayaks to blockade the enormous coal freighters moving in and out of the harbor. The Islanders were joined by hundreds of Australians on surfboards and in small boats, protesting plans to expand the country's coal production.[103]

Resistance against the coal industry has become a global phenomenon. In August 2014, Tibetans protested against coal mining in sacred sites,[104] and German and Polish citizens formed a cross-border human chain against lignite mining. In September, climate activists in the UK blocked a freight train carrying Russian coal to a British power station,[105] and forest dwellers in India celebrated a Supreme Court order that deemed licenses for 214 coal blocks illegal[106]. In October, Appalachians held a "Mountain Justice Summit" to protest against mountaintop removal, and as we write this dossier, Filipinos are staging a 1,000-mile march for climate justice and against coal-fired power.[107] Norwegian citizens reading about these protests would be surprised to find out that their "oil fund" is an investor in most of these coal developments.

Mountains of Coal

While the sympathies of many Norwegian citizens are likely with the Pacific Islanders or protesters in Tibet and Appalachia, money from Norway's Pension Fund is helping to heap up mountains of coal. If we add up the annual production numbers of the 158 coal sector companies identified in the GPF's 2013 portfolio, the sum is enormous: **3.3 billion tons of coal**. The World Coal Association puts global coal production at 7.8 billion tons for 2013.[108] This means the GPF is invested in companies that collectively account for **42%** of the world's coal production. While the Norwegian government is doing its best to limit global warming to 2°C, its Pension Fund is clearly playing for the other team.

The recently published fifth IPCC assessment report warns that "Emission patterns that limit temperature increase to no more than 2°C require considerably different patterns of investment".[109] At the press launch of the report, UN Secretary General Ban Ki-Moon made an explicit plea to pension fund managers and insurance companies: "Please reduce your investments in coal (...) and move to renewable energy."[110]

Both parts of Ban Ki-Moon's message are important. Increasing renewable energy investments is good and necessary, but if investors simultaneously continue pouring money into high-carbon sectors, our climate will still be wrecked. The coal industry has seen enormous growth over the last decade – growth that was only possible because investors and banks supplied the necessary capital. If the GPF and other large investors continue channeling capital into coal power and coal mining infrastructure, they will lock in future emissions our societies cannot afford. More renewables is therefore not enough – leaving behind coal must also be part of the answer.

Divestment in the Air

Over the past two years, the movement advocating divestment from fossil fuels has become

103 "Not Drowning, Fighting: Pacific Climate Warriors Blockade Australian Coal Port," Common Dreams, 17.10.2014
104 "Tibetans Protest Against Coal Mining in Nangchen County," Radio Free Asia, 7.8.2014
105 "50 Activists and a Polar Bear Halt UK Coal Train," Common Dreams, 23.9.2014
106 "Greenpeace Lauds India Court Ruling on Illegal Coal Allocations," Reuters, 25.9.2014

107 http://350.org/35327/
108 "Coal Facts 2014," World Coal Association
109 "Mitigation of Climate Change, 5th Assessment of the IPCC, Chapter 16: Cross-Cutting Investment and Finance Issues," IPCC, 2014
110 Quoted in "IPCC: Rapid Carbon Emission Cuts Vital to Stop Severe Impact of Climate Change," The Guardian, 2.11.2014

a notable force. Hans Joachim Schellnhuber, founding director of Germany's esteemed Potsdam Institute for Climate Impact Research calls the divestment campaign "the most important action that ever happened on climate change."[111] And according to research done by Oxford University, the movement is growing much faster than campaigns that targeted apartheid, tobacco and controversial weapons.[112] 180 foundations, religious organizations, health institutions and local governments as well as hundreds of wealthy individual investors have pledged to sell assets tied to fossil fuel companies from their portfolios and invest in cleaner alternatives. All in all, they have pledged to divest assets worth more than US$ 50 billion from their portfolios, according to Arabella Advisors.[113]

Large investors have also begun to move. One of the first was Storebrand, a major Norwegian pension fund and insurance provider, managing US$ 74 billion in assets. Since last year, Storebrand has sold out of 24 coal and oil sands companies. The head of its sustainability department comments: "Hopefully, other investors will be acting along the same lines. There could be an interesting parallel to tobacco."[114] Scottish Widows Investment Partnership, with assets of US$ 233 billion, divested from "pure play" coal producers last year. Hesta Australia, a health care industry retirement fund worth US$ 26 billion announced in September 2014 that it would get out of coal. In October 2014, Local Government Super, a US$ 7 billion Australian pension fund, decided to exclude all companies deriving more than a third of their revenue from coal and oil sands. In the same month, Swedish state fund AP2 with assets over US$ 35 billion, decided to divest from 12 coal and 8 oil and gas production companies.[115]

These investors are not just driven by green sentiments, but by the growing realization that coal investments have become risky. Many coal equities have already trended down nearly 50% in the last five years. Analysts from Bloomberg to HSBC warn that they will fall even further if serious CO_2 reduction measures are put into place. And it is no longer safe to bet against climate regulation, when you can hear even a U.S. President saying: "Science is science. We are not going to be able to burn it all."[116]

111 "Fossil Fuel Cash Major Block to Climate Action," Reuters, 4.10.14

112 "Stranded Assets and the Fossil Fuel Campaign: What does Divestment Mean for the Valuation of Fossil Fuel Assets?," Ben Caldecott et al, University of Oxford, 2013

113 "Measuring the Global Fossil Fuel Divestment Movement," Arabella Advisors, September 2014

114 "Coal Seen as New Tobacco Sparking Investor Backlash," Bloomberg, 6.12.2013

115 "Swedish State Fund AP2 says it Divests 20 Fossil Fuel Energy Firms," Responsible Investor, 20.10.2014

There is no denying that coal is at the sharp end of a transition to a low-carbon energy system. At the New York Climate Summit even Statoil's representative was in a hurry to point out: "There is a fundamental difference between the various forms of fossil fuels (...) It's coal that really needs, in a wise way, to be phased out."[117] Although this statement is certainly not without self-interest, it does point to a very real concern. Investing oil revenues into the even more carbon-intensive coal industry maximizes the carbon burden associated with Norway's wealth.

Divestment or Engagement?

"Engagement without divestment is like having a legal system without a police force."

Carbon Tracker Initiative

"Divestment or Engagement?" is the short version of the question Norway's Finance Minister has put to the 6 members of an Expert Group led by Martin Skancke, a former Director General in the Ministry of Finance Asset Management Department. The lengthy version of the Expert Group's mandate goes like this: It will "evaluate whether the exclusion of coal and oil companies is a more effective strategy for addressing climate issues and promoting future change than the exercise of ownership and exertion of influence."[118]

At the public consultation held by the Expert Group in June 2014, virtually all of the attending civil society organizations pointed out that this is not the best way to phrase the question. Engagement and divestment are not mutually exclusive options. If an investor wants to influence a company through engagement, he should also be willing to use the "stick" of divestment if the company is unwilling to address his concerns. By the same token, an investor can divest from a company and still engage it by defining the

116 Quoted in "Giving up Fossil Fuels to Save the Climate," Bloomberg Businessweek, 26.6.2014

117 "Big Oil Groups Blame Climate Change on Coal," Financial Times, 26.9.2014

118 "Expert Group on Investments in Coal and Petroleum Companies," Ministry of Finance, Press release, 4.4.2014

changes that would need to take place for him to reinvest.

The Finance Ministry itself writes that it has, up to now, considered ownership and engagement to be "a more effective strategy for addressing climate issues and promoting change". This may indeed be true for companies that have only a limited exposure to the coal sector, but it seems a fool's errand for companies whose primary business revolves around coal. Even the most committed engagement strategy will never turn Peabody Energy or Coal India into a cuddly green company.

If the Norwegian government were looking for an effective strategy to **accelerate** climate change, it wouldn't have to look far. It could simply continue providing capital to an expanding coal sector through investments in the world's largest miners and burners. If the point of the exercise is, to find an "effective strategy for addressing climate issues," the point of departure should have been an assessment of the GPF's portfolio to determine which investments are most detrimental for our climate.

In our mind, the real question in the current debate will be: Is the Norwegian government serious enough about climate change to put the coal industry on its list of excluded activities? As Rainforest Foundation Norway writes: "The decision to exclude companies that produce tobacco or nuclear weapons was not taken on the basis of whether exclusion would be more effective than ownership activities."[119] These were value-based decisions. And the value now at stake is the temperature of our planet.

The How of Divestment

"Coal divestment could be relatively easy."

Bloomberg New Energy Finance, White Paper, August 2014

119 Submission from Rainforest Foundation Norway to the Expert Group on GFPG Investments in Coal and Petroleum Companies, 18.6.2014

There are a variety of approaches to divestment from coal. Some investors like Scottish Widows have focused on eliminating the "pure play" coal producers from their portfolios. Others such as Storebrand have excluded both significant coal miners and coal-based utilities. Some institutions like the Church of Sweden are using the income percentage a company derives from coal as the basis for their decision.

In the spirit of constructive discussion, we would like to outline what we believe are concrete, workable suggestions for divestment from coal.

The starting point for meaningful divestment is determining what a coal asset is. And when it comes to definitions, the devil lies in the details. In its assessments, NBIM uses definitions that capture only a small portion of the GPF's exposure to the coal industry. We therefore want to discuss in more detail the definitions we applied in our research, as we believe that these provide a solid basis for exclusion criteria.

NBIM should exclude and divest the following:

Companies whose business is primarily coal-related
Our first criteria seems like a no-brainer, and does not really require further explanation, except to say that "primarily" means the company's largest business segment is coal-related.

Companies producing more than 22 million tons of coal annually
Our second criteria warrants more discussion. While taking 22 million as a threshold may seem arbitrary, this number was calculated on the basis of Norway's annual greenhouse gas emissions, which currently amount to 52.8 million tons CO_2 equivalent. 22 million tons are the amount of bituminous coal that – when burned – generates CO_2 emissions as high as Norway's own. Companies whose coal production leads to CO_2 emissions as high or higher than Norway's should be considered part of the coal sector. Among the companies captured by this criteria are the multinational mining giants, for whom coal production is a significant, albeit not their primary business segment.

Companies operating or planning coal-to-liquids or coal-to-gas facilities
While NBIM classifies these companies in the oil and gas sector, their feedstock is coal. Coal-to-liquids and coal-to-gas production should

be a complete "no go" for the Pension Fund as these technologies represent the most harmful and CO_2 intensive part of the coal sector. This criteria covers South Africa's Sasol and 7 Chinese coal companies. We have, however, also included two Chinese oil companies: Sinopec and CNOOC. Sinopec's planned coal-to-gas plant is estimated at US$ 10 billion and CNOOC's at US$ 4.4 billion. In view of the fact, that the GPF vastly increased its holdings in Sinopec and CNOOC at a time when both companies are investing huge amounts of capital into coal ventures, we have classified these holdings as coal investments.[120]

Coal-based utilities

We do not understand why NBIM does not – at least publically – provide figures on the GPF's investments in coal-based utilities. This is, after all, where the rubber hits the road, or to be more precise, the coal hits the fire. Coal-fired power generation is **the main source** of rising CO_2 emissions and must therefore be part of any meaningful divestment. Especially for the GPF as coal-based utilities are the fastest growing part of its coal portfolio.

That being said, climate-concerned investors do have to make a judgment call on a "coal threshold" for utilities. For our review, we have put the threshold at 30%. Utilities were considered part of the coal sector if at least 30% of their power generation is coal-fired, or if 30% or more of their revenues are coal-related. A similar threshold is applied by the Australian pension fund Local Government Super,[121] while the Church of Sweden, for example, applies a threshold of 5%.[122] In cases where utilities have less than 30% coal-fired power generation, there could be room for an engagement strategy aimed at ensuring that the utility's new investments are focused on renewable energy and that coal-fired capacity is phased out over time. If the utility's coal percentage is higher, we would contend that it will be difficult for the company to re-orient such a large part of its business and therefore advocate an exit strategy.

When considering coal-based utilities, the highest priority should be eliminating holdings in companies burning lignite (which generates the highest CO_2 emissions per unit of electricity) and companies that are investing in new coal-fired power plants, as each new coal plant locks in emissions for decades to come.

Companies with large-scale expansion plans in the coal sector

In a way, our last criteria is the most important as it is about the future. Science tells us that 80% of coal reserves must stay in the ground if we want to avoid run-away climate change. If the Norwegian government accepts this premise, it makes no sense to put the Pension Fund's money in companies whose business plan is to become the next big coal producer. Or in companies that want to build a fleet of new coal plants.

As a long-term investor, the GPF needs to heed the fact that today's investments will decide tomorrow's emissions. NBIM must therefore take a careful look at the capital expenditure plans of companies in its portfolio, and say goodbye to those that insist on venturing ever deeper into coal country.

To be quite clear, the suggested criteria are by no means radical. In the course of our research, we identified 51 further companies in the GPF's holdings that have some coal mining or coal power business. They were, however, not included in our data as they did not meet the defined thresholds. And, our research did not even attempt to capture specialized coal equipment and transportation companies. Truly cleaning all of the coal dust out of the Pension Fund's portfolio would require a much more aggressive approach.

Our suggested criteria simply represent the very first step on the difficult road of realigning investments with climate stability. And while this first step is decisive, it is also one easily taken. Of all fossil fuels, coal is not only the most harmful, it is also the one easiest to replace. If implemented, our criteria would eliminate a significant part of the coal sector from the GPF's holdings. This would be an important step in the right direction.

120 Investments in Sinopec have tripled since 2011, and investments in CNOOC are 14 times higher than in 2011.

121 Media Release, Local Government Super, 7.10.2014

122 "Responsible Investment," Church of Sweden, 2013

To Divest or not to Divest: The World Looks to Norway

"It makes no sense to invest in companies that undermine our future."

Archbishop Desmond Tutu, April 2014

In many ways, the Norwegian Government Pension Fund is unique. It was one of the first large investors to develop ethical guidelines, and take them seriously enough to exclude some very big companies with very loose morals. Its Council on Ethics is often seen as a model for independent watchdogging and produces research of excellent quality. But what is perhaps most unique is that Norwegian people truly feel that they have a stake in what happens at Bankplassen 2 in Oslo.

The deep look we have taken into the coal investments of the GPF show that this part of the Fund's portfolio is very much at odds with the values embraced by Norway's society. We have shared our findings in the hope to contribute to an informed and lively discussion when the Norwegian parliament debates the question of what to do about coal.

Norwegians can, in any case, rest assured that there will be an attentive international audience listening in: From the top-floor boardrooms of the coal industry, the offices of large and small investors, from press rooms, climate study institutes, university campuses and many other venues around the world. Part of the audience may be anxious, some are simply curious, but many will be hopeful that one of the really big players of the investment world could do the right thing and cut coal loose.

Among those on the hopeful side are not only climate concerned citizens like the ones that filled the streets of New York last September, but prominent figures like UN Secretary General Ban Ki-Moon or the President of the World Bank, who have called on long-term investors to recognize the long-term impacts of the decisions made today.[123]

The Norway's Government Pension Fund is a very large, a very global and a very long-term investor. Whether it continues to invest in an industry that is dirty and dangerous for us all makes a difference.

Dear Norway, Please divest.

123 "World Bank Chief Backs Fossil Fuel Divestment Drive," RTCC, 3.7.2014

Photo: Christian Åslund/Greenpeace

The GPF's Coal Bill

EQUITY & BOND Holdings 2013

Black = Equity Holdings
Blue = Bond Holdings

P = Power
M = Mining
CTG = Coal to Gas
CTL = Coal to Liquids
MTR = Mountain Top Removal
Fi = Finance Daughter of one of the above

Company sorted by Country	**Investment Value in Norwegian Krona**	**Coal Activity**	**Annual Coal Production in Million Metric Tons**	**Coal Share of Power Production**
Australia				
AGL Energy Ltd	441,414,094	M/ P	30	77 %
BHP Billiton Finance Ltd	496,614,674	M		
BHP Billiton Finance USA Ltd	677,649,152	M		
BHP Billiton Ltd	4,638,828,445	M	119	15 %
Carbon Energy Ltd	400,353	CTG		
Coal of Africa Ltd	1,514,028	M	3	
Coalspur Mines Ltd	2,958,129	M	expansion	
Cockatoo Coal Ltd	1,294,229	M	4	
Cokal Ltd	17,792,456	M	expansion	
Linc Energy Ltd	23,247,183	CTG/ M	expansion	
New Hope Corp Ltd	32,237,856	M	11	
White Energy Co Ltd	1,721,284	M	27	
Whitehaven Coal Ltd	130,152,329	M	8	
Yancoal Australia Ltd	50,486,349	M	14	
Brazil				
Vale SA	3,451,473,216	M	9	4 %
Vale SA	37,522,578	M		
British Virgin Islands				
CNOOC Finance 2003 Ltd	62,182,247	Fi		
Sable Mining Africa Ltd	5,492,437	M	expansion	
Canada				
Capital Power Corp	67,426,054	P		52 %
Sherritt International Corp	44,698,146	M	35	
SouthGobi Resources Ltd	1,958,405	M	2	
Teck Resources Ltd	283,296,028	M/ CTG	26	
Teck Resources Ltd	455,948,829	M		
Xstrata Finance Canada Ltd	755,884,424	M		
Cayman Islands				
Vale Overseas Ltd	364,456,302	M		
China				
Beijing Enterprises (Beikong) Holdings	175,575,167	CTG		
China Coal Energy Co Ltd (China National Coal)	34,145,120	M/ CTG	176	
China Petroleum & Chemical Corp. (SINOPEC)	1,563,505,416	CTG		
China Petroleum & Chemical Corp. (SINOPEC)	52,867,704	CTG		
China Power International Development Ltd.	72,750,465	P	61	75 %
China Resources Power Holdings Co Ltd	469,231,786	P	42	90 %
China Shenhua Energy Co Ltd	483,793,287	M/ P/ CTG	460	100 %
CNOOC Ltd	1,283,632,382	CTG		
CNOOC Curtis Funding No 1 Pty Ltd	170,641,325	Fi		
CNOOC Finance 2013 Ltd	460,069,684	Fi		
Datang International Power Generation Co Ltd	26,129,014	M/ P/ CTG	13	84 %

Company sorted by Country	Investment Value in Norwegian Krona	Coal Activity	Million Metric Tons	Power Production
Hidili Industry International Development Ltd	13,610,072	M	5	
Huadian Fuxin Energy Corp Ltd	29,276,711	P		37 %
Huadian Power International Corp Ltd	82,707,571	P		91 %
Huaneng Power International Inc	214,420,236	P/ CTG	69	91 %
Inner Mongolia Yitai Coal Co Ltd	148,758,904	M	68	
Sany Heavy Equipment International Holdings Ltd	55,352,500	CTG		
SDIC Huajing Power Holdings Co Ltd	21,254,463	P		44 %
Winsway Coking Coal Holdings Ltd	5,298,149	M	3	
Yanzhou Coal Mining Co Ltd	21,848,500	M/ CTG	68	
Czech Republic				
CEZ AS	420,162,954	P/ M	23	49 %
CEZ AS	414,107,276	P/ M		
Denmark				
Dong Energy A/S	189,255,007	P		57 %
Germany				
E.ON SE	4,756,118,039	P		23 %
RWE AG	2,828,669,104	M/ P	102	62 %
Greece				
Public Power Corp SA	372,038,321	P/ M	62	50 %
Hong Kong				
CLP Holdings Ltd	945,774,252	P		62 %
Mongolian Mining Corp	15,657,297	M	11	
Shougang Fushan Resources Group Ltd	119,326,096	M	3	
United Co RUSAL PLC	14,071,180	M	46	
Isle of Man				
Sasol Financing International PLC	340,253,822	Fi		
India				
Adani Power Ltd	973,684	P	4	78 %
CESC Ltd	19,443,750	P		91 %
Coal India Ltd	107,534,226	M	462	
Gujarat Mineral Development Corp Ltd	16,335,384	M	11	
GVK Power & Infrastructure Ltd	3,728,810	P/ M	expansion	expansion
Jindal Steel & Power Ltd	44,715,205	M/ P	18	41 %
JSW Energy Ltd	20,247,777	P/ M	4	100 %
Lanco Infratech Ltd	3,879,184	P/ M	4	71 %
Monnet Ispat & Energy Ltd	9,505,367	M/ P	9	100 %
NTPC Ltd	423,025,776	P/ M		86 %
Reliance Infrastructure Ltd	78,458,178	P		53 %
Steel Authority of India Ltd (SAIL)	70,060,250	M/ P	1	100 %
Tata Power Co Ltd	43,738,484	M	51	84 %
Tata Steel Co Ltd	191,417,487	M	8	
Italy				
Enel SpA	4,562,950,805	P		70 %
Enel SpA	190,347,009	P		
Japan				
Electric Power Development Co Ltd	269,129,286	P		49 %
Hokkaido Electric Power Co Inc	48,703,411	P		45 %
Hokuriku Electric Power Co	113,267,522	P		64 %
Itochu Corp	1,174,787,969	M	22	
Mitsui & Co (Australia) Ltd	1,416,683,435	M	32	
Nippon Coke & Engineering Co Ltd	9,409,375	M/ P	4	61 %
Okinawa Electric Power Co Inc/The	29,179,064	P		76 %
Shikoku Electric Power Co Inc	89,516,523	P		53 %

Company sorted by Country	Investment Value in Norwegian Krona	Coal Activity	Million Metric Tons	Power Production
Luxembourg				
Glencore Finance Europe SA	187,023,246	Fi		
Netherlands				
E.ON International Finance BV	985,398,654	P		
EnBW International Finance BV	92,766,357	P		37 %
Enel Finance International NV	1,512,464,574	P		
RWE Finance BV	536,322,896	P/ M		
New Zealand				
Bathurst Resources Ltd	4,982,963	M	3	
Philippines				
Aboitiz Power Corp	105,893,282	P		36 %
Semirara Mining Corp	71,193,195	M/ P	8	100 %
Poland				
Enea SA	2,699,919	P		64 %
Energa SA	29,626,523	P		50 %
Jastrzebska Spolka Weglowa SA	67,595,395	M	14	
Lubelski Wegiel Bogdanka SA	290,505,833	M	9	
PGE SA	377,558,503	P	51	91 %
Tauron Polska Energia SA	62,074,981	P	6	87 %
Zespol Elektrowni Patnow Adamow Konin SA	57,850,660	P	14	< 100%
Russia				
E.ON Russia JSC	108,839,328	P		31 %
Enel OGK-5 OJSC	29,290,202	P		40 %
Kuzbasskaya Toplivnaya Kompaniya OAO	27,042,947	M	9	
Mechel	34,657,015	M/ MTR	28	
Raspadskaya OAO	90,457	M	8	
South Africa				
Exxaro Resources Ltd	84,339,775	M	42	
Sasol Ltd	1,047,372,299	M/ P/ CTL	40	5 %
South Korea				
Korea Electric Power Corp	519,295,686	P		63 %
Korea Electric Power Corp	63,249,854	P		
Sweden				
Vattenfall AB	490,145,907	P/ M	62	39 %
Thailand				
Glow Energy PCL	246,442,955	P		36 %
United Kingdom				
Anglo American PLC	2,933,873,704	M	99	
Anglo American Capital PLC	273,638,938	M		
Anglo Pacific Group PLC	3,169,719	M	expansion	
BHP Billiton PLC	11,537,610,772	M		
Drax Group PLC	754,847,815	P		87 %
Essar Energy PLC	109,125,491	P		100 %
Evraz PLC	97,674,041	M	23	
Glencore Xstrata PLC	8,606,591,560	M	138	
New World Resources PLC	32,471,122	M	9	
Scottish Power Ltd	183,278,087	P		63 %
United States				
AES Corp/VA	366,391,220	P		40 %
ALLETE Inc	98,452,594	P	4	92 %
Alpha Natural Resources Inc	70,755,879	M/ MTR	106	
Ameren Corp	209,247,988	P		56 %

Company sorted by Country	Investment Value in Norwegian Krona	Coal Activity	Million Metric Tons	Power Production
Ameren Corp	209,247,988	P		56 %
Ameren Corp	12,614,807	P		
Ameren Illinois Co	214,318,512	P		
American Electric Power Co Inc	1,100,894,352	P		83 %
Appalachian Power Co	153,581,241	P		69 %
Arch Coal Inc	46,742,577	M/ MTR	124	
Black Hills Corp	120,398,545	M/ P	4	38 %
Cleco Corp	140,602,007	P		54 %
Cloud Peak Energy Inc	95,853,633	M	87	
CONSOL Energy Inc	307,450,924	M/ MTR	52	
Dominion Resources Inc/VA	1,725,166,131	P		30 %
Dominion Resources Inc/VA	228,142,856	P		
DTE Energy Co	242,053,570	P		72 %
DTE Energy Co	31,395,935	P		
Duke Energy Carolinas LLC	379,721,428	P		
Duke Energy Corp	1,567,361,763	P		39 %
Duke Energy Corp	486,836,240	P		
Duke Energy Florida Inc	147,092,902	P		
Duke Energy Progress Inc	295,077,342	P		
FirstEnergy Corp	341,925,967	P		52 %
FirstEnergy Solutions Corp	17,352,510	P		
Georgia Power Co	460,444,127	P		39 %
Glencore Funding LLC	31,154,208	Fi		
Great Plains Energy Inc	211,448,065	P		83 %
Great River Energy	29,550,042	P		70 %
Hallador Energy Co	3,828,777	M	3	
IDACORP Inc	130,851,902	P		33 %
Integrys Energy Group Inc	192,537,178	P		91 %
MGE Energy Inc	71,390,132	P		54 %
Midamerican Energy Co	221,649,397	P		63 %
Midamerican Energy Holdings Co	429,248,168	P		
Midamerican Funding LLC	35,521,794	P		
NACCO Industries Inc	19,407,046	M/ MTR	34	
Ohio Power Co	102,791,352	P/ M		63 %
PacifiCorp	777,515,389	P		64 %
Peabody Energy Corp	64,389,093	M	208	
PHI Inc	27,306,713	M/ P	expansion	expansion
PNM Resources Inc	100,795,089	P		42 %
PPL Corp	454,862,701	P/ M		50 %
PPL Electric Utilities Corp	150,319,305	P/M		
PPL Energy Supply LLC	48,499,055	P/M		
Southwestern Electric Power Co	27,317,486	P		31 %
Southern Co/The	1,075,755,694	P		37 %
SunCoke Energy Inc	69,683,137	M	3	
UNS Energy Corp	204,803,836	P		48 %
Walter Energy Inc	40,888,768	M/ MTR	26	
Westar Energy Inc	186,502,649	P		53 %
Wisconsin Electric Power Co	137,951,853	P		
Wisconsin Energy Corp	160,514,541	P		52 %
Xcel Energy Inc	348,558,358	P		45 %
Xcel Energy Inc	115,664,792	P		
TOTAL	**82,681,575,218**		**3,339.40**	

The numbers were updated since
the report was in print.
With all dirty & dangerous investments
included, the numbers are even higher
than previously assumed.

Photo: Sanjit Das