

A Look into the Portfolios of  
the World's Largest Banks



# BANKROLLING CLIMATE CHANGE

Published by urgewald, groundWork,  
Earthlife Africa Johannesburg and BankTrack

urgewald  
[heffa@urgewald.de](mailto:heffa@urgewald.de)  
Tel: (49)-2583-1031  
[www.urgewald.de](http://www.urgewald.de)

groundWork  
[team@groundwork.org.za](mailto:team@groundwork.org.za)  
Tel: (27)-33-3425662  
[www.groundwork.org.za](http://www.groundwork.org.za)

Earthlife Africa Johannesburg  
[seccp@earthlife.org.za](mailto:seccp@earthlife.org.za)  
Tel: (27)-11-339 3662  
[www.earthlife.org.za](http://www.earthlife.org.za)

BankTrack  
[yann@banktrack.org](mailto:yann@banktrack.org)  
Tel: (33)-688-907868  
[www.banktrack.org](http://www.banktrack.org)



Authors: Heffa Schücking, Lydia Kroll, Yann Louvel and Regine Richter

Research: Profundo

Design: Markus Heinbach, Neue Reklame

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A lignite-fired power plant of the German company RWE, Europe's biggest carbon dioxide emitter.

# I. WHO IS FINANCING CLIMATE CHANGE?

We all know that climate change is happening. But do we know who is financing the dirty energy investments that are heating up the globe?

Until now, little was known about banks' role and responsibility for global warming. While most large commercial banks provide figures on their annual investments into renewable energy, they neither track nor publish their annual investments into fossil fuel projects. Many banks have made far-reaching statements on climate, but are they putting their money where their mouth is?

This study presents new research on the portfolios of 93 of the world's leading banks. It examines their lending for the coal industry, the prime source of global CO<sub>2</sub> emissions. It provides the first comprehensive climate ranking for financial institutions and identifies the top "climate killers" in the banking world.

By naming and shaming these banks, we hope to set the stage for a race to the top, where banks compete with each other to clean up their portfolios and stop financing investments which are pushing our climate over the brink. We want banks to act and we want them to act now.

This study was produced by the environment organization urgewald from Germany, the social and environmental justice organizations groundWork and Earthlife Africa from South Africa, and the international NGO network BankTrack.





Photo: Caroline Penn/CORBIS

A young girl from Kiribati. Kiribati is a small island state in the South Pacific and is expected to be the first country, whose territory disappears due to global climate change. Over 100,000 people live on Kiribati's atolls. Since 2008, Kiribati's leaders have begun planning "for the day when we no longer have a country" and have made requests to the international community, and specifically Australia and New Zealand, to accept their citizens as permanent refugees.

## I.1. The Heat is On

According to the International Energy Agency (IEA), energy related carbon dioxide (CO<sub>2</sub>) emissions in 2010 were the highest in history.

“This significant increase in CO<sub>2</sub> emissions and the locking in of future emissions due to infrastructure investments represent a serious setback to our hopes of limiting the global rise in temperature to no more than 2° Celsius,” says Dr. Faith Birol, Chief Economist at the IEA. <sup>1</sup>

Compared to the pre-industrial period, our planet has already warmed up by 0.8 degrees. The impacts of this rise in temperature are manifold and serious. They range from melting polar ice and thawing permafrost to rising sea levels, drought, famine and an increasing intensity of severe storms and other extreme weather events throughout the world. This is, however, only the beginning. If greenhouse gas emissions remain unchecked, global temperatures could rise as much as 6.4 degrees by the end of the century, leading to a global catastrophe of terrifying proportions. In 2010, the United Nations Climate Change Conference therefore set the target of limiting global warming to 2° Celsius, noting that there may well be a need to further tighten this target to 1.5° C.

The major culprit in this drama is coal. Coal-fired power plants are the biggest source of man-made CO<sub>2</sub> emissions. According to James Hansen, director of NASA’s Goddard Space Institute, ending emissions from coal “is 80% of the solution to the global warming crisis.”<sup>2</sup> Hansen thus advocates a moratorium on new coal-fired power plants and a phase-out of the existing coal fleet.

The window of opportunity to act is now. The construction of each new coal-fired power plant locks in additional annual emissions of millions of tons of CO<sub>2</sub> over the next 30 – 40 years (the life time of these plants). Unfortunately, there is an abundance of plans to build new coal-fired power plants. According to the World Development Report 2010, “if all coal-fired power plants scheduled to be built in the next 25 years come into operation, their



lifetime CO<sub>2</sub> emissions would be equal to those of all coal burning activities since the begin of industrialization.”<sup>3</sup>

So far, public policy responses to climate change have been inconsistent and woefully inadequate. The Kyoto Protocol is the only legally binding agreement which limits CO<sub>2</sub> emissions, but its commitments are due to run out in 2012. As current negotiations stand, it is doubtful whether governments will be able to come to an agreement, which effectively caps emissions from 2012 onwards. Action from other actors cannot wait until governments find the political will to effectively deal with the climate crisis. This is particularly true for actors that by nature of their business have large impacts on climate change.



Photo: A. Weller/archimage

The E.ON plant Ratcliffe-on-Soar is one of the highest CO<sub>2</sub> emitters in Britain. Environmentalists have repeatedly staged blockades to get the plant shut down.



## I.2. The Power of the Finance Sector

Through their lending, investment and other financial services, commercial banks play an indispensable role in mobilizing and allocating financial resources for the private sector. As such they are in a unique position to either further entrench energy production based on the burning of fossil fuels or to catalyze the necessary transition to a low carbon economy.

Coal-fired power plants are not cheap to build. Typically, a 600 Megawatt plant will cost around US\$ 2 billion.<sup>4</sup> Power producers therefore rely heavily on banks to provide and mobilize the necessary capital for such ventures. As much of this financing is indirect – delivered through corporate loans and bonds – banks have for the most part been successful in keeping these investments hidden from public scrutiny.

In order to lift this veil of secrecy and to be able to rank banks according to their negative climate impacts, we commissioned the research institute Profundo to investigate the contributions of 93 large international banks towards financing the coal industry since 2005.

## I.3. Methodology and Scope of the Research

Our research covers financing of 31 major coal-mining companies and 40 producers of coal-fired electricity by 93 banks since 2005, the year the Kyoto Protocol came into force.

For our “climate killer ranking” of the banks, we did not differentiate between banks’ financing of coal mining and coal-fired electricity production, but instead computed a total based on their financial engagement in both areas. As banks often also hold assets of these companies, we also included the most recent data (2011) on banks’ asset holdings in these companies.

The 31 coal mining companies were selected on the basis of their worldwide coal production in million tons (Mt) in 2010, whereby the number of companies per country was restricted to enable a spread among different regions. Together, the 31 selected companies accounted for 44.4 percent of global coal production in 2010.

The analysis for coal-fired electricity contains the 40 most important companies in this sector, selected on the basis of their coal-fired capacity in Megawatt (MW) in 2010. The number of electricity companies was restricted to ten per country, to enable a spread among different regions. Together, the 40 selected companies own 50.8 percent of the global coal-fired generation capacity in 2010.

Profundo reviewed the annual reports of these companies, their stock exchange filings and other publications, such as archives of trade magazines and the financial press as well as specialized financial databases such as Thomson ONE and Bloomberg to trace financial transactions between these companies and commercial banks.

For each financing relationship, an assessment was made which portion of the finance was used for the coal activities of a company (the coal percentage). For project finance and other forms of targeted finance this

percentage is 100%. For general forms of finance (corporate loans, share and bond issuances) and share- and bond holdings, this percentage is equal to the percentage of the assets of the company devoted to coal mining or coal-fired electricity. In the case of coal mining, wherever possible, this percentage of assets was derived from the segment data of the companies' annual reports.

In the case of coal-fired electricity producers, we first divided the generating capacity of the coal-fired power plants of a company by the total generating capacity of the company. The resulting percentage was then multiplied by the percentage of assets devoted to electricity generation. For example, if 60% of the company's generating capacity is derived from coal-fired power plants, and 80% of the company's activities are devoted to electricity generation the coal percentage is 48%. If financing was provided to a specific subsidiary of the mining or electricity company we calculated the coal percentage of the subsidiary.

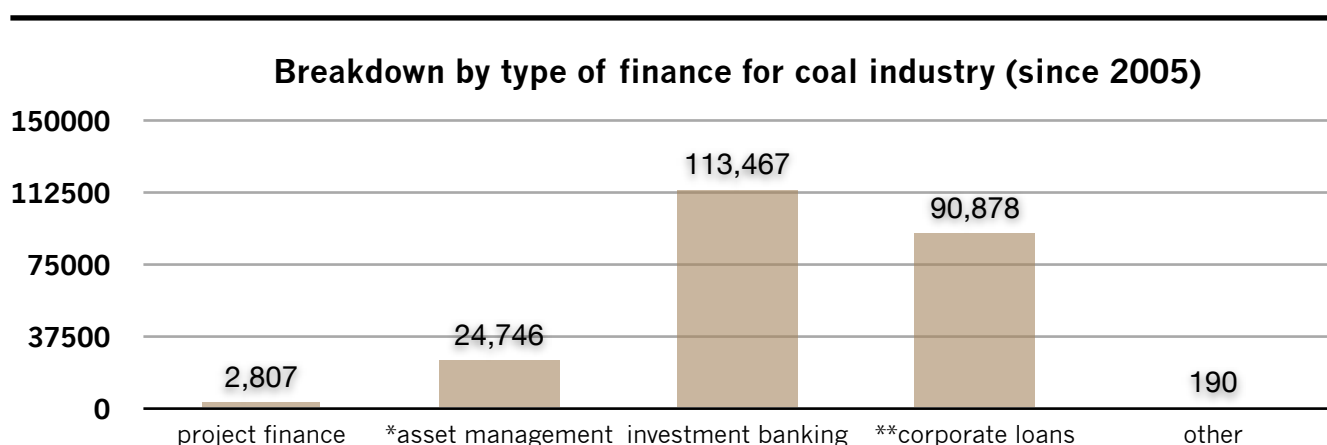
When we found syndicated loans or bond issues where several banks participated in a single transaction and no information was available on each bank's specific contribution, we first divided the sum between the arranging and participating banks (based on the assumption that arranging banks generally provide higher amounts) and then assumed an even distribution within each group. Although this may not reflect the actual division of financing, it at least gives a reasonable estimate of individual banks' involvement.

**For a full view of all researched deals, see the excel sheet with our original data on the BankTrack webpage:**

**[http://www.banktrack.org/show/pages/banks\\_and\\_coal\\_financing](http://www.banktrack.org/show/pages/banks_and_coal_financing)**

## II. GENERAL FINDINGS

In total, our research identified 1405 transactions involving 93 different banks. The total value of coal financing provided by these banks since 2005 (the year the Kyoto Protocol came into force) amounts to 232 billion Euro.



\* The asset management figures are based solely on data from 2011.

■ in million Euro

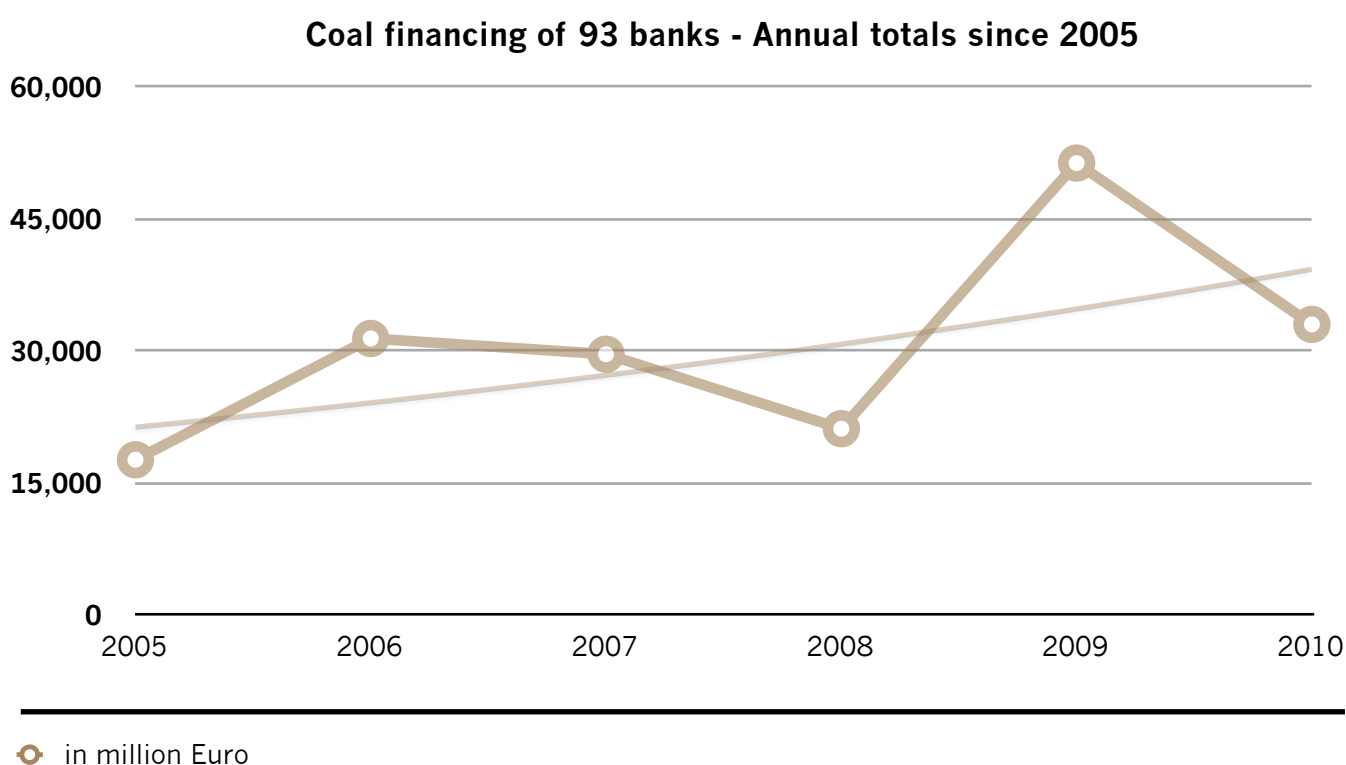
\*\* includes letters of credit, guarantee facilities, revolving credit facilities

The results show that the bulk of coal financing is provided through investment banking (issuing of bonds and shares) and corporate loans. Taken together, these cover 88% of the mapped investments. While it is true that general corporate loans and bonds cannot be directly linked to specific investment projects, they are nonetheless the main vehicle through which coal mining companies and providers of coal-fired electricity raise capital for their investments. Project financing only plays a marginal role for the coal industry and accounted for 1% of the mapped investments. The remaining 11% reflect the bank's role as asset managers (holders of coal industry



shares and bonds). In our study, the term “coal industry” encompasses both coal mining and the generation of electricity through coal-fired power plants.

We also asked ourselves, how financing for the coal industry has evolved since the Kyoto Protocol came into force. The following graph shows the development of coal finance provided by commercial banks between 2005 and 2010.



Although financing goes up and down from one year to the next, the overall trend shown by the graph is that bank's investments into the coal sector are on the rise. Even during the financial crisis in 2008, the annual total is still higher than our baseline in 2005. In 2010, financing for the coal industry was almost twice as high as in 2005.

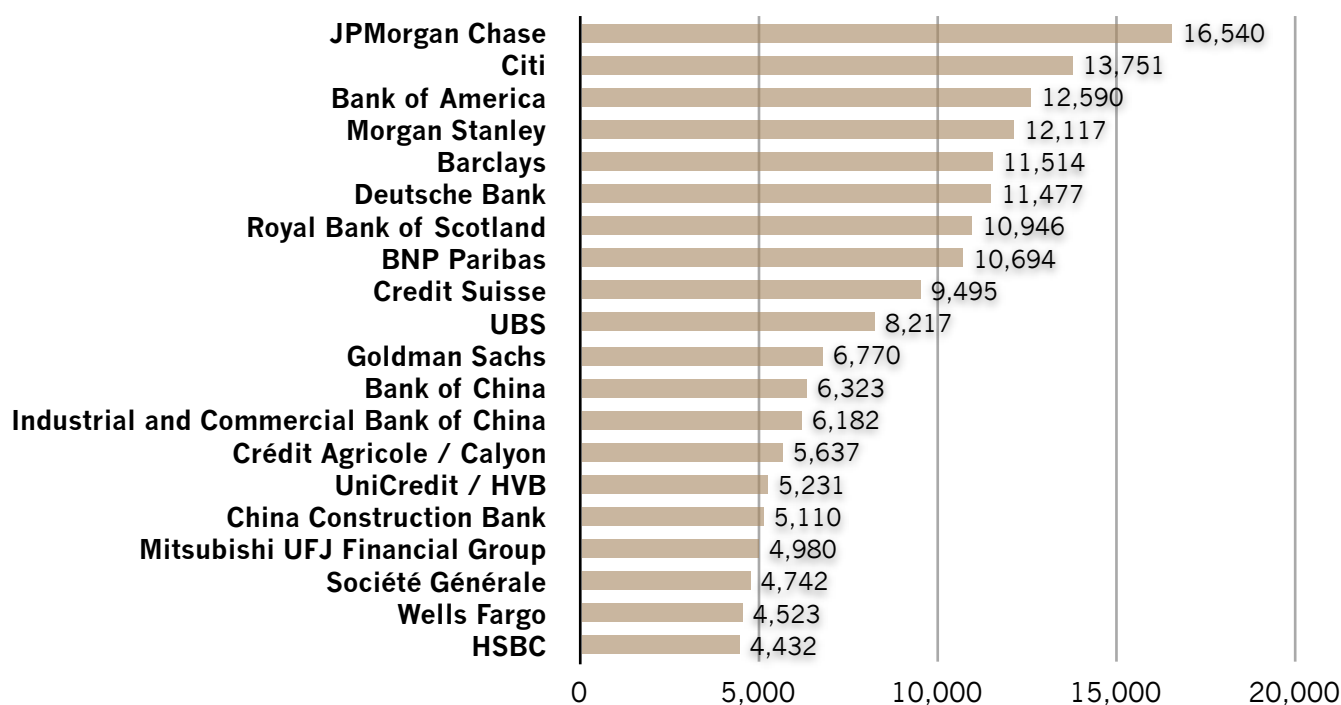
## II.1.The Top Twenty Climate Killer Banks

Together, the top twenty banks in our ranking provided over 171 billion Euros to the coal industry since 2005.



This is 74 percent of the total financing we identified in our study. For a full list of finance provided to the coal industry by all 93 banks included in our research, see the annex at the end of this briefing. The top twenty climate killers include banks from the United States, the United Kingdom, Germany, France, Switzerland, China, Italy and Japan.

### Top 20 Banks financing coal fired electricity and coal mining since 2005



■ in million Euro

This ranking is in sharp contrast to the everyday rhetoric of these banks. Almost all of the top twenty banks have made far-reaching statements regarding their commitment to combating climate change. On the next page are short excerpts compiled from the banks' individual websites, their environment statements and their Corporate Social Responsibility Reports. They show the complete "disconnect" between banks' portfolios and their words when it comes to financing coal, the major contributor to climate change.

# Bank's Climate Commitments:

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**JPMorgan Chase:** *"Helping the world transition to a low-carbon economy"*

**Citi:** *"Most innovative bank in climate change"*

**Bank of America:** *"The most formidable challenge we face is global climate change"*

**Morgan Stanley:** *"(...)make your life greener and help tackle climate change."*

**Barclays:** *"Managing the climate change risks of our operations and those of our clients"*

**Deutsche Bank:** *"Climate change is the dominant environmental issue of our time and one where we can make a significant contribution."*

**Royal Bank of Scotland:** *"As a financial services group our direct impact on the environment in terms of climate change (...) is limited"*

**BNP Paribas:** *"A strong commitment to combating climate change"*

**Credit Suisse:** *"Credit Suisse cares for climate"*

**UBS:** *"Addressing climate change on a global scale will require an unprecedented mobilization of private sector investments"*

**Goldman Sachs:** *"Goldman Sachs is very concerned by the threat to our natural environment, to humans and to the economy presented by climate change"*

**Bank of China:** *"As a responsible corporate citizen with a global presence, we are committed to responding to the challenge of climate change"*

**Industrial and Commercial Bank of China:** *"As an advocate and executor of "green banking", the Bank is actively advocating a low-carbon way of living"*

**Credit Agricole:** *"Combating climate change is central to our strategy"*

**UniCredit:** *"The group reiterates its commitment to the achievement of the goals of the Kyoto Protocol in all countries where it has a presence"*

**China Construction Bank:** *CCB's strategic objective is to become a low carbon bank"*

**Mitsubishi Financial Group:** *"We will channel our full capabilities into working toward the benefit of the environment and future generations"*

**Societe Generale:** *"As a community of 135,000 employees, we are aiming to control and reduce our own carbon footprint"*

**Wells Fargo:** *"We want to help our customers and nation transition to a cleaner, more sustainable lower-carbon economy"*

**HSBC:** *"HSBC adopts a cautious approach to activities which contribute significantly to climate change"*



# Nothing but Hot Air

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JPMorganChase 

citibank

Bank of America 

Morgan Stanley

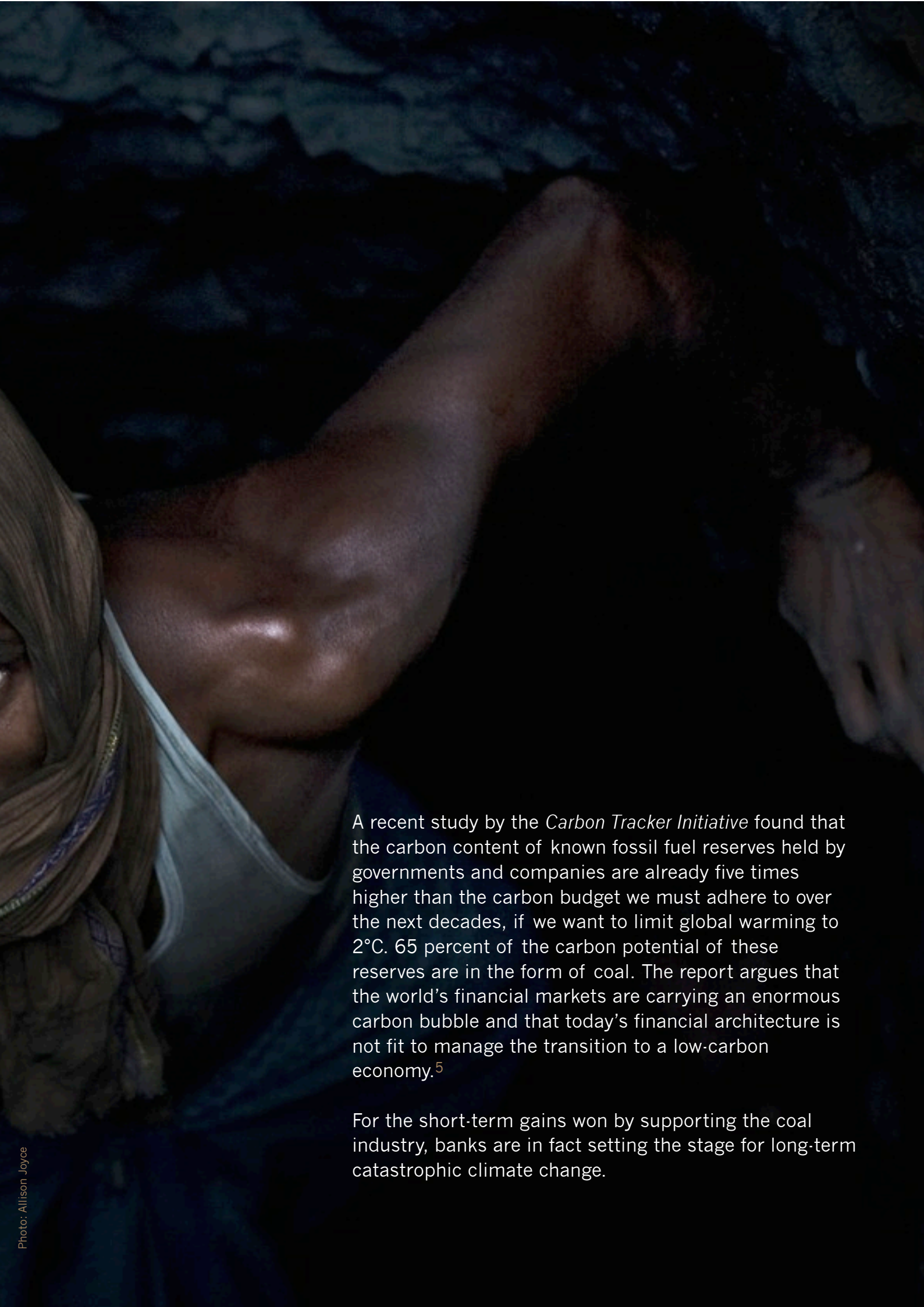
 BARCLAYSDeutsche Bank  RBS™ BNP PARIBAS  
La banque d'un monde qui changeCREDIT SUISSE  UBSGoldman  
Sachs 中國銀行  
BANK OF CHINAICBC  CRÉDIT AGRICOLE HypoVereinsbankMember of  UniCredit 中国建设银行  
China Construction Bank

Mitsubishi UFJ Financial Group

SOCIÉTÉ GÉNÉRALE  
Corporate & Investment BankingWELLS  
FARGOHSBC 

## II.3. Coal: Putting Us All in a Hole

As more and more coal-fired power plants are built, external costs are rising dramatically. In 2006, the “Stern Review on the Economics of Climate Change” insisted that 2% of global GDP are needed to combat climate change and that costs of climate mitigation could otherwise reach between 5 and 20% of global GDP by 2100.



A recent study by the *Carbon Tracker Initiative* found that the carbon content of known fossil fuel reserves held by governments and companies are already five times higher than the carbon budget we must adhere to over the next decades, if we want to limit global warming to 2°C. 65 percent of the carbon potential of these reserves are in the form of coal. The report argues that the world's financial markets are carrying an enormous carbon bubble and that today's financial architecture is not fit to manage the transition to a low-carbon economy.<sup>5</sup>

For the short-term gains won by supporting the coal industry, banks are in fact setting the stage for long-term catastrophic climate change.



## II.4 What's wrong with Coal?

The following two chapters and case studies show that the damage caused by coal, goes far beyond CO<sub>2</sub> emissions.

The entire process from mining through combustion to waste disposal has a dire impact on the environment, human health and the social fabric of communities living near mines, power plants and waste areas. It severely disrupts ecosystems and contaminates water supplies. It emits other greenhouse gases like nitrogen oxide and methane as well as toxic chemicals such as mercury and arsenic. It displaces communities and destroys livelihoods. Of course, none of these costs are reflected in the price of coal.<sup>6</sup> These costs are paid by society – and the heaviest price is often paid by the poor.

Commercial banks are, as of yet, loathe to acknowledge the devastating environmental and social costs of their investments into the coal industry. The following sections outline some of the reasons why citizen's movements from around the world are calling on banks to quit coal.

Workers in one of Coal India's mines. Coal India is the world's largest coal producer.





### III. MINING COAL

## Coal mining causes irreparable harm to natural landscapes.

Large open cast mines can cover an area of over 100 square kilometers. Massive excavations strip the land bare, generate huge waste mountains and blanket surrounding communities with dust particles and debris. Underground mining leaves behind empty spaces, which can collapse and cause the land above to sink resulting in structural damage to buildings, roads and bridges. And coal mining has tremendous impacts on water resources. When coal is excavated from underground, groundwater is pumped out to dry out the areas to be mined. This often lowers the water table in surrounding areas, damaging local ecosystems and agriculture. Surface mining operations can also cause water resources to disappear, by covering them under mounds of dirt.

In mountaintop removal mining, companies blast apart the tops of mountains to reach thin seams of coal buried below. Mountaintop removal coal makes up 7 percent of total U.S. coal use. After mountains are leveled, the leftover dirt and rock – full of toxins from the mining process – is dumped in local valleys. In the United States alone, over 2,000 miles of streams have been buried or polluted by mountaintop removal.<sup>7</sup> Heavy metals like cadmium, selenium and arsenic poison the local water supply. Mountaintop removal also pollutes the air with hazardous particles. Recent studies have found that cancer rates are twice as high for people who live near mountaintop removal sites.<sup>8</sup>

According to a 2011 report by Rainforest Action Network and the Sierra Club, the top three financiers of mountaintop removal are currently the U.S. banks PNC Financial Services and Citi and the Swiss bank UBS.<sup>9</sup> Due to public pressure, a number of banks have recently begun to restrict financing for mountaintop removal (MTR). Most notably, Credit Suisse, which completely excludes companies that practice mountaintop removal from its portfolio.<sup>10</sup> Citi has, however, doubled its exposure to the sector since announcing its policy on MTR extraction in 2009. And UBS, which also recently announced a policy on MTR, nonetheless acted as financial advisor on a deal that created the largest single mountain top removal company in the U.S., responsible for fully 25% of coal production from MTR mines.

When coal surfaces are exposed, pyrite (iron sulfide) comes in contact with water and air and forms sulfuric acid. As water drains from the mine, the acid moves into the waterways, and as long as rain falls on the mine tailings, sulfuric acid production continues, whether the mine is still operating or not. This process is known as acid mine drainage. Abandoned coal mines are ticking time bombs for the environment, mainly due to acid mine drainage, whereby water draining from the mines is filled with heavy metals and carcinogenic substances like benzene. South Africa alone has hundreds of abandoned coalmines leaching acids and toxics into the environment. According to the South African Department of Water Affairs, Acid Mine Drainage poses the biggest threat to the quality of the country's limited water resources.<sup>11</sup>

Coal mining also generates huge quantities of waste. This includes solid waste, which is flammable and susceptible to spontaneous combustion. It also includes liquid waste from coal washing. Using anywhere from 75 to 150 liters water per ton of coal, coal washing separates out non-combustible components and typically washes them away in a sludge known as slurry.<sup>12</sup> Coal slurry is stored in large impoundments, which can seep or even break down, endangering communities and the environment.

Coal mining, washing and transportation also stir up small dust and coal particles, which can cause serious and potentially fatal lung diseases. Beyond conventional air pollution, coal mining is also a source of methane, a global warming gas more than 20 times as potent as carbon dioxide. In the United States, coalmining releases about 26% of all energy related methane emissions.<sup>13</sup>

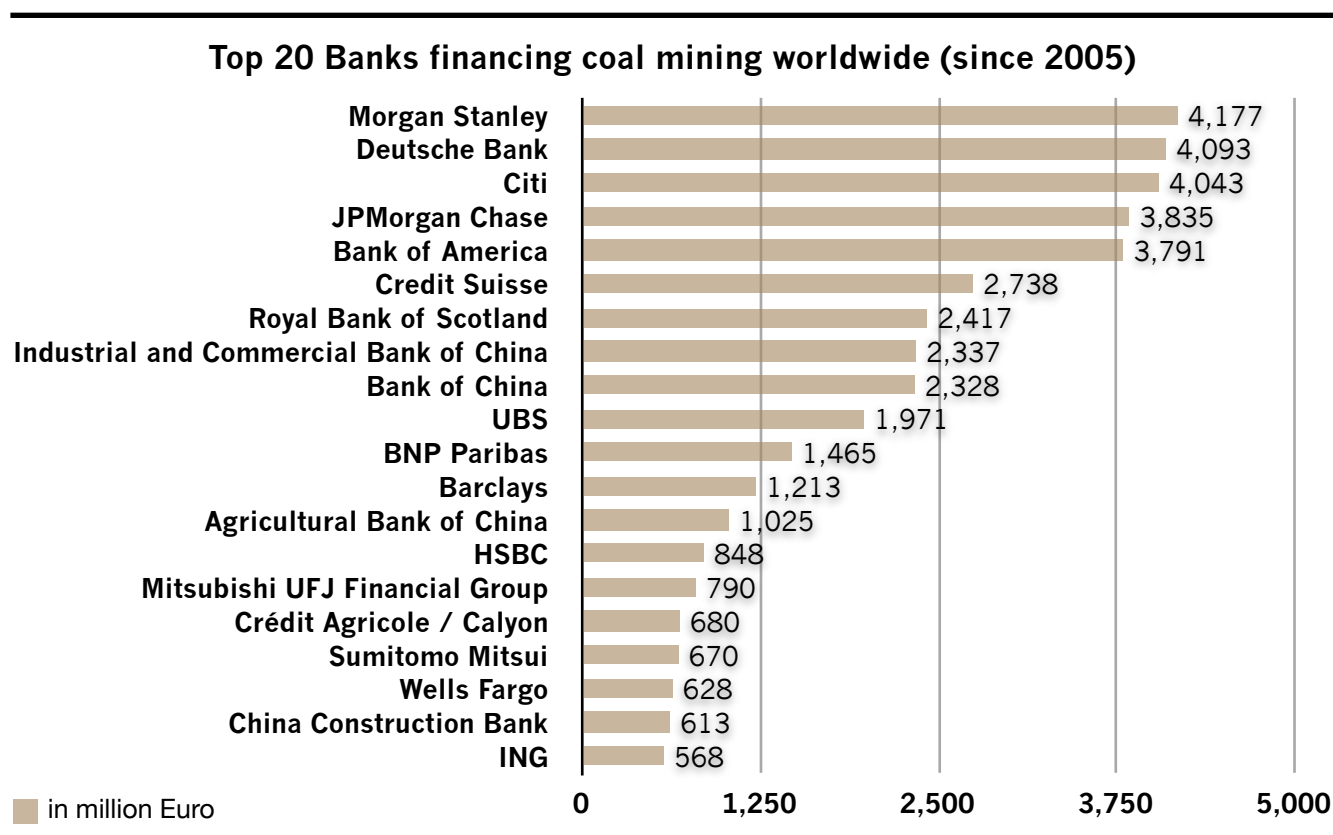
Mines also lead to displacement of local communities and the massive destruction of livelihoods. For the planned Phulbari coal mine in northwestern Bangladesh at least 50,000 people would be displaced. According to an Expert Committee of the Bangladesh Government, however, ground water depletion will raise the total number of affected people to 220,000 and destroy one of the country's most fertile agricultural regions.<sup>14</sup> In the Northeast of India an estimated 70,000 children, some as young as eight, are working as bonded laborers in coalmines.<sup>15</sup> In Colombia, coal companies are forcing the indigenous Wayúu people off lands, they have inhabited since before the Spanish colonization. All over the world, the human costs of coal mining are enormous.



Bangladesh: In August 2006 close to 100,000 people took part in a peaceful march to protest against Global Coal Management's plan to develop an enormous open pit mine in the Phulbari area. Security forces ended the demonstration by shooting into the crowd, killing three people and injuring more than 200.

### III.1. Bankrolling Coal Mines

Through corporate finance, project finance and investment banking, the researched banks supported the coal mining industry with over 48 billion Euro since the Kyoto Protocol came into force. The following table shows the top 20 banks in this sector.



Asset management is not included. The figures cover project finance and capital raised through investment banking and corporate loans.



## Case Studies:

### III.2. Coal India Limited

Most of India's coalmines are operated by Coal India and its subsidiaries, which account for 82% of the country's coal production.<sup>16</sup> Coal India is the largest company in the world in terms of coal production.

The Jharia region used to be a dense belt of forests, inhabited by tribal people. Today, most of India's coal comes from Jharia. The area harbors 23 large underground and nine large opencast mines run by Coal India. Underground coal fires started by spontaneous combustion are a fact of life here, turning mines like Rajapur and its surroundings into a slow-burning inferno. More than 400,000 people in Jharia are living on land in danger of subsidence due to the fires. According to 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 – then re-relocations, as fire fronts advance. Perhaps the most terrifying spectacle is the unquenched fire itself: engulfing the region in a haze of soot, carbon monoxide and compounds of sulfur and nitrogen."<sup>17</sup> Locals in Jharia live over these underground coal fires and residents work alongside the fires, all the time breathing in toxic fumes. As farming has become impossible, scavenging coal is the only source of income for many villagers. As a security guard from the Rajapur Mine explains: "This place seems like hell on Earth."<sup>18</sup>

In September 2011, India's official Comptroller and Auditor General (CAG) stated that Coal India is running 239 mines in its seven coal producing subsidiaries without environment permits, including 48 open cast mines, 170 underground mines, and 21 combined mines.<sup>19</sup> In spite of its disastrous record at home, Coal India is now looking to expand its

Before coal mining started here, Jharia was a belt of dense forests inhabited by tribal people. Today it harbors the world's single greatest concentration of coal fires.

Photo: Allison Joyce

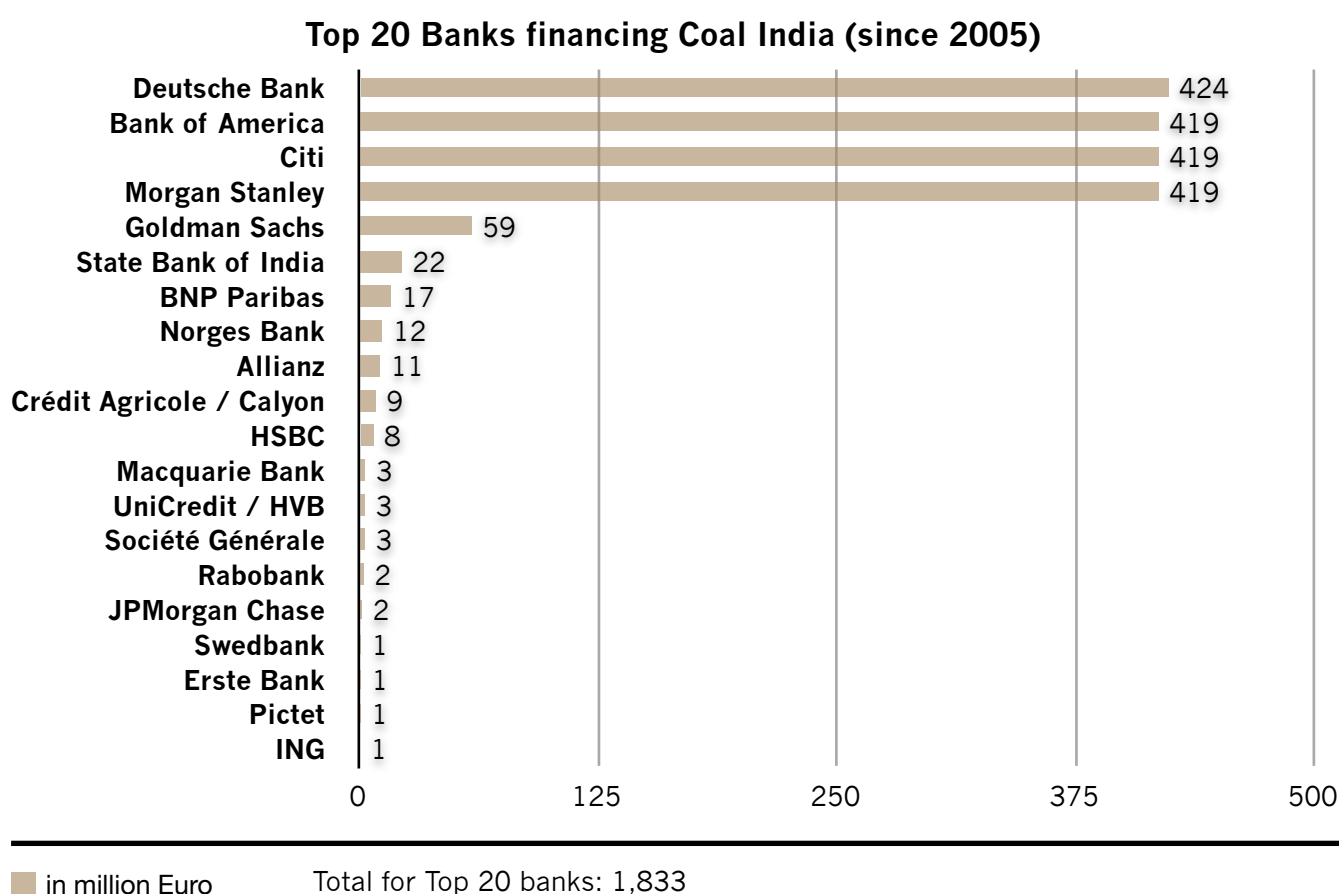


operations abroad and acquire coalmines in Australia, South Africa, the United States and Indonesia.

In the largest-ever initial public offering (IPO) on the Indian stock exchange, Coal India offered 10% of its shares to investors in November 2010. Coal India's prospectus, crafted with the help of Bank of America, Citigroup, Deutsche Bank and Morgan Stanley did not mention climate change or Coal India's disastrous environmental record once in its 510 pages. Financially, the IPO was a huge success: The offering was oversubscribed 15 fold, with the stock soaring on the first day of trading.<sup>20</sup> For the world's climate, this was a black day.

### Banks financing Coal India

All in all, 24 of the researched banks were involved in financing Coal India and provided the company with over 1.8 billion Euro. The following table lists the top twenty banks.



### III.3. Colombia: A Mine Takes Much More from the Land than Coal

Colombia is the largest coal producer in South America and the fourth largest coal exporter worldwide.<sup>21</sup>

The country's coal production has increased by 80% since 1999. The world's biggest opencast coalmine is situated in the North of Colombia on the Guajira peninsula and operated by a consortium of Anglo American, BHP Billiton and Xstrata.

For hundreds of years, this land was home to the indigenous Wayúu people, mestizo peasants and Afro-Colombians – escaped slaves who set up communities next to indigenous people and adopted much of their culture. For generations these communities have traded products and customs, creating a unique Guajira culture.

Over the past decades, however, the mine has taken over tens of thousands of hectares of fertile land destroying farms, water sources and towns. The Rancheria River which served many of the communities as a source of drinking water, turned foul and brown with toxic run-off from mining. There is coal dust everywhere, including people's lungs and widespread contamination of water, air and soils has made the surrounding areas uninhabitable.

A 2001 report documented the depressingly predictable long-term effects of the mine on the Wayúu communities: the proliferation of alcoholism and prostitution through the influx of mine workers from other parts of the country, the loss of sacred spaces, a rise in death rates due to poisoning and contamination from the mine and its wastes, a loss of cultural integrity and identity, and dire poverty.<sup>22</sup>

“What a paradox,” says Eder Arregoces Pinto, a councilor from the town of Chancleta. “We are surrounded by the world's largest coal mine, and we don't have enough to eat! Most of the families here can only eat one meal a

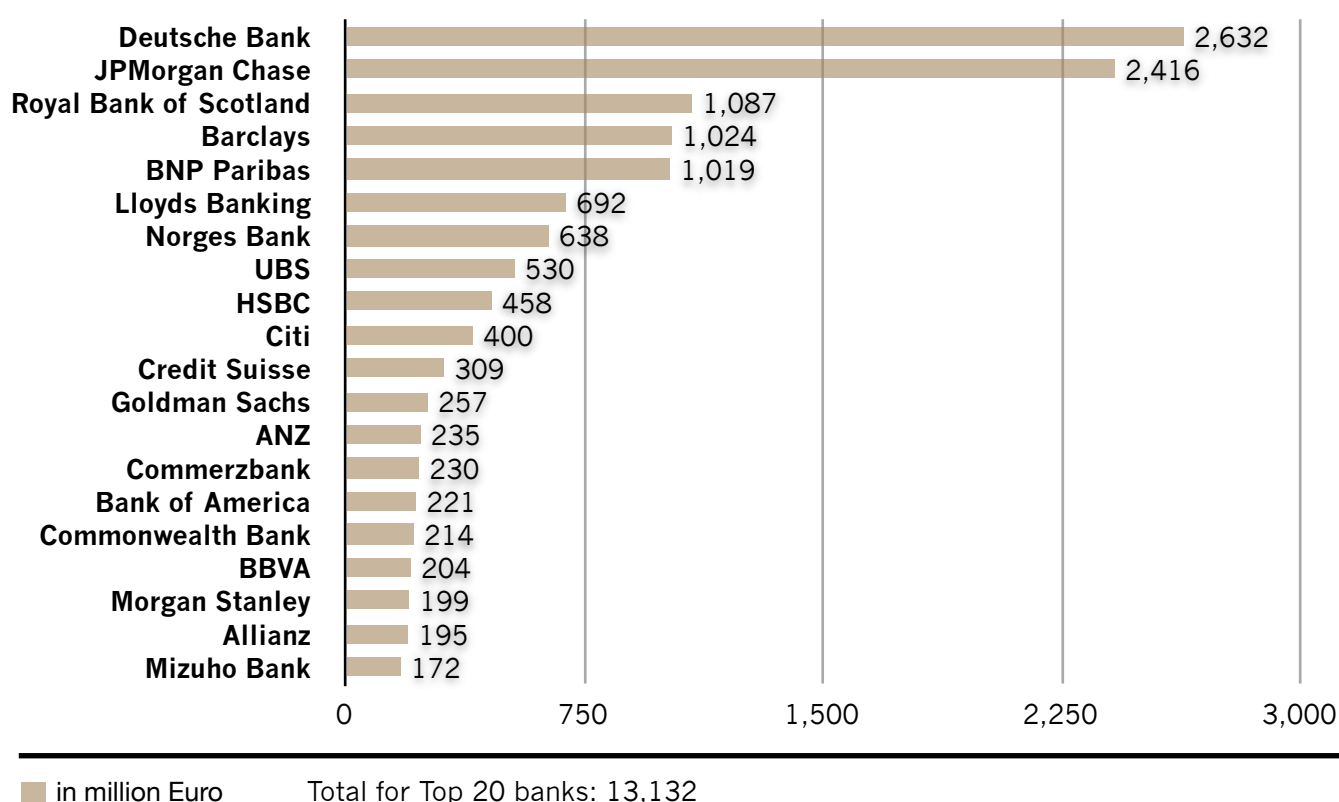
day, all because we don't have land anymore. The environmental situation is worse than critical. The government pursues people who plant bombs and kill people. But what about a company that is slowly killing off people with contamination?"<sup>23</sup>

Towns protesting the effects of the mine were dispersed by violence or residents were pressured to sell their land as the mining companies purchased surrounding pasture and destroyed churches, schools, and community centers. The communities have fought back through the Colombian legal system for recognition of their rights and against the companies' massive environmental destruction.<sup>24</sup> But even when they have won in the courts, the decisions have not been enforced. Meanwhile, the coalmines continue to expand in Guajira and other parts of the country.

### Banks financing Mining Companies active in Colombia

73 of the researched banks provided financing to Anglo American, BHP Billiton and Xstrata, which are three of the main mining companies active in Colombia. All together, banks provided over 15 billion Euro to these companies. The following table shows the top twenty financiers of Anglo American, BHP Billiton and Xstrata.

#### Top 20 Banks financing Anglo American, BHP Billiton and Xstrata (since 2005)





## IV. BURNING COAL

Burning coal is one of the dirtiest ways to generate electricity. Coal-fired power plants emit more than 60 different hazardous air pollutants, including toxics such as mercury, dioxin, arsenic, radionuclides, cadmium and lead.<sup>25</sup> From smog to mercury to sulfur, coal-fired power plants are one of the biggest sources of air pollution.

The consequences for human health are staggering, especially with regard to particle pollution. Particle pollutants or soot can be inhaled deep into the lungs where the smallest particles cross directly into the blood stream. A recent study found that particle pollution from U.S. power plants is cutting short the lives of over 30,000 people each year.<sup>26</sup> Pollution by coal-fired power plants, of course, also harms the environment, causing acidification of water and damaging forests, soils and crops.

Coal fired power plants require huge amounts of water for cooling purposes<sup>27</sup> and they produce huge amounts of waste. Known as coal combustion wastes, these toxic byproducts are both solid and liquid. They include fly ash from the smokestacks and bottom ash (from the bottom of the boiler). They also include the particles and chemicals trapped by pollution controls like scrubber sludge. Finally, they include many low volume wastes like run-off from coal reserve piles and liquid wastes from cleaning operations. Although some solid coal wastes are used in construction materials, most coal wastes are either destined for landfills or surface impoundments.

And coal-fired power plants, of course, have the highest output of carbon dioxide among all fossil fuels. A third of all carbon dioxide emissions come

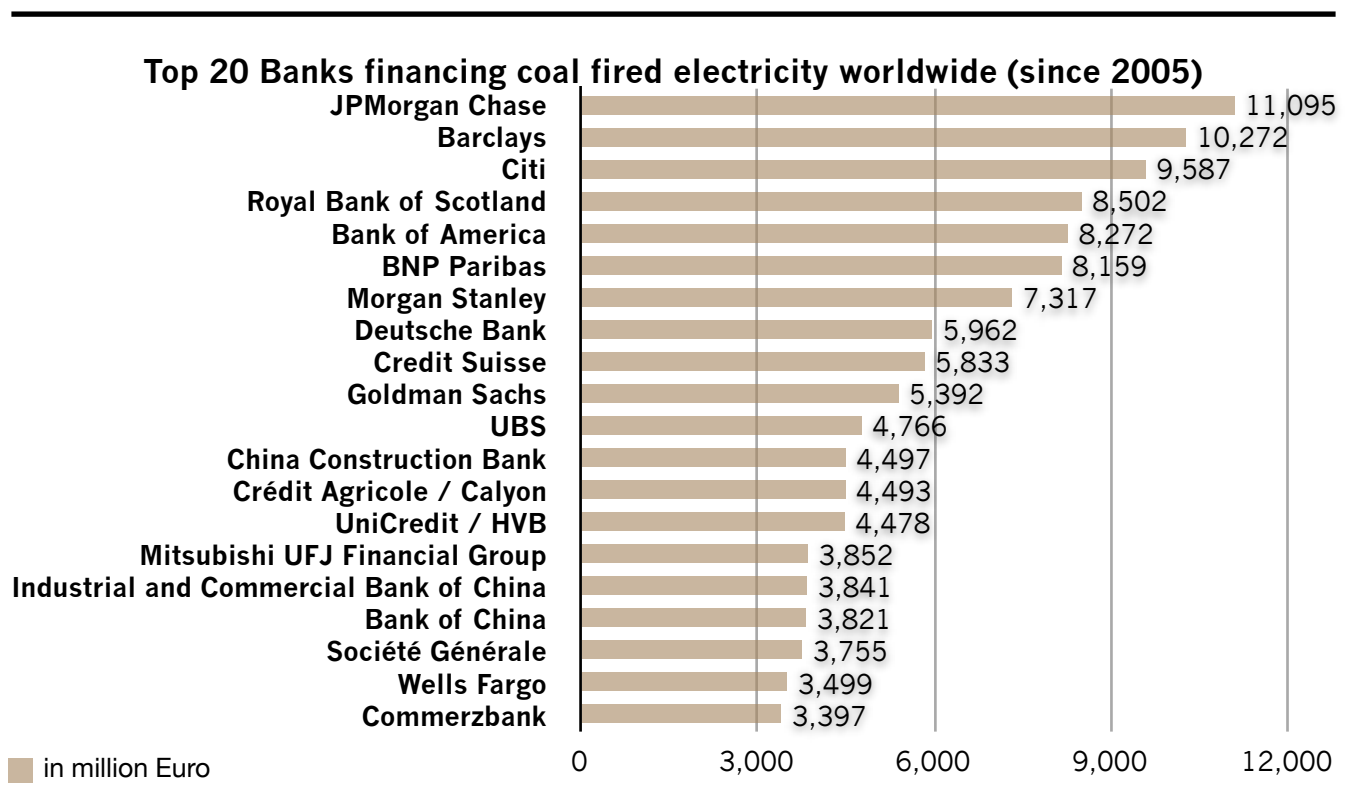
from burning coal.<sup>28</sup> Today, coal is used to produce nearly 40 percent of the world's power, and hundreds of new coal plants are planned over the next years.

In Europe over a hundred new coal-fired power plants are in a planning stage or under construction. Last year, 173 coal-fired power plants were approved for construction in India – that's one power plant every 2 days.<sup>29</sup> All told, India has enough plants in the pipeline to expand its coal-fired capacity by 600% over the next two decades. In China, two new coal plants are being completed per week. If China's carbon usage keeps up this pace, the country's carbon dioxide emissions in 2030 will equal the entire world's CO<sub>2</sub> production today.<sup>30</sup> Things are clearly out of control.



## IV.1. Bankrolling Coal-fired Power Plants

Through corporate finance, project finance and investment banking, banks have provided coal-fired electricity companies with over 159 billion Euro since 2005. The following table shows the top twenty banks in this sector.



Asset management is not included. The figures cover project finance and capital raised through investment banking and corporate loans.

Coal ash disposal site in China



Photo: Zhao Gang / Greenpeace



## IV.2. Toxic Winds in China

China's coal sector is not only the world's largest, but also the most dangerous and polluting. In 2009, China burned more than three billion tons of coal. More than half of this amount was consumed by the thermal power industry, with one ton of coal ash produced for every four tons of coal burned.

According to a report by Greenpeace, the production of coal ash reached 375 million tons in 2009, more than twice the total amount of solid urban waste produced every year in China.<sup>31</sup>

Coal ash contains a high concentration of heavy metals and other toxic pollutants, including arsenic, lead, selenium and mercury. Most thermal power plants simply dump the coal ash into open-air disposal sites without even basic measures to prevent secondary dispersal. Villages, groundwater and farmland near these sites are seriously polluted. Crops fail, water becomes poisonous and skin and respiratory diseases are ubiquitous.

Pollution through coal combustion is, however, not limited to these areas. Coal ash is whipped into the atmosphere by strong winds, spreading it as far as 150,000 square kilometers from its origin. When sand storms, originating in arid regions in Central Asia and northwestern China, pass through intensive coal-burning areas such as Shanxi, Shaanxi and Inner Mongolia they pick up the ash and other coal combustion pollutants, creating toxic coal dust storms that are dumped on urban areas in northern and eastern China.<sup>32</sup> These toxic storms pose a serious threat to public health. In China, respiratory disease is already the second largest cause of adult deaths – 13.9% of the total.<sup>33</sup> The World Bank calculates that the costs of exposure to fossil fuel particulates for urban residents will rise to nearly US\$ 400

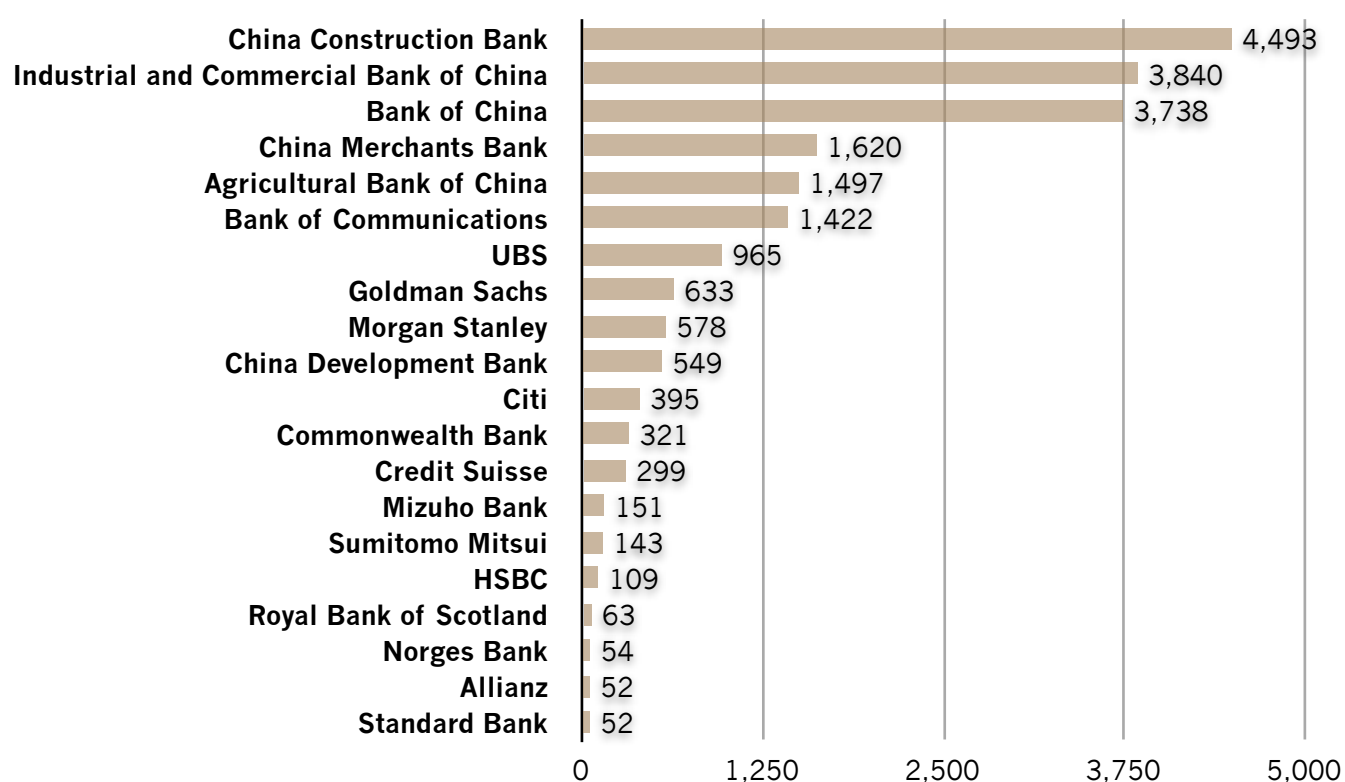


billion in 2020, equivalent to 13% of GDP. Coal pollution has become the country's biggest environmental problem.<sup>34</sup>

### Top Banks financing Chinese coal fired electricity companies

53 of the researched banks were involved in financing the following companies: China Datang Group, China Guidian Group, China Huadian Group, China Huaneng Corporation, China Power Investment Corporation, China Resources Power, Guandong Yudean Group, SDIC, Zhejiang (Provincial) Energy Group Company. All together, banks supplied these companies with over 21.2 billion Euro. The table shows the top twenty banks financing these corporations.

#### Top 20 Banks financing the biggest coal fired electricity companies in China (since 2005)



■ in million Euro

Total for the Top 20 banks: 20,973

## IV.3. Coal Plants in South Africa – the Poor Pay the Costs

South Africa is the eleventh biggest CO<sub>2</sub> emitter worldwide, with a per capita emission that is higher than that of many European countries.<sup>35</sup> The state utility Eskom accounts for a large part of these emissions as it generates over 90% of its electricity in coal-fired power plants.

Eskom's newest projects are gargantuan. The Medupi and Kusile power plants (4,800 MW each) will be six times as big as typical coal-fired power plants in Germany and will produce estimated emissions of over 60 million metric tons of CO<sub>2</sub> annually. It is estimated that some 40 new coalmines will be needed to supply both plants with fuel. Kusile alone will increase the South African energy sector's CO<sub>2</sub> equivalent emissions by 12.8%.<sup>36</sup>

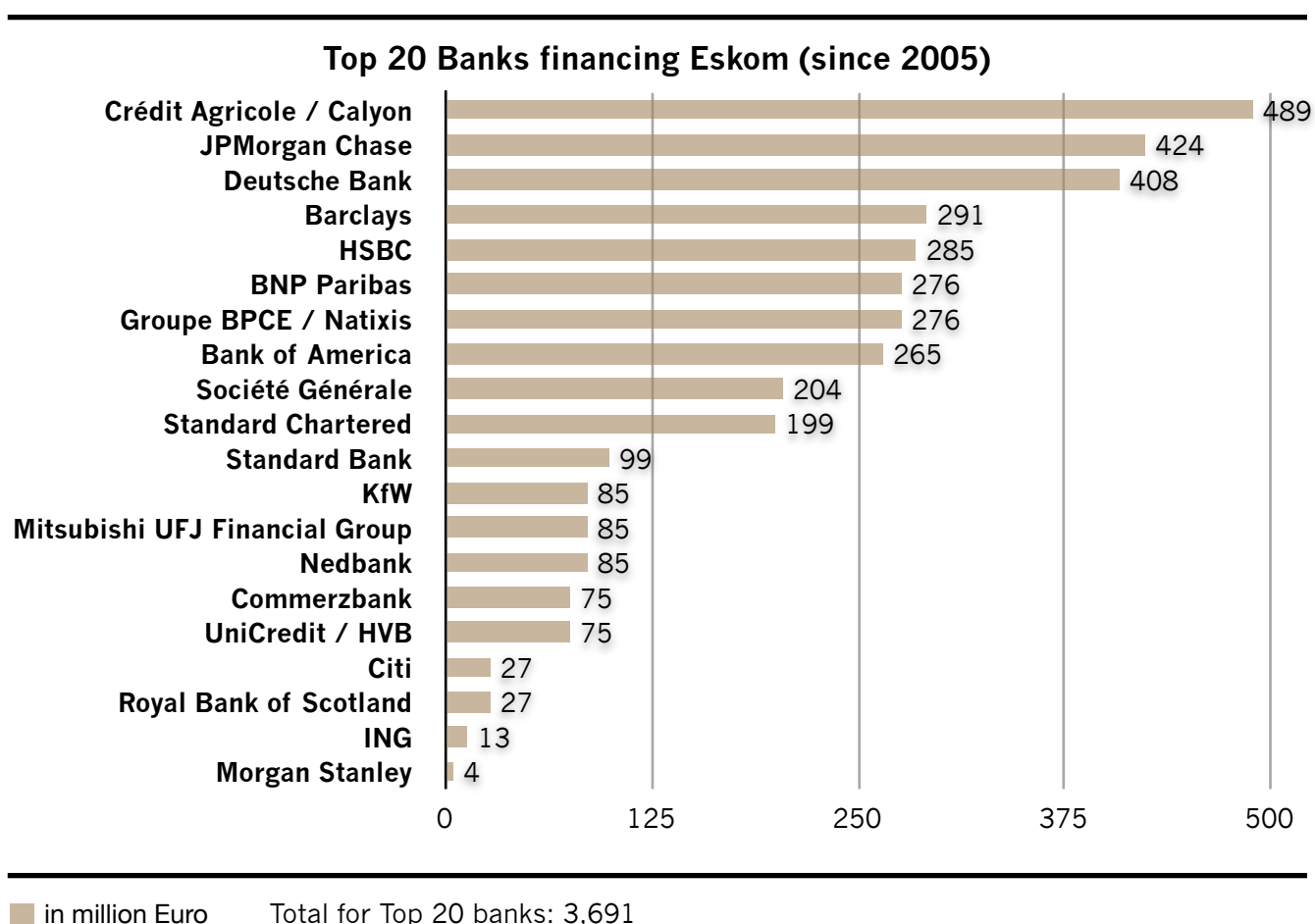
According to the UN Intergovernmental Panel on Climate Change (IPPC), climate change will affect Africa dramatically, reducing farmer's ability to feed themselves by 50%. Adding more coal power plants to the grid instead of investing in alternative sources of energy and power generation contributes to this climate burden. Through their loans for Medupi and Kusile, banks are locking South Africa into dependence on dirty energy for decades to come, instead of facilitating a transition to clean energy sources.

Most importantly, the projects will increase energy inequality. 25% of South Africans have no access to electricity at all and 33% have only limited access. While poor urban households are already forced to spend around 20% of their income on energy, Apartheid-era "special pricing agreements" give big companies guaranteed rates that are among the lowest in the world. Since the approval of the Medupi project in April 2010, electricity prices for

households have gone up 137%, thus forcing many poor people to curtail electricity use or even drop off the grid. And Eskom has announced additional rises of at least 25% to finance Kusile.<sup>37</sup> These power plants will provide subsidized dirty energy to rich corporations, while putting the burden of increased pollution, depleted water resources, impaired health and rising electricity costs on the poor.

## Banks financing Eskom

26 of the researched banks were involved in financing Eskom and provided the company with 3.7. billion Euro. The following table only mentions the company's top twenty financiers.



Next to above sums, banks have also supported Eskom via loans made to contractors for delivering equipment to Eskom's coal-fired power plants. The following banks, for example, helped finance Medupi and/or Kusile by providing finance to Hitachi Power Europe: KfW, Deutsche Bank, BNP

Paribas, Calyon, Credit Agricole, Commerzbank, HypoVereinsbank, Natixis, Bank of Tokyo-Mitsubishi UFJ and HSBC. Further banks that participated in a loan to Alstom to fund turbines and other equipment for Medupi and Kusile. Among these were: BNP Paribas, Calyon, CIC, Natixis, Société Générale and Crédit Agricole. Banks, however, also play a role as financial advisors. JP Morgan Chase and Credit Suisse took on this role for Eskom in 2010.

## V. RESISTING COAL

In the past decades, protests against coal were mostly against coal mining, especially where open pit mining was destroying large land areas, forcing people to leave their homes and creating health risks through toxic waste and uncontrolled fires.

Protests against coal-fired power plants initially came into the picture because of health problems and dirty smoke emissions and later because of less visible, but dangerous emissions like sulphur dioxide, which became famous as the cause of acid rain, or nitric oxide, fine particles and heavy metals. These result in respiratory diseases and can cause asthma especially among children and elderly people. Thus until today, it is often physicians speaking out first against the construction of new coal-fired power plants. Lately, another reason to resist coal plants has been added to the list: the fight against rising CO<sub>2</sub> emissions and accelerating climate change.

The concern about climate change brought about a new generation of protests, some of which have been quite successful. In Germany, for example, out of 31 planned new coal plants, 16 were cancelled (Lubmin, Berlin, Kiel, Stade, Brunsbüttel, Wilhelmshaven, Emden, Dörpen, Bremen, Krefeld, Düsseldorf, Köln, Mainz, Ensdorf, Gemersheim, Quierschied), with two more blocks looking into an unclear future (Datteln, Herne).<sup>38</sup> Several of





Nakhon Si Thammarat, Thailand: Protest against new coal-fired power plants



the plants still under consideration are fiercely opposed by local initiatives, which include physicians, churches, creative artists and even industrial associations. They receive support from environmental lawyers and national environmental organisations. But the resistance has also sprouted new groups and taken on new protest forms including climate-pirates, climate camps and coal-dinosaurs. The result is a growing national movement resisting further investments into coal.

Similarly in the UK, plans for seven coal power plants (Kingsnorth, Blyth, Filbury, Cockenzie, High Marnham, Westfield and Immingham) were abandoned or shelved after meeting broad public opposition over the last years. The promoting companies took the public stance that the economic conditions were not right, while privately admitting that public opposition was as important a factor in their decisions as the lack of government financial support. And in the US, where everything is bigger, around 150 proposed coal-fired power plants have been cancelled.<sup>39</sup>

Resistance against coal-fired power stations is, however, not restricted to developed countries. In spite of promises of development and electricity for the poor, the Medupi plant in South Africa was met with fierce opposition including community, environmental, peace, social justice and womens' groups, as well as churches and unions. Similarly in Thailand, people don't buy into the argument that new coal-fired plants are a solution for their energy needs. The Electricity Generating Authority of Thailand (EGAT) is striving to build at least nine new coal-fired power plants totalling 8,400 MW in capacity.<sup>40</sup> In February 2011, thousands of citizens protested, calling on EGAT to withdraw its plans due to the negative social, environmental and economic impacts of coal power development.<sup>41</sup> In the Philippines, environmentalists and locally affected people are criticising president Aquino for his support of coal plants and demanding alternatives: "It shows his adamant subservience to the dictate of foreign and private energy companies. Even if it is sustainable, reliable and cheaper to develop our own indigenous renewable resources, the government chooses to remain dependent on imported dirty energy sources," says the activist group *Philippine Climate Watch Alliance*.<sup>42</sup>

## V.1. Banks Have Become Targets

Given the importance of “the economic conditions being right,” campaigners working against new coal plants have begun addressing the financing angle, and targeting the banks providing financing for coal plants.

This includes work in the U.S. against financing of TXU, an energy utility planning to build up to 23 GW of new power plants, making the company the largest corporate emitter of greenhouse gases in the United States.

*Rainforest Action Network* (RAN) approached the three lead arranging banks for TXU in order to block financing for the expansion. RAN and the *Sierra Club* have also campaigned against financing of Mountaintop Removal (MTR), and forced several banks to adopt policies restricting their involvement with companies using MTR mining practices. Under the slogan “Not One More Dollar,” RAN is currently organizing a consumer boycott of Bank of America because of its massive support for the polluting coal industry.

Similar campaigns are going on in other countries. In the UK, the NGO *Platform* is running a climate campaign against the Royal Bank of Scotland;<sup>43</sup> in Belgium, the NGO *Netwerk Vlaanderen* is campaigning against the “coal banks” BNP Paribas, Axa and Deutsche Bank.<sup>44</sup> In France *Les Amis de la Terre* awarded a “Pinocchio Prize” for green washing to Crédit Agricole as one of the largest financiers of CO<sub>2</sub> emissions and *Greenpeace Australia* recently forced four Australian banks to reject financing for a 600 MW lignite-fired power plant.<sup>45</sup> Only this year, a new European network of NGOs was created to specifically target the financiers of new coal-fired power plants. New international campaigns have also sprung up, focusing for example on coalmining projects, like the Phulbari Mine in Bangladesh and targeting banks and hedge funds, which own shares of the mining company.<sup>46</sup>

Out of 31 planned coal plants in Germany,  
16 have been cancelled due to protests.



Local as well as national and international civil society organizations are challenging coal development through legal means, public pressure campaigns and civil disobedience. These are no longer “safe investments.” Legal and public actions lead at the very least to long delays and rising costs. And even if coal-fired power plants are built, tightened climate protection goals could force them into early retirement. This would result in large financial losses, something experienced recently by German utilities running nuclear power plants.

The main message banks should be getting from these campaigns, however, is that there is a huge reputational price tag attached to coal financing. And it will continue to grow.

## **VI. BANKS’ CLIMATE POLICIES: FROM DENIAL TO GREENWASHING**

For years, private banks limited their corporate responsibility on climate issues to what they call “direct impacts,” i.e. the emissions coming from heating or air-conditioning bank offices or from car and airplane travel of bank employees.

Confronted with NGO campaigns targeting financing for oil pipelines, tar sands and coal-fired power plants, banks have over the past few years begun to acknowledge that their biggest impact on climate is, in fact, through their core financial business.

This recognition paved the way for the adoption of new voluntary “standards” in form of either sector policies adopted by individual banks or collective principles formulated by a group of banks. Unfortunately, however,



these policies and principles are extremely vague and inadequate as a response to the risk of accelerating climate change.<sup>47</sup>

In the past few months, for instance, several banks adopted performance standards for the financing of new coal-fired power plants in developing countries, with an intensity ceiling of 850 gCO<sub>2</sub>/kWh or an energy efficiency rate of 38%.<sup>48</sup> These represent little tangible benefit for our climate compared to an "anything goes" policy: Indeed, the current world average emission intensity of power generation is already 540 gCO<sub>2</sub>/kWh according to the IEA.<sup>49</sup> China's current intensity is 800 gCO<sub>2</sub>/kWh and India is projected to achieve an intensity below 800 gCO<sub>2</sub>/kWh before 2015.<sup>50</sup> Private banks are thus only following existing trends rather than catalysing better standards.

The Carbon Principles, which were adopted by several U.S. banks and Credit Suisse in February 2008, only target the financing of new coal power plants in the United States. Moreover, their focus is reducing risks to the banks through anticipated regulatory responses to climate change rather than limiting the actual climate impacts of banks' investments. As Rainforest Action Network pointed out in its latest report "The Principle Matter – Banks, Climate and the Carbon Principles", published in January 2011, "There is no evidence that the Carbon Principles have stopped, or even slowed financing to carbon-intensive projects."<sup>51</sup>

The Climate Principles, which were adopted by HSBC, Standard Chartered, Credit Agricole, Swiss Re and F&C Asset Management in December 2008 and joined by BNP Paribas in June 2010, have a broader scope, but nonetheless follow the same trend as the Carbon Principles. They focus on due diligence procedures and managing the economic risks of climate change for banks' business instead of setting standards that will actually reduce the carbon footprint of banks' portfolios.

The Climate Group's recently published "Guidance note on Financing New Coal-Fired Power Plants"<sup>52</sup> is a case in point. It proposes to continue financing coal power plants emitting up to 830 gCO<sub>2</sub>/kWh, which represents little to no improvement over business as usual. The Climate Group justifies continued financing of coal-fired power plants with the supposed future use of Carbon Capture and Storage (CCS) on a global scale. But considering all the technical, legal and other open issues surrounding CCS and the fact that this is an unproven technology, this seems like a Russian roulette approach to climate risks.



The most concrete individual bank policy in this regard is probably WestLB's policy on "Business activities related to coal-fired power generation."<sup>53</sup> It basically states that WestLB will only finance coal-fired power plants that are economically viable under a CCS-scenario and that operators "are required to provide the physical space necessary to carry out carbon capture." Although this does weed out some of the new coal plants seeking finance on the market, it is a far cry from a responsible approach to coal's environmental, social and climate impacts.

The fact is that while banks are employing a lot of "climate speak", this is more or less a smoke screen to continue their financing of the coal industry. None of the adopted policies focus on what counts: the calculation and publication of banks "financed emissions" and the implementation of emissions reduction targets.<sup>54</sup>



## Climate risks are, of course, also business risks.

Thus, the guidance note of the Climate Group recognizes that coal fired power plants built now, could face “early retirement and resulting financial losses” if CCS technologies don't become viable quickly enough to meet emission reduction targets. Given the high level of uncertainty surrounding CCS, we can conclude that if banks are today willing to finance very high carbon emitting investments with a lifetime of 30 – 50 years, they are in a sense betting on the failure of international negotiations and the absence of any climate regulations impacting these projects.

Another example of this casino approach to climate risks management was brought to light by the report “Unburnable Carbon – Are the world's financial markets carrying a carbon bubble?”<sup>55</sup> published by the *Carbon Tracker Initiative* in July 2011. The report demonstrates that international markets and private banks have “unburnable carbon” embedded in their assets that **must not** be emitted if we are to stay below the 2°C threshold. These assets are considered to be “technically unburnable” and thus constitute a « carbon bubble » that is creating systemic risks for institutional investors, and the big international banks asset managers. In the absence of fundamental changes in the way financial markets treat climate risks, this « carbon bubble » will lead us straight to a « carbon crash.»

Although, banks fail to even incorporate the business risks of high-carbon investments in their decision-making processes, there is an ever-growing hype on seeking the “business opportunities” in climate change. While NGOs are encouraging banks to shift their portfolios towards financing renewable energy and energy conservation and efficiency, the focus of “climate business” is often carbon trading<sup>56</sup> or investments into controversial sectors such as large hydropower, nuclear or massive biofuel plantations. These all have little impact on solving the climate crisis, but have disastrous impacts on the environment and local communities.

## VII. WHAT TO DO:

Banks are obviously not the only players when it comes to the climate crisis. They are, however, important players and it is a fact that their current and future investment decisions have a huge impact on climate – for better or for worse.

Our study shows that in spite of banks' verbal commitments towards addressing the climate crisis, their financial commitments to the coal industry have almost doubled since 2005, the year the Kyoto Protocol came into force.

Our first and foremost message is therefore:

**Stop bankrolling climate change - Quit coal!**

Banks need to end support for new coal extraction and delivery projects. Science tells us that current economically accessible fossil fuel reserves are already several times higher than the amount we can burn and still stay under the 2°C IPCC threshold.<sup>57</sup> Any further financing by private banks for new extraction and delivery projects for coal, the most carbon intensive of fossil fuels, will only fuel the crisis. Banks should also stop investing into other highly CO<sub>2</sub> intensive fossil fuel extraction projects, such as tar sands and arctic drilling.

Today's investments are tomorrow's emissions. Continuing to finance new coal-fired power plants that will emit huge amounts of CO<sub>2</sub> over the coming decades is irresponsible. Betting on the assumption that CCS will at some future point alleviate these emissions is a gamble our climate cannot afford. Banks need to end all support for new coal-fired power plants today.

If banks are serious about taking on the climate challenge and playing their part in solving it, they must significantly change their core business activities and disengage from activities, projects and sectors that substantially contribute to climate change. The first step in this direction is for banks to assess, calculate and report on GHG emissions associated with their loans, investments and other financial services. The methodology for this already exists.<sup>58</sup> The second step is for banks to establish sufficiently ambitious portfolio and business unit emissions reduction targets.

In our view, the calculation of financed emissions should become mandatory. Banks also need to disclose the "unburnable carbon" they hold as climate liabilities in their different business portfolios. This information can then be used by investors to fully assess the risk of being confronted with "stranded climate assets," when they invest into private banks.

And last, but not least, banks should dramatically increase their support for renewable energy production and energy conservation and efficiency in all business lines. Bank portfolios need to be shifted away from dirty fossil fuels and dangerous nuclear to clean, safe and sustainable forms of energy generation.





**THERE  
IS NO  
PLANET B**

**NATURE  
DOESN'T  
COMPROMISE**

**CLIMATE  
JUSTICE**

**Demonstration  
16. dec.  
Reclaim  
Power**

**350**



## Annex 1: Coal mining companies

The investments in the following coal mining companies were researched:

No.	Company	Listed subsidiary	Country	Production (Mt)	Production listed subsidiary (Mt)
1	Coal India		India	431.3	
2	Peabody Energy		United States	246.0	
3	Shenhua Group	China Shenhua Energy	China	210.3	210.3
4	Arch Coal		United States	179.0	
5	Alpha Natural Resources		United States	126.0	
6	China National Coal Group	China Coal Energy	China	114.1	100.8
7	Datong Coal Mine Group	Datong Coal Industry	China	113.0	25.8
8	BHP Billiton		Australia	103.5	
9	Anglo American		United Kingdom	99.0	
10	SUEK		Russia	88.0	
11	Shanxi Coking Coal Group	Shanxi Xishan Coal and Electricity	China	80.3	18.6
12	Xstrata		Switzerland	79.9	
13	Rio Tinto Group		UK / Australia	72.8	
14	Consol Energy		United States	62.0	
15	Bumi Resources		Indonesia	60.6	
16	Huainan Coal Mining Group		China	60.0	
17	Kuzbassrazrezugol (KRU)		Russia	49.7	
18	Kompania Weglowa		Poland	48.0	
19	RWE		Germany	45.5	
20	Exxaro		South Africa	45.0	
21	Singareni Collieries Company (SCC)		India	44.5	
22	Shanxi Jincheng Anthracite Mining Group		China	44.3	
23	Yangquan Coal Industry Group	Shanxi Guoyang New Energy Co Ltd	China	44.0	21.0
24	Sasol		South Africa	42.6	
25	Lu'An Group	Lu'An Environmental Energy Development	China	42.1	30.0
26	Adaro Energy		Indonesia	41.0	
27	Kailuan Group	Kailuan Energy Chemical Co Ltd	China	40.4	7.7
28	Samruk Energo		Kazakhstan	38.9	
29	Bogatyr Coal		Kazakhstan	38.0	
30	Pingdingshan Coal Company	Pingdingshan Tianan Coal Mining	China	37.4	37.4

## Annex 2: Coal-fired electricity companies

The investments in the following coal-fired electricity companies were researched:

No.	Company	Listed subsidiary	Country	Coal-fired capacity (MW)	Capacity listed subsidiary (MW)
1	China Datang Group	Datang International Power Generation	China	81,138	10,752
2	China Huaneng Group	Huaneng Power International	China	79,550	33,930
3	China Guodian Group	Several	China	71,287	
4	China Huadian Group	Huadian Power International Corporation	China	59,940	20,218
5	China Power Investment Group	China Power International Development	China	43,200	8,932
6	Eskom		South Africa	34,658	
7	NTPC		India	28,299	
8	RWE		Germany	26,097	
9	Southern Company		United States	24,918	
10	KEPCO		South Korea	24,205	
11	American Electric Power		United States	23,907	
12	ENEL		Italy	22,933	
13	E.ON		Germany	19,278	
14	Guangdong Yuedian Group	Guangdong Electric Power Development	China	18,810	6,905
15	Zhejiang Provincial Energy Group Company		China	18,290	
16	China Resources Group	China Resources Power (64.6% owned)	China	17,943	17,753
17	Duke Energy		United States	16,983	
18	Shenhua Group Corporation	China Shenhua Energy	China	16,548	16,548
19	Tennessee Valley Authority		United States	14,573	
20	Vattenfall		Sweden	12,350	
21	GDF Suez & International Power		France	12,100	
22	Polska Grupa Energetyczna (PGE)		Poland	11,622	
23	Ameren		United States	10,015	
24	DTEK		Ukraine	9,707	
25	MidAmerican Energy		United States	9,494	
26	SDIC	SDIC Huajing Power Holdings	China	9,320	6,570
27	Evonik Industries		Germany	9,091	
28	Taipower		Taiwan	8,800	
29	J-Power		Japan	8,412	
30	Edison International		United States	8,395	
31	Xcel Energy		United States	8,017	
32	CLP Group		Hong Kong	7,929	
33	Dominion Resources		United States	7,898	
34	NRG Energy		United States	7,585	
35	EnBW		Germany	7,548	
36	FirstEnergy		United States	7,457	

## Annex 2: Coal-fired electricity companies

The investments in the following coal-fired electricity companies were researched:

No.	Company	Listed subsidiary	Country	Coal-fired capacity (MW)	Capacity listed subsidiary (MW)
37	Maharashtra State Electricity Board (MSEB)		India	6,800	
38	Chugoku EPCo		Japan	6,353	
39	CEZ Group		Czech Republic	5,940	
40	Tauron		Poland	5,448	

**Annex 3: Ranking of all 93 Banks**

Total finance in coal mining and coal fired electricity for all researched banks 2005-2011

<b>Bank</b> alphabetical order	<b>Project finance, investment banking and corporate loans</b> in million Euro	<b>Assets</b> in million Euro	<b>Total</b> in million Euro	<b>Ranking</b>
Agricultural Bank of China	2,521.88	25.36	2,547.24	26
Allianz	-	2,125.76	2,125.76	28
ANZ	723.80	-	723.80	49
apoBank	-	2.12	2.12	92
Banco Bradesco	-	4.64	4.64	90
Banco do Brasil	80.77	20.51	101.28	79
Bank of America	12,062.98	526.68	12,589.66	3
Bank of China	6,149.58	172.99	6,322.58	12
Bank of Communications	1,739.27	51.77	1,791.05	34
Bank of India	41.73	-	41.73	83
Barclays	11,485.52	28.20	11,513.71	5
BayernLB	895.25	10.17	905.42	46
BBVA	2,091.04	23.05	2,114.09	29
BHF Bank	-	92.51	92.51	80
BMO Financial	480.19	90.58	570.77	55
BNP Paribas	9,624.43	1,069.74	10,694.16	8
Caja Madrid	548.23	-	548.23	56
China Construction Bank	5,109.89	-	5,109.89	16
China Development Bank	1,152.62	-	1,152.62	39
China Exim Bank	354.20	-	354.20	64
China Merchants Bank	1,924.58	9.28	1,933.86	32
CIBC	270.16	19.92	290.07	67
Citi	13,630.47	120.42	13,750.90	2
Commerzbank	3,834.93	181.00	4,015.94	21
Commonwealth Bank	609.90	576.05	1,185.96	38
Crédit Agricole / Calyon	5,173.00	463.56	5,636.56	14
Crédit Mutuel	537.04	80.93	617.97	52
Credit Suisse	8,571.16	923.72	9,494.89	9
Danske Bank	39.44	126.23	165.67	73
DekaBank	24.57	283.68	308.25	66
Deutsche Bank	10,054.88	1,422.51	11,477.38	6
Deutsche Postbank	199.56	5.77	205.34	72
Dexia	92.08	64.53	156.61	75
DZ Bank	533.20	400.79	933.98	45
EBRD	251.69	-	251.69	70
Erste Bank	711.60	40.48	752.08	47
European Investment Bank	611.44	-	611.44	53
Frankfurter Volksbank	-	1.16	1.16	93
Goldman Sachs	5,924.20	846.07	6,770.27	11

### Annex 3: Ranking of all 93 Banks

Total finance in coal mining and coal fired electricity for all researched banks 2005-2011

<b>Bank</b> alphabetical order	<b>Project finance, investment banking and corporate loans</b> in million Euro	<b>Assets</b> in million Euro	<b>Total</b> in million Euro	<b>Ranking</b>
Groupe BPCE / Natixis	1,084.77	751.47	1,836.24	33
Hauck & Aufhäuser Privatbankiers	-	10.81	10.81	87
Helaba	482.66	5.76	488.42	59
HSBC	3,596.01	835.86	4,431.86	20
HSH Nordbank	114.14	-	114.14	77
ICICI Bank	375.07	17.72	392.79	61
Industrial and Commercial Bank of China	6,177.93	4.17	6,182.09	13
ING	2,018.80	1,283.94	3,302.74	22
Intesa SanPaolo	2,598.40	167.11	2,765.51	23
Itaú Unibanco	86.46	24.47	110.93	78
JPMorgan Chase	14,929.75	1,610.48	16,540.23	1
KBC	515.22	108.70	623.91	51
KfW	540.15	-	540.15	58
La Caixa	274.59	1.42	276.01	69
Landesbank Berlin	-	29.25	29.25	85
LBBW	1,191.50	17.77	1,209.28	37
Lloyds Banking	298.79	682.53	981.32	42
Lombard Odier	8.62	82.05	90.67	81
Macquarie Bank	58.58	192.58	251.15	71
Mediobanca	1,415.08	-	1,415.08	36
Mitsubishi UFJ Financial Group	4,642.04	338.26	4,980.30	17
Mizuho Bank	2,280.05	369.81	2,649.86	25
MM Warburg & Co	-	5.58	5.58	89
Morgan Stanley	11,493.81	623.43	12,117.24	4
National Australia Bank	628.47	-	628.47	50
National Bank of Canada	-	3.00	3.00	91
Nedbank	119.35	-	119.35	76
Norddeutsche Landesbank	277.93	8.84	286.77	68
Nordea	846.79	188.99	1,035.78	41
Norges Bank	-	1,982.06	1,982.06	31
Pictet	3.10	938.45	941.55	44
Rabobank	114.46	261.30	375.76	63
Raiffeisen Zentralbank	265.60	54.01	319.61	65
Royal Bank of Canada	352.41	190.81	543.22	57
Royal Bank of Scotland	10,918.68	27.45	10,946.12	7
Santander	1,963.55	102.33	2,065.88	30
Sberbank	9.84	-	9.84	88
Scotiabank	2,192.91	7.99	2,200.90	27
SEB Bank	827.07	121.33	948.39	43



**Annex 3: Ranking of all 93 Banks**

Total finance in coal mining and coal fired electricity for all researched banks 2005-2011

<b>Bank</b> alphabetical order	<b>Project finance, investment banking and corporate loans</b> in million Euro	<b>Assets</b> in million Euro	<b>Total</b> in million Euro	<b>Ranking</b>
Société Générale	4,308.51	433.74	4,742.25	18
Standard Bank	273.33	173.89	447.22	60
Standard Chartered	734.22	-	734.22	48
State Bank of India	1,031.64	39.12	1,070.77	40
Sumitomo Mitsui	2,204.75	510.64	2,715.39	24
Swedbank	39.44	122.12	161.56	74
TD Bank	464.62	113.50	578.12	54
UBI	11.43	8.67	20.10	86
UBS	6,737.32	1,479.72	8,217.04	10
UniCredit / HVB	4,709.53	521.70	5,231.22	15
Universal Investment Gesellschaft	-	61.71	61.71	82
Wells Fargo	4,127.50	395.61	4,523.11	19
WestLB	1,550.13	1.42	1,551.56	35
Westpac	376.68	-	376.68	62
WGZ Bank	15.90	24.55	40.44	84
<b>Total for all researched banks</b>	<b>207,342.85</b>	<b>24,746.31</b>	<b>232,089.16</b>	

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**urgewald**  
[heffa@urgewald.de](mailto:heffa@urgewald.de)  
Tel: (49)-2583-1031  
[www.urgewald.de](http://www.urgewald.de)

**groundWork**  
[team@groundwork.org.za](mailto:team@groundwork.org.za)  
Tel: (27)-33-3425662  
[www.groundwork.org.za](http://www.groundwork.org.za)

**Earthlife Africa Johannesburg**  
[seccp@earthlife.org.za](mailto:seccp@earthlife.org.za)  
Tel: (27)-11-339 3662  
[www.earthlife.org.za](http://www.earthlife.org.za)

**BankTrack**  
[yann@banktrack.org](mailto:yann@banktrack.org)  
Tel: (33)-688-907868  
[www.banktrack.org](http://www.banktrack.org)