Banking on Climate Change

FOSSIL FUEL FINANCE REPORT CARD *2019*

RAINFOREST ACTION NETWORK
BANKTRACK
SIERRA CLUB
OILCHANGE INTERNATIONAL
Indigenous Environmental Network
HONOR THE EARTH

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Bank name acronyms used in this report:

ANZ:	Australia and New Zealand Banking Group
BBVA:	Banco Bilbao Vizcaya Argentaria
CIBC:	Canadian Imperial Bank of Commerce
DBS:	Development Bank of Singapore
ICBC:	Industrial and Commercial Bank of China
MUFG:	Mitsubishi UFJ Financial Group (Bank of Tokyo-Mitsubishi UFJ)
NAB:	National Australia Bank
OCBC:	Oversea-Chinese Banking Corporation
RBC:	Royal Bank of Canada
RBS:	Royal Bank of Scotland
SMBC GROUP:	Sumitomo Mitsui Financial Group (SMFG)
TD:	Toronto-Dominion Bank

Executive Summary

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) released a sobering report on the devastating impacts our world will face with 1.5° Celsius of warming — let alone 2°C — while setting out the emissions trajectory the nations of the world need to take if we are to have any shot at keeping to that 1.5°C limit. This 10th edition of the annual fossil fuel finance report card, greatly expanded in scope, reveals the paths banks have taken in the past three years since the Paris Agreement was adopted, and finds that overall bank financing continues to be aligned with climate disaster.

For the first time, this report adds up lending and underwriting from 33 global banks to the fossil fuel industry as a whole. The findings are stark: these Canadian, Chinese, European, Japanese, and U.S. banks have financed fossil fuels with $1.9 trillion since the Paris Agreement was adopted (2016–2018), with financing on the rise each year. This report finds that fossil fuel financing is dominated by the big U.S. banks, with **JPMorgan Chase** as the world's top funder of fossil fuels by a wide margin. In other regions, the top bankers of fossil fuels are **Royal Bank of Canada** in Canada, **Barclays** in Europe, **MUFG** in Japan, and **Bank of China** in China.

This report also puts increased scrutiny on the banks' support for 100 top companies that are expanding fossil fuels, given that there is no room for new fossil fuels in the world's carbon budget. And yet banks supported these companies with $600 billion in the last three years. **JPMorgan Chase** is again on top, by an even wider margin, and North American banks emerge as the biggest bankers of expansion as well.

This report also grades banks' overall future-facing policies regarding fossil fuels, assessing them on restrictions on financing for fossil fuel expansion and commitments to phase out fossil fuel financing on a 1.5°C-aligned trajectory. While some banks have taken important steps, overall major global banks have simply failed to set trajectories adequate for dealing with the climate crisis.

As in past editions, this fossil fuel finance report card also assesses bank policy and practice around financing in certain key fossil fuel subsectors, with league tables and policy grades on:

- » Tar sands oil: **RBC**, **TD**, and **JPMorgan Chase** are the biggest bankers of 30 top tar sands producers, plus four key tar sands pipeline companies. In particular, these banks and their peers support companies working to expand tar sands infrastructure, such as Enbridge and Teck Resources.
- » Arctic oil and gas: **JPMorgan Chase** is the world's biggest banker of Arctic oil and gas by far, followed by **Deutsche Bank** and **SMBC Group**. Worryingly, financing for this subsector increased from 2017 to 2018.
- » Ultra-deepwater oil and gas: **JPMorgan Chase**, **Citi**, and **Bank of America** are the top bankers here. Meanwhile, none of the 33 banks have policies to proactively restrict financing for ultra-deepwater extraction.
- » Fracked oil and gas: For the first time, the report card looks at bank support for top fracked oil and gas producers and transporters — and finds financing is on the rise over the past three years. **Wells Fargo** and **JPMorgan Chase** are the biggest bankers of fracking overall — and, in particular, they support key companies active in the Permian Basin, the epicenter of the climate-threatening global surge of oil and gas production.
- » Liquefied natural gas (LNG): Banks have financed top companies building LNG import and export terminals around the world with $46 billion since the Paris Agreement, led by **JPMorgan Chase**, **Société Générale**, and **SMBC Group**. Banks have an opportunity to avoid further damage by not financing Anadarko's Mozambique LNG project, in particular.
- » Coal mining: Coal mining finance is dominated by the four major Chinese banks, led by **China Construction Bank** and **Bank of China**. Though many European and U.S. banks have policies in place restricting financing for coal mining, total financing has only fallen by three to five percentage points each year.
- » Coal power: Coal power financing is also led by the Chinese banks — **Bank of China** and **ICBC** in particular — with **Citi** and **MUFG** as the top non-Chinese bankers of coal power. Policy grades for this subsector show some positive examples of European banks restricting financing for coal power companies.

The human rights chapter of this report shows that as fossil fuel companies are increasingly held accountable for their contributions to climate change, finance for these companies also poses a growing liability risk for banks. The fossil fuel industry has been repeatedly linked to human rights abuses, including violations of the rights of Indigenous peoples and at-risk communities, and continues to face an ever-growing onslaught of lawsuits, resistance, delays, and political uncertainty.

The IPCC's 2018 report on the impacts of a 1.5°C increase in global temperature showed clearly the direction the nations of the world need to take, and the emissions trajectory we need to get there. Banks must align with that trajectory by ending financing for expansion, as well as for these particular spotlight fossil fuels — while committing overall to phase out all financing for fossil fuels on a Paris Agreement-compliant timeline.

Introduction – Big Banks Stoke the Flames of the Climate Crisis

A Nightmarish Tale

A "collective scream sieved through the stern, strained language of bureaucratese," was the *New Yorker*'s apt description of the UN Intergovernmental Panel on Climate Change's (IPCC) special report on the impacts of heating the globe by 1.5° Celsius.[1] The "nightmarish tale" that emerges from the 2018 report involves a double whammy: the impacts of 1.5°C will be much worse than previously predicted, and to have a reasonable chance of staying under 1.5°C we need to start *immediately* an unprecedented global effort to reshape our economic priorities so that we can rapidly bend down the emissions curve.

By 2030 — basically only a decade away — carbon dioxide emissions will have to be slashed by 45 percent below 2010 levels. By midcentury, net emissions must be at zero.[2]

In light of this planetary emergency, we have greatly increased the scope of this annual fossil fuel finance report card. In 2016 we expanded from a focus on coal to also analyzing bank support for some types of oil and gas. Yet given the flashing red light warning from the IPCC last year, as well as the recent deadly storms, droughts, and wildfires that are the cruelly visible signs of the 1°C of warming we have already experienced, this report now analyzes bank support for *all* fossil fuels.

This year we are again dissecting private bank support for the biggest companies in a number of problematic fossil fuel subsectors (this year, including fracking). But for the first time, we are also zooming out to look at financing for over 1,800 companies across the coal, oil, and fossil gas sectors globally over the past three years. These companies are active throughout the fossil fuel life cycle — exploration, extraction, transportation, storage, and the generation of fossil fuel electricity.[3] In looking at lending to these companies, as well as the underwriting of stock and bond issuances, this report finds that 33 major global banks poured $1.9 trillion into fossil fuels since the Paris Agreement was adopted.

Also for the first time, we are looking at bank financing for another subset of the fossil fuel universe: the top fossil fuel expansion companies. We've identified the 100 companies whose investments in new fossil fuel extraction, infrastructure, and power most fly in the face of the clear and urgent need to start a managed decline in the use of fossil fuels. These companies — and the banks that finance them — bear a powerful moral responsibility to stop building new coal mines and plants, and oil and gas fields and pipelines. This new infrastructure risks extending by decades the lifespan of a sector whose growth is a cancer upon our planet. The 33 banks under review in this report financed these expanders with $600 billion over the past three years.

One inescapable finding of this report is that **JPMorgan Chase** is very clearly the world's worst banker of climate change. The race was not even close: the $196 billion the bank poured into fossil fuels between 2016 and 2018 is *nearly a third* higher than the second-worst bank, **Wells Fargo**.

The massive economic weight of the U.S. oil and gas industry can be easily seen in the fact that the top four bankers of climate change are all headquartered in the United States — **JPMorgan Chase**, **Wells Fargo**, **Citi**, and **Bank of America**. With **Morgan Stanley** in 11th place and **Goldman Sachs** in 12th, all six of the U.S. banking giants are in the top dirty dozen fossil banks; together, they account for an astonishing 37 percent of global fossil fuel financing since the Paris Agreement was adopted. The Canadian banks **RBC**, **TD**, and **Scotiabank** also hold top rankings, meaning only three of the top 12 fossil bankers are from outside North America (**Barclays**, **MUFG**, and **Mizuho**.)

Though in a different order, 10 of those 12 fossil banks are also the top bankers of fossil fuel expansion. And here, **JPMorgan Chase** sticks out even more as the worst of the worst: the bank's $67 billion in finance for expansion over the past three years was a stunning two-thirds higher than the second-biggest banker of fossil fuel expansion (**Citi**).

Subsector Financing

JPMorgan Chase was also the top banker over the past three years of three spotlight oil and gas subsectors: Arctic oil and gas, ultra-deepwater oil and gas, and LNG. Our research shows an uptick in overall bank financing for Arctic oil and gas last year, which is worrisome considering the Trump regime's attempts to open up the Arctic Refuge for drilling, as described on page 38. **JPMorgan Chase** is the biggest banker of Arctic oil and gas by a long shot, followed by **Deutsche Bank** and **SMBC Group**.

To be sure, **JPMorgan Chase** is not the worst on *absolutely everything*. The big four Chinese banks pour vastly more money into coal than their international competitors. In fact, last year **Agricultural Bank of China**, **Bank of China**, **China Construction Bank**, and **ICBC** were responsible for 71 percent of finance from major global banks for the coal mining subsector, and 55 percent of coal power finance.

Overall finance from the 33 banks analyzed fell only slightly over the past three years in both the coal mining and power sectors. This is obviously grossly inadequate to the task of meeting the IPCC's "pathway" to staying below a 1.5°C increase in global temperature, which calls for a 78 percent drop in coal emissions by 2030 — and also unacceptable given that pollution from coal burning is estimated to cause over 800,000 premature deaths per year globally.[4] Notably, **Wells Fargo** and **Natixis** were found not to have led any transactions for top coal mining companies since the Paris Agreement, and **CIBC** and **Bank of Montreal** were in the same position on coal power.[5]

At the same time, bank policies on restricting financing for coal are on average much better than their policies in other sectors. Five of the banks reviewed here received B-range grades across the coal mining and power sector: the four French banks, and the Dutch bank **ING** (a B-range grade requires a prohibition on financing for new projects and a commitment to restrict some financing for coal companies). Overall, nine of these 33 banks issued new policies on coal finance in the year since the publication of last year's report card, including **RBS** and **SMBC Group**. The four big Chinese banks remain at the bottom of the class on coal, with Fs all around — as they do across the board with none of them having public corporate due diligence policies, let alone policies restricting fossil fuel financing.

Not surprisingly, given the concentration of tar sands oil in Alberta, five of the top six tar sands bankers between 2016 and 2018 are Canadian, with **RBC** and **TD** by far the two worst. The only non-Canadian in this top six is — no surprise — **JPMorgan Chase**, in third place over the past three years.

Overall tar sands financing from the 33 banks we analyzed fell sharply in 2018. This was to be expected given that the previous year saw a massive influx of finance to enable Canadian pure-play tar sands companies to buy up the Albertan assets of some of the global majors such as Shell and ConocoPhillips. Most notably, **Barclays** financing fell by 94 percent and **HSBC**'s by 87 percent. **BNP Paribas**, **BPCE/Natixis**, and **ING** have the strongest tar sands policies. **Natixis**, **RBS**, and **HSBC** all came out with strengthened tar sands restrictions over the past year.

Commendably, neither **RBS**, **ING**, **BBVA**, nor **UniCredit** led transactions in 2018 to any of the top tar sands companies covered by our analysis.[6]

On fracking finance, **Wells Fargo** comes out an unrespectable first. **Wells Fargo**, **JPMorgan Chase**, and **Bank of America** dominate the sector; together they account for over a third of the total. Fracking finance from banks has climbed rapidly over the past three years. **BNP Paribas** stands out as the only bank whose fracking policy earned a grade in the B range. Alarmingly, none of the rest of the group of 33 banks earned higher than a D+ — meaning that they only have committed to carrying out enhanced due diligence on fracking-related transactions, a very low bar to cross given the clear environmental, climate, and public health risks of fracking.

Last year, these big banks increased their financing for the top companies behind liquefied natural gas (LNG) import and export terminals worldwide. Often touted as a climate solution, new LNG terminals lock in an expansion of fossil fuel infrastructure that our climate can't afford — especially for a fuel that can be even worse for the climate than coal.[7] **JPMorgan Chase**, **Société Générale**, and **SMBC Group** are the worst funders of LNG over the past three years. **BNP Paribas** is notable for its sharp drop in financing for LNG over the past three years — and with its C+ policy grade, it is the only bank in the group to surpass a D-level grade for LNG.

Banks Must Rapidly Transition From Dirty to Clean Energy

This report does not assess bank financing of clean energy. While we recognize the huge importance of ramping up finance for clean technologies and appreciate that many banks have set targets for funding these sectors, the climate crisis demands not just that banks seize the many opportunities for profit in the clean energy revolution, but also that they be prepared to fundamentally redraw their business models away from financing dirty energy. These banks' clean financing is in any case swamped by the volumes they funnel into fossil fuels.[8]

While we strongly support efforts to reduce *demand* for fossil fuels, restricting *supply* also has a vital role to play.[9] Reckless expansion of fossil fuels threatens to further lock in our fossil fuel dependence, and lowers fossil fuel prices.[10] The cheaper fossil fuels are, the harder it will be to ensure their rapid replacement by clean alternatives. Moreover, a just transition for the workers and communities that are currently dependent on fossil fuel extraction is far more likely under a managed decline of mining and drilling, rather than allowing these industries to face sudden closures due to policy changes, market failure, or climate catastrophe.

The Paris Agreement calls for finance flows to be "consistent with a pathway toward low greenhouse gas emissions."[11] This 2019 fossil fuel finance report card shows that the big global private banks are clearly failing miserably at this goal — despite the fact that many of these banks claim to support the Paris Agreement. Jamie Dimon, the CEO of **JPMorgan Chase**, is perhaps the most hypocritical in this regard, as he has declared his support for the Paris Agreement and his opposition to President Trump's attempt to withdraw from the accord, while at the same time presiding over a bank that is financing climate change more than any other in the world, and which has shown no indications of having any plans to change course.

PHOTO: JVRUBLEVSKAYA / SHUTTERSTOCK

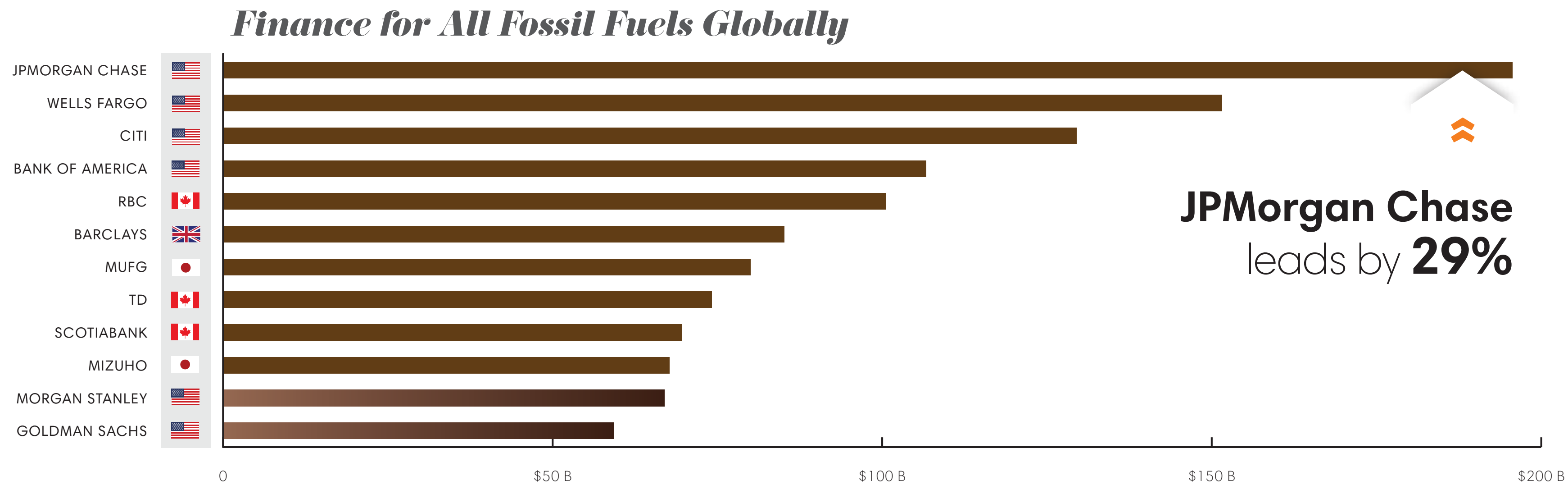
Banking on Fossil Fuels - League Table

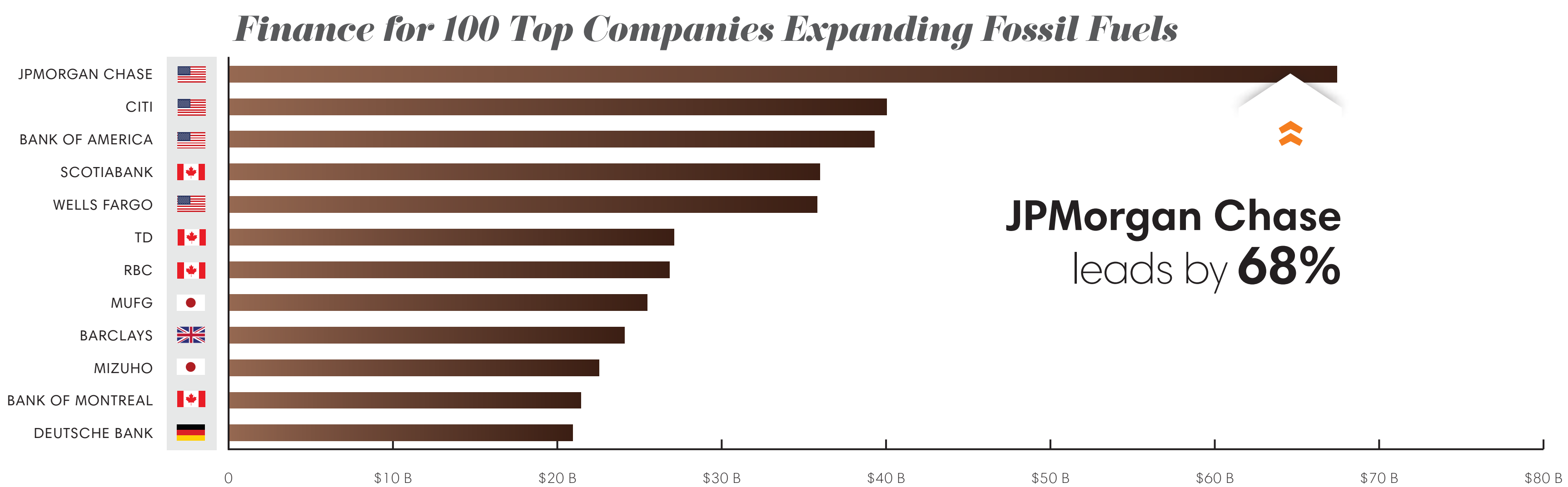
Bank financing for over 1,800 companies active across the fossil fuel life cycle

RANK	BANK	2016	2017	2018	TOTAL	RANK	BANK	2016	2017	2018	TOTAL
1	JPMORGAN CHASE	$62.714 B	$69.046 B	$63.903 B	$195.663 B	18	BNP PARIBAS	$17.243 B	$17.234 B	$16.497 B	$50.974 B
2	WELLS FARGO	$36.041 B	$54.207 B	$61.351 B	$151.599 B	19	ICBC	$19.486 B	$14.021 B	$14.501 B	$48.007 B
3	CITI	$41.560 B	$44.674 B	$43.259 B	$129.493 B	20	CHINA CONSTRUCTION BANK	$17.111 B	$11.724 B	$10.697 B	$39.532 B
4	BANK OF AMERICA	$36.062 B	$36.879 B	$33.745 B	$106.687 B	21	SMBC GROUP	$10.548 B	$11.617 B	$15.934 B	$38.098 B
5	RBC	$28.846 B	$36.810 B	$34.881 B	$100.537 B	22	CIBC	$11.933 B	$13.137 B	$12.302 B	$37.372 B
6	BARCLAYS	$30.543 B	$29.897 B	$24.740 B	$85.179 B	23	SOCIÉTÉ GÉNÉRALE	$12.343 B	$10.708 B	$13.419 B	$36.469 B
7	MUFG	$23.723 B	$26.103 B	$30.213 B	$80.039 B	24	CRÉDIT AGRICOLE	$8.677 B	$10.867 B	$12.618 B	$32.162 B
8	TD	$20.516 B	$29.227 B	$24.408 B	$74.151 B	25	UBS	$7.659 B	$8.147 B	$10.038 B	$25.844 B
9	SCOTIABANK	$18.302 B	$24.170 B	$27.098 B	$69.571 B	26	ING	$9.265 B	$7.437 B	$8.852 B	$25.555 B
10	MIZUHO	$21.523 B	$18.557 B	$27.630 B	$67.710 B	27	AGRICULTURAL BANK OF CHINA	$11.604 B	$5.850 B	$7.619 B	$25.073 B
11	MORGAN STANLEY	$23.736 B	$23.714 B	$19.481 B	$66.931 B	28	BPCE/NATIXIS	$4.513 B	$6.039 B	$10.278 B	$20.830 B
12	GOLDMAN SACHS	$22.509 B	$19.412 B	$17.337 B	$59.257 B	29	UNICREDIT	$6.490 B	$6.629 B	$3.942 B	$17.061 B
13	HSBC	$17.461 B	$21.556 B	$18.791 B	$57.808 B	30	STANDARD CHARTERED	$2.272 B	$4.791 B	$8.180 B	$15.244 B
14	CREDIT SUISSE	$18.800 B	$21.609 B	$17.010 B	$57.419 B	31	SANTANDER	$5.761 B	$4.636 B	$4.576 B	$14.973 B
15	BANK OF MONTREAL	$16.599 B	$20.309 B	$19.669 B	$56.577 B	32	BBVA	$4.422 B	$3.178 B	$4.480 B	$12.080 B
16	BANK OF CHINA	$19.253 B	$14.207 B	$22.043 B	$55.503 B	33	RBS	$3.706 B	$662 M	-	$4.368 B
17	DEUTSCHE BANK	$20.660 B	$18.649 B	$14.631 B	$53.939 B	GRAND TOTAL		$611.882 B	$645.702 B	$654.123 B	$1.911 T

Key Findings

Dirty Dozen: Worst Banks Since the Paris Agreement (2016-2018)

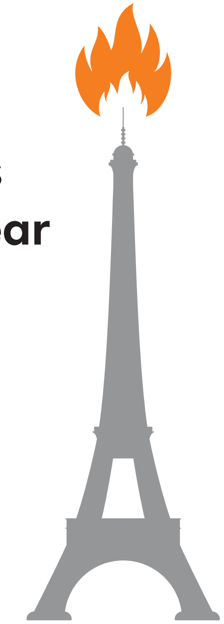




By the Numbers

Bank financing
for fossil fuels has
increased each year
since Paris.

2018: $654 B
2017: $646 B
2016: $612 B



33 global banks financed fossil fuels
with **$1.9 trillion** since the **Paris Agreement**.
(more than all the currency in circulation in the U.S.!)[12]

$600 billion of this went to
100 companies **aggressively**
expanding fossil fuels.

Out of these 33 global banks...

21 have restricted some **coal financing**

10 have restricted some **tar sands oil** financing (all are European banks)

1 has restricted some **fracking** and **LNG** financing (BNP Paribas)

9 have issued **improved policies** on coal finance since last year's report card

JPMorgan Chase Leads the Way *(to Climate Chaos)*

In the three years since the **Paris Agreement**, JPMorgan Chase was the:

#1

Banker of Fossil Fuels (BY 29%)

$196 B TOTAL

#1 in **2016, 2017**, and **2018**

#1

Banker of 100 Top Companies Expanding Fossil Fuels (BY 68%)

#1 in **2016, 2017**, and **2018**

#1 U.S. Banker of Tar Sands Oil

#1 Banker of Arctic Oil & Gas

#1 Banker of Ultra-Deepwater Oil & Gas

#2 Banker of Fracking
(JUST BEHIND WELLS FARGO)

#1 Banker of LNG

#1 U.S. Banker of Coal Mining

JPMorgan Chase has **ZERO** policies restricting finance to:

- **Tar Sands Oil**
- **Arctic Oil & Gas**
- **Ultra-Deepwater Oil & Gas**
- **Fracking**
- **Liquefied Natural Gas (LNG)**

CHASE

Expansion and **Phase-Out policy grade:**

D-

JPMorgan Chase is the only bank leading financing for all four key **tar sands expansion** companies (see page 31)

Hall of Shame - Worst Banks Since the Paris Agreement *

Worst in the World

JPMorgan Chase & Co.

» The world's biggest banker of fossil fuels, by a wide margin (see page 10)

Wells Fargo

» 2nd highest fossil fuel financing globally ($152 B), with a dramatic increase each year
» $36 B to fossil fuel expansion
» World's top banker of fracking ($30 B)

Expansion and **Phase-Out policy grade:**

D-

Worst in Europe

Barclays

» Leads Europe in banking fossil fuels ($85 B) and fossil fuel expansion ($24 B)
» Top European banker of fracking and coal power

HSBC

» $58 B to fossil fuels
» $19 B to fossil fuel expansion

Worst in Canada

RBC Royal Bank

» Leads Canada in banking fossil fuels ($101 B)
» World's top banker of tar sands ($14 B)

Expansion and **Phase-Out policy grade:**

F

Worst in Japan

MUFG

» Leads Japan in banking fossil fuels ($80 B) and fossil fuel expansion ($25 B)

Expansion and **Phase-Out policy grade:**

F

Worst in China

中国银行 Bank of China

» $17 B to fossil fuel expansion
» World's top banker of coal power ($16 B)

All policy grades:

F

* Ranked by highest total financing for all fossil fuels between 2016 and 2018. Other figures and grades are given for context.

New Policy Improvements

These five banks made notable changes to their policies in the last year, moving to restrict financing for some projects (C range), or even some companies (B range).

F D- D D+ C- C C+ B- B B+ A- A

Royal Bank of Scotland	Tar Sands Oil	D	C-
	Coal Mining	C-	B
	Coal Power	C-	C+
Santander	Coal Mining	D	B-
	Coal Power	C-	C+
HSBC	Tar Sands Oil	D+	C+
	Arctic Oil & Gas	D-	C-
Standard Chartered	Tar Sands Oil	D-	C+
	Arctic Oil & Gas	D	C+
	Coal Power	C-	C+
SMBC	Coal Power	D-	C-

Policy Grades Summary

BANK	EXPANSION + PHASE-OUT	TAR SANDS	ARCTIC	ULTRA-DEEP	FRACKING	LNG	COAL MINING	COAL POWER
UNITED STATES								
BANK OF AMERICA	**D-**	D	D	D-	D-	D-	C+	C-
CITI	**D-**	D+	D+	D+	D+	D	C+	C-
GOLDMAN SACHS	**D-**	D+	D+	D+	D+	D	C-	C-
JPMORGAN CHASE	**D-**	D+	D+	D	D+	D-	C+	C-
MORGAN STANLEY	**D-**	D+	D+	D+	D+	D+	C+	C-
WELLS FARGO	**D-**	D+	D+	D+	D+	D	C+	D
CHINA								
AGRICULTURAL BANK OF CHINA	**F**	F	F	F	F	F	F	F
BANK OF CHINA	**F**	F	F	F	F	F	F	F
CHINA CONSTRUCTION BANK	**F**	F	F	F	F	F	F	F
ICBC	**F**	F	F	F	F	F	F	F
JAPAN								
MIZUHO	**F**	D-	D-	D-	D-	D-	D-	D+
MUFG	**F**	D-	D-	D-	D-	D-	D-	D+
SMBC GROUP	**D-**	D-	D-	D-	D-	D-	D-	C-

BANK	EXPANSION + PHASE-OUT	TAR SANDS	ARCTIC	ULTRA-DEEP	FRACKING	LNG	COAL MINING	COAL POWER
EUROPE								
BARCLAYS	**D+**	D+	D+	D	D	D	C+	C+
BBVA	**D+**	C+	C+	D	D	D	B	C+
BNP PARIBAS	**C-**	B	B-	D-	B	C+	B-	B-
BPCE/NATIXIS	**C-**	B-	C-	D	D+	D	B-	B-
CRÉDIT AGRICOLE	**C-**	C+	C-	D	D+	D	B-	B-
CREDIT SUISSE	**D-**	D+	D	D	D	D	C	C-
DEUTSCHE BANK	**D+**	D	D	D	D+	D	C+	C+
HSBC	**D+**	C+	C-	D	D+	D	C	C-
ING	**C-**	B-	C+	D	D+	D	B-	B-
RBS	**C-**	C-	C-	D	D+	D	B	C+
SANTANDER	**C-**	C-	D	D	D	D	B-	C+
SOCIÉTÉ GÉNÉRALE	**C-**	C+	C+	D	D+	D+	B-	B-
STANDARD CHARTERED	**C-**	C+	C+	D	D	D	C-	C+
UBS	**D-**	D+	D+	D-	D+	D-	C	C-
UNICREDIT	**F**	D-	D-	D-	D-	D-	D	D+
CANADA								
BANK OF MONTREAL	**F**	D-	D-	D-	D-	D-	D-	D-
CIBC	**F**	D-	D-	D-	D-	D-	D-	D-
RBC	**F**	D+	D	D	D	D	D	D
SCOTIABANK	**F**	D-	D-	D-	D-	D-	D-	D-
TD	**D-**	D+	D	D	D	D	D+	D

Methodology

For the first time in the history of this series, this 10th annual fossil fuel finance report card analyzes bank financing for and policies regarding the fossil fuel sector as a whole. Also for the first time, this report analyzes bank financing for top expanders of the fossil fuel industry. Bank support for certain spotlight fossil fuel subsectors are highlighted as well: tar sands oil, Arctic oil and gas, ultra-deepwater oil and gas, fracked oil and gas, LNG, coal mining, and coal-fired power. These fossil fuels are highlighted due to their high environmental, social, and climate impacts and their heightened risk of becoming stranded assets; however, they are far from being the only problematic sectors funded by big banks, who continue to support large hydropower projects, conflict palm oil, private prisons and immigration detention centers, and more.

Banking Industry Scope

This report card analyzes fossil fuel financing and policies from 33 large, private-sector commercial and investment banks based in Canada, China, Europe, Japan, and the United States.[13] These banks are included based on the size of their commercial and investment banking business, their inclusion in previous editions of the report card, the extent of their financial relationships with fossil fuel companies, and the campaigning priorities of the authoring organizations. Additional policy grades from banks in these regions as well as from Australia and Singapore are highlighted in some sections as further examples of progress — or lack thereof.

Fossil Fuel Industry Scope

All Fossil Fuels:

Scope: Approximately 1,800 companies involved in the extraction, transportation, transmission, combustion, or storage of any fossil fuels or fossil fuel electricity, globally, according to the Bloomberg Industry Classification Standard, and the companies on the Global Coal Exit List

Source: Bloomberg Finance L.P. and urgewald

Fossil Fuel Expansion:

Scope:

Oil and Gas: Top 60 companies by reserves expected to be exploited by 2050 from projects reaching final investment decision from 2016–2030[14] (hereafter written as "expansion reserves"), and 15 companies behind key pipelines and terminals that would expand extraction upstream

Coal: Top 10 companies by coal production that have mining expansion plans, and 15 key companies proposing new coal power plants

Source: Rystad Energy AS provided by Oil Change International, company reporting, and urgewald e.V.[15]

Tar Sands Oil:

Scope: Top 30 companies by tar sands reserves under production plus expansion reserves, and four key companies carrying tar sands oil via pipeline out of Alberta

Source: Rystad Energy AS provided by Oil Change International and Oil Sands Magazine[16]

Arctic Oil and Gas:

Scope: Top 30 companies by Arctic oil and gas reserves under production plus expansion reserves

Source: Rystad Energy AS provided by Oil Change International

Ultra-Deepwater Oil and Gas:

Scope: Top 30 companies by ultra-deepwater oil and gas reserves under production plus expansion reserves

Source: Rystad Energy AS provided by Oil Change International

Fracked Oil and Gas:

Scope: Top 30 companies by shale oil and gas reserves under production plus undeveloped shale oil and gas reserves projected to be produced between 2018 and 2050, and 10 key fracked oil and gas pipeline companies

Source: Rystad Energy AS via Oil Change International and company reporting

Calculating Finance Flows

For the companies included in this analysis, we assessed each bank's involvement in corporate lending and underwriting transactions — including project finance where data were available — from 2016 through 2018. All amounts are expressed in U.S. dollars unless otherwise indicated. Transaction data were sourced from Bloomberg Finance L.P., where the value of a transaction is split between leading banks.[19] This was supplemented by project finance deals from IJGlobal for the coal power and LNG subsectors researched by Profundo, where all involved banks received credit for their participation in a deal.

Each transaction was weighted based on the proportion of the borrower or issuer's operations devoted to the subsector in question. For the league tables measuring financing for all fossil fuels, and the top fossil fuel expanders, transactions were adjusted based on each company's fossil fuel-based assets or revenue.[20] For the upstream oil and gas subsectors, transactions were adjusted based on a company's reserves in the particular subsector out of its total oil and gas reserves in a given year.[21] For LNG and coal mining, transactions were adjusted based on a company's total LNG or coal assets as a percentage of the company's total assets. For coal power, transactions were adjusted based on a company's share of coal in its power production. For pipeline companies, transactions were adjusted based on an estimation of the company's assets or revenue in that subsector.

Liquefied Natural Gas (LNG):
Scope: Top 30 companies by attributable capacity in current or planned LNG import or export terminals worldwide
Source: Bloomberg New Energy Finance[17]

Coal Mining:
Scope: Top 27 companies by annual coal production plus three significant coal mining companies with large expansion plans[18]
Source: urgewald

Coal Power:
Scope: Top 30 coal power companies by installed plus planned coal power capacity
Source: urgewald

For full lists of the companies included in the analysis, see the appendix to this report, beginning on page 90.

For a full explanation of how adjusters were calculated, visit RAN.org/bankingonclimatechange2019.

Policy Letter Grades

We scored banks based on their publicly available policies on fossil fuel financing. As part of the rating process, banks were issued draft grades and given an opportunity to provide feedback.[22]

For explanations of how each particular bank was graded, visit RAN.org/bankingonclimatechange2019.

PHOTO: TIGERGALLERY / SHUTTERSTOCK

Expansion

PHOTO: GREENPEACE / JOHN WOODS

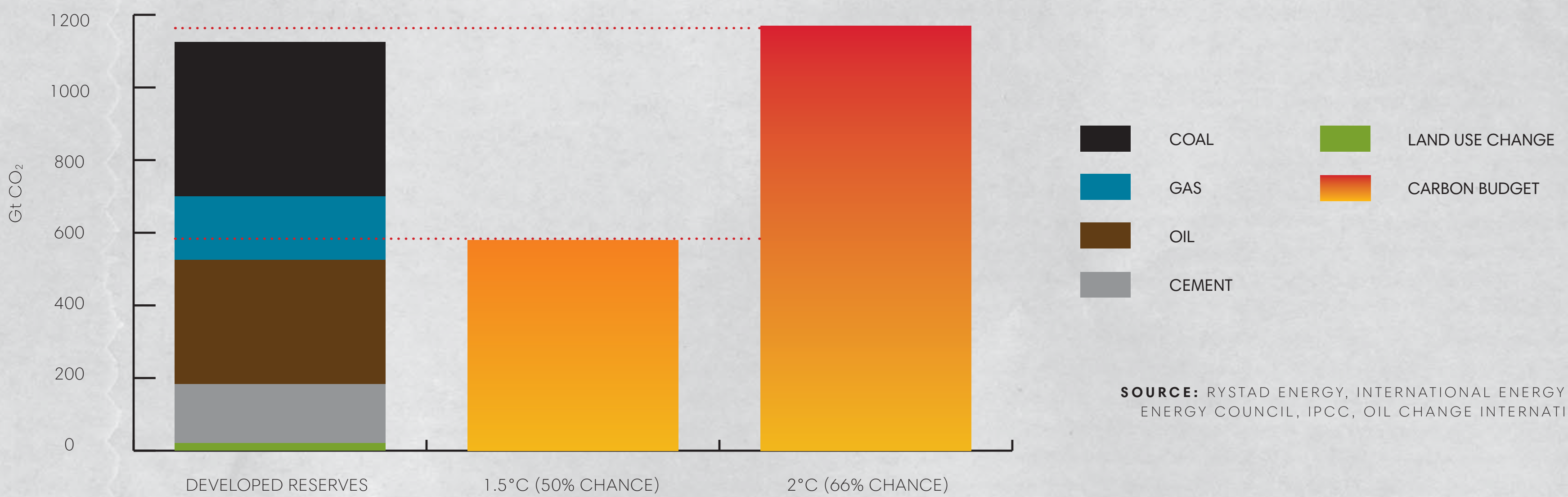
Financing Expansion Into New Fossil Fuel Sources Fails the Climate Test

This year's report card presents a new league table that measures bank financing for fossil fuel expansion. The rationale is simple. Existing fossil fuel extraction projects already contain enough carbon to push the world beyond agreed climate limits.[23] Developing untapped fossil fuel sources, whether by drilling new oil or gas fields, digging new coal mines, or building new infrastructure like pipelines to bring fossil fuels to market, pushes the world further beyond climate limits and continues the human rights abuses frequently entwined with these industries. Indeed, to meet set climate goals, some portion of reserves in existing projects will have to be left in the ground.

The analysis is based on carbon budgets. Climate science demonstrates that cumulative carbon dioxide (CO_2) emissions over time are the primary determinant of how much global warming will occur.[24] Scientists have estimated the total cumulative CO_2 emissions that can occur in order for our planet to warm within a given temperature limit. These cumulative totals — which make up a "carbon budget" — indicate a set limit to how much fossil fuel can be extracted and burned without irreversibly jeopardizing global climate goals.

The figure below compares the cumulative CO_2 emissions potential of the oil, gas, and coal in existing and under-construction extraction projects around the world to carbon budgets aligned with the goals of the Paris Agreement. These "developed reserves" represent the oil, gas, and coal that fossil fuel companies have already invested in extracting: the necessary wells have been (or are being) drilled, the pits dug, and the related infrastructure built. The results show that these projects alone would push the world far beyond 1.5°C of warming and would exhaust a 2°C carbon budget as well.

Carbon Dioxide Emissions From Developed Fossil Fuel Reserves,
Compared to Carbon Budgets Within Range of the Paris Goals



SOURCE: RYSTAD ENERGY, INTERNATIONAL ENERGY AGENCY, WORLD ENERGY COUNCIL, IPCC, OIL CHANGE INTERNATIONAL ANALYSIS[25]

Despite the clear need to stop digging, fossil fuel companies continue to expand the pool of fossil fuels to which they have access and, therefore, their investment in future climate pollution. In doing so, they risk driving the climate further into crisis and/or, when emissions are eventually limited, creating economic chaos from a sudden, unmanaged shut-down of production assets.

In the following league table, we rank the banks behind the companies that are investing the most in expanding fossil fuel production since the Paris Agreement.[26] The full list of these 100 companies can be found on page 90. It includes upstream extraction companies projected to produce the most oil and gas from currently undeveloped sources by 2050, pipeline companies connecting some of the world's most prolific new oil and gas fields to markets, and key companies planning new projects to dig up and burn more coal.

Basic economics clearly indicate that the consumption of any product is shaped by both demand and supply. However, the primary focus of climate change mitigation has historically been on the demand side — at the tailpipe and chimney stack — rather than at the source. Meanwhile, emissions continue to rise. It is clearer than ever that maintaining a livable climate will require constraining fossil fuel supply and demand together.[27] This approach requires nothing less than managing the decline of fossil fuel production. The first place to start is ending exploration and development of new fossil fuel reserves.

The companies in the expansion list, together with the banks financing them, need to change course immediately. Addressing the climate crisis will require heeding an old adage: when you're in a hole, stop digging.

PHOTO: MARK AGNOR / SHUTTERSTOCK

What the IPCC's 2018 special report on 1.5°C means for banks and fossil fuels

Regarding banks and fossil fuels, there are **three key takeaways** from last year's landmark report from the IPCC on global warming of 1.5°C:[28]

1. **1.5°C, not 2°C.** While the human impacts of 1.5°C of warming are significant, the impacts of 2°C are vastly worse. Banks must explicitly align their policies and practices with the goal of limiting global warming to 1.5°C. When banks use scenario analysis to look at their climate risk, including for reporting according to the recommendations from the Task Force on Climate-Related Financial Disclosures (see page 66), they should use 1.5°C scenarios.

2. **Financed emissions: Align with the most prudential 1.5°C pathway.** A key finding of the IPCC special report is: "In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO_2 emissions decline by about 45% from 2010 levels by 2030 ... reaching net zero around 2050."[29] To do their part, global banks' financed emissions trajectories should be compatible with this pathway.

3. **No finance for fossil fuel expansion.** As described above, research incorporating the findings of the IPCC special report confirms that potential emissions from currently operating coal, oil, and gas reserves take us beyond 2°C let alone 1.5°C.[30] Banks should not finance the expansion of fossil fuel extraction or infrastructure, whether via project finance (direct financing for a fossil fuel asset) or general corporate support (financing provided to a company overall), for companies expanding fossil fuels.

As new research clarifies the specific implications of these overall guidelines — for example, the need for a full phase-out of coal power in Organisation for Economic Co-operation and Development (OECD) countries by 2030[31] — banks should align their policies and practices with these as well.

Banking on Fossil Fuel Expansion - League Table

Bank financing for 100 key oil, gas, and coal companies expanding fossil fuels

RANK	BANK	2016	2017	2018	TOTAL
1	JPMORGAN CHASE	$30.883 B	$18.463 B	$18.094 B	$67.440 B
2	CITI	$17.404 B	$10.803 B	$11.834 B	$40.041 B
3	BANK OF AMERICA	$16.756 B	$12.524 B	$10.023 B	$39.302 B
4	SCOTIABANK	$9.371 B	$12.226 B	$14.374 B	$35.970 B
5	WELLS FARGO	$12.047 B	$11.257 B	$12.505 B	$35.809 B
6	TD	$7.533 B	$12.607 B	$6.957 B	$27.097 B
7	RBC	$9.689 B	$9.532 B	$7.592 B	$26.814 B
8	MUFG	$7.765 B	$10.154 B	$7.560 B	$25.480 B
9	BARCLAYS	$13.152 B	$5.703 B	$5.229 B	$24.085 B
10	MIZUHO	$9.727 B	$4.981 B	$7.824 B	$22.531 B
11	BANK OF MONTREAL	$8.340 B	$6.457 B	$6.650 B	$21.448 B
12	DEUTSCHE BANK	$8.842 B	$6.574 B	$5.513 B	$20.929 B
13	MORGAN STANLEY	$10.237 B	$6.925 B	$3.103 B	$20.265 B
14	HSBC	$5.663 B	$8.986 B	$4.618 B	$19.267 B
15	BANK OF CHINA	$8.217 B	$2.856 B	$6.151 B	$17.224 B
16	GOLDMAN SACHS	$8.937 B	$4.483 B	$3.359 B	$16.779 B
17	ICBC	$9.954 B	$2.687 B	$3.925 B	$16.565 B
18	CREDIT SUISSE	$6.802 B	$4.757 B	$3.433 B	$14.991 B
19	SMBC GROUP	$5.113 B	$4.176 B	$5.523 B	$14.812 B
20	BNP PARIBAS	$6.321 B	$3.606 B	$3.317 B	$13.243 B
21	CHINA CONSTRUCTION BANK	$5.392 B	$3.387 B	$3.625 B	$12.403 B
22	SOCIÉTÉ GÉNÉRALE	$4.565 B	$2.334 B	$4.904 B	$11.803 B
23	CRÉDIT AGRICOLE	$3.347 B	$3.608 B	$3.147 B	$10.102 B
24	AGRICULTURAL BANK OF CHINA	$4.509 B	$1.271 B	$1.965 B	$7.745 B
25	SANTANDER	$3.544 B	$2.226 B	$1.929 B	$7.699 B
26	CIBC	$2.072 B	$3.669 B	$1.877 B	$7.617 B
27	UBS	$1.663 B	$1.195 B	$2.317 B	$5.175 B
28	BBVA	$1.858 B	$1.461 B	$1.287 B	$4.606 B
29	BPCE/NATIXIS	$958 M	$846 M	$1.799 B	$3.603 B
30	UNICREDIT	$1.651 B	$745 M	$798 M	$3.194 B
31	STANDARD CHARTERED	$454 M	$1.403 B	$1.144 B	$3.002 B
32	ING	$962 M	$334 M	$624 M	$1.920 B
33	RBS	$1.031 B	$550 M	-	$1.581 B
	GRAND TOTAL	$244.758 B	$182.783 B	$173.001 B	$600.543 B

PHOTO: DMITRIY KUZMICHEV / SHUTTERSTOCK

Expansion and Phase-Out – Policy Grades

GRADE		BANK
A	**FOSSIL FUEL EXCLUSION** Prohibits all financing for all fossil fuel projects and companies.	
A-	**EXCLUSION OF ALL FOSSIL FUEL PROJECTS AND PHASE-OUT OF ALL FOSSIL FUEL FINANCING** Prohibits all financing for all fossil fuel projects and all companies expanding fossil fuels, and commits to phase out the remainder of fossil fuel financing on a timeline compliant with limiting climate change to 1.5°C.	
B+	**EXCLUSION OF FOSSIL FUEL PROJECTS AND ALL EXPANSION COMPANIES** Prohibits all financing for all fossil fuel projects and all companies expanding fossil fuels.	
B	**EXCLUSION OF FOSSIL FUEL PROJECTS AND SOME EXPANSION COMPANIES** Prohibits all financing for all fossil fuel projects, as well as for all companies expanding coal and some companies expanding oil and gas.	
B-	**EXCLUSION OF FOSSIL FUEL PROJECTS AND SOME COAL EXPANSION COMPANIES** Prohibits all financing for all fossil fuel projects, as well as for some companies expanding coal.	
C+	**EXCLUSION OF FOSSIL FUEL PROJECTS, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all fossil fuel projects, or prohibits all financing for all coal projects, some oil and gas projects, and some companies expanding coal.	**EUROPE:** ABN AMRO

GRADE		BANK
C-	**FULL COAL PROJECT EXCLUSION PLUS ADDITIONAL RESTRICTIONS** Prohibits all financing for all coal projects, and prohibits financing for either some oil and gas projects or some companies expanding coal.	**EUROPE:** BNP Paribas, BPCE/Natixis, Commerzbank, Crédit Agricole, ING, KBC, Rabobank, RBS, Santander, Société Générale, Standard Chartered **UNITED STATES:** US Bank
D+	**FULL COAL PROJECT EXCLUSION** Prohibits all financing for all coal projects, or prohibits financing for some coal projects and some oil and gas projects.	**AUSTRALIA:** NAB **EUROPE:** Barclays, BBVA, Deutsche Bank, HSBC
D-	**PARTIAL COAL PROJECT EXCLUSION** Prohibits some financing for coal projects.	**AUSTRALIA:** ANZ, Westpac **CANADA:** TD **EUROPE:** Credit Suisse, UBS **JAPAN:** SMBC Group **SINGAPORE:** DBS Bank, OCBC Bank, UOB **UNITED STATES:** Bank of America, Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, PNC, Wells Fargo
F	**NO POLICY** No exclusions of fossil fuel expansion or commitments to phase out fossil fuel financing.	**AUSTRALIA:** Commonwealth Bank **CANADA:** Bank of Montreal, CIBC, RBC, Scotiabank **CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC **EUROPE:** UniCredit **JAPAN:** Mizuho, MUFG

SPOTLIGHT

Fossil Fuel Subsectors

Tar Sands Oil | ***Arctic Oil & Gas*** | ***Ultra-Deepwater Oil & Gas*** | ***Fracked Oil & Gas*** | ***Liquefied Natural Gas*** | ***Coal Mining*** | ***Coal Power***

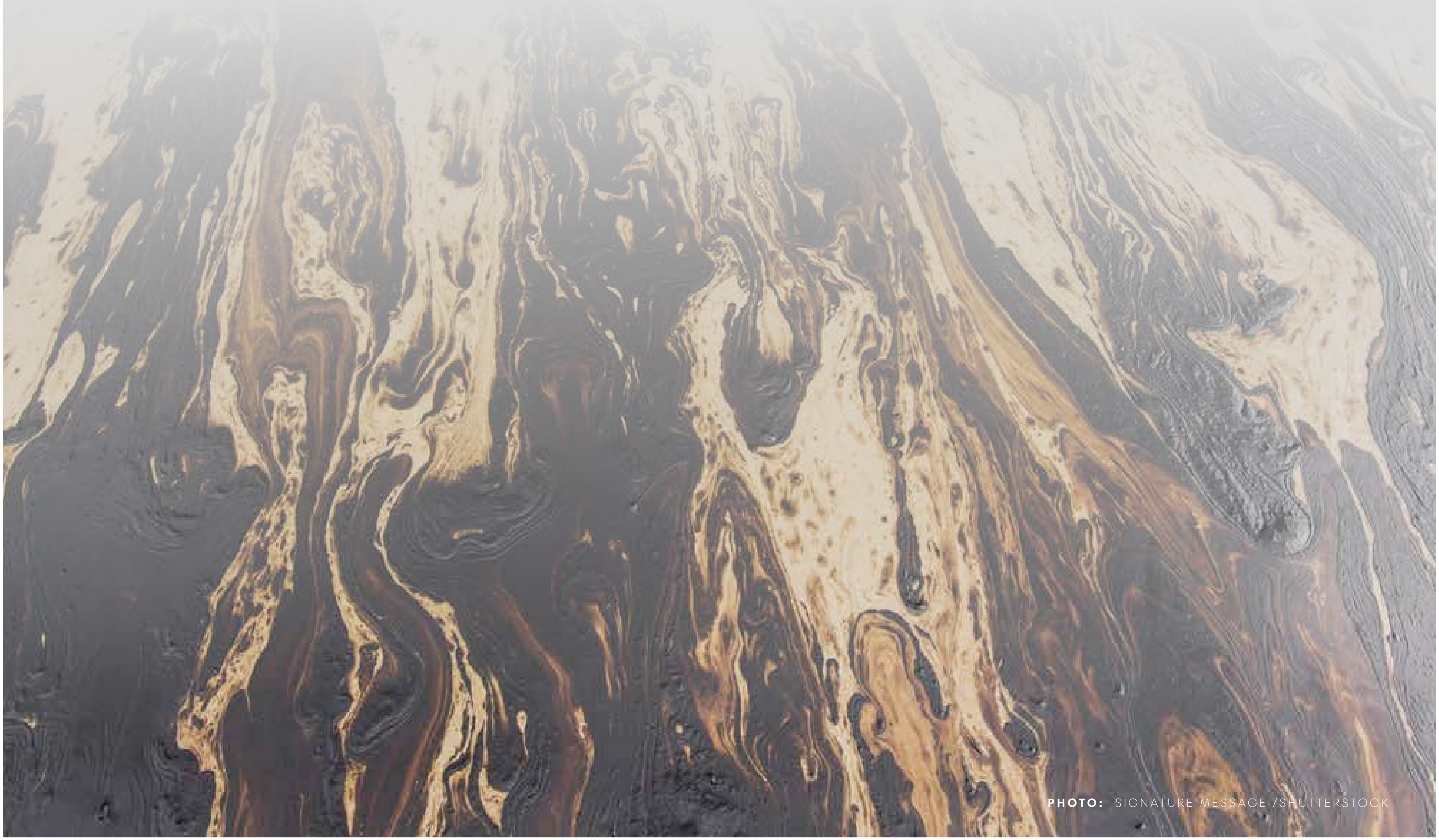


PHOTO: SIGNATURE MESSAGE /SHUTTERSTOCK

Tar Sands Oil

PHOTO: GREENPEACE / COLIN O'CONNOR

The tar sands (also known as oil sands) of Alberta, Canada are the world's third-largest reserves of recoverable crude oil, whose resource-intensive extraction and transportation causes harm to the climate, ecosystems, and local communities including Indigenous peoples.[32]

These banks are the biggest financiers of 30 top tar sands oil producers, plus four key tar sands pipeline companies. In particular, these banks and their peers support companies working to expand tar sands infrastructure, such as Enbridge and Teck Resources.

Worst Banks By Total Tar Sands Financing (2016–2018)

BANK		TAR SANDS FINANCING	TAR SANDS POLICY GRADE
RBC		$13.766 B	D+
TD		$13.721 B	D+
JPMORGAN CHASE		$7.779 B	D+

Case Study: Fighting Tar Sands Extraction

Pipeline Victories in 2018

In 2018, Indigenous-led opposition to each of the three major proposed tar sands oil pipelines in North America continued to spotlight the outcomes of failing to secure free, prior and informed consent, alongside the pipelines' threats to the climate and broader environment. The Trans Mountain pipeline saw the most spectacular setbacks, with Canada's Federal Court of Appeal quashing the project's approvals and permits, ruling that both the federal government's consultation with First Nations communities and its environmental assessments were inadequate.[33] As former sponsor Kinder Morgan exited the project, Ottawa finalized its extraordinary purchase of the pipeline for C$4.5 billion.[34]

In August, a federal judge ordered the U.S. State Department to conduct a new environmental review of the route for TransCanada's Keystone XL (KXL) pipeline, in response to a lawsuit by the Indigenous Environmental Network and allies. The same judge later blocked KXL's construction pending that reassessment — even as TransCanada was shipping pipe to the route in Montana.[35]

2019 will be another year that Enbridge's Line 3 pipeline isn't complete — it was originally projected to be in service in 2017.[36] The project received its certificate of need and route approval from the Minnesota Public Utilities Commission in June 2018.[37] However, the resistance in Minnesota is fierce, resulting in the political players in the administration of Minnesota taking legal action against the state: the state's Department of Commerce has appealed the decision by the Public Utility Commission to approve Line 3.[38] In other words, the state is essentially suing itself.

In March of 2019, Enbridge announced it will delay its in-service projection to late 2020, due to an extended review period of water crossing permits by the state of Minnesota.[39] Three tribes along the proposed route remain explicitly opposed, as do a myriad of non-profit organizations, youth climate intervenors, landowners, and concerned citizens who are engaged in filing numerous lawsuits on the adequacy of the environmental impact statement, the route selected, and other matters.[40]

In the absence of project-level finance for either Line 3 or KXL, banks like **JPMorgan Chase** and **Bank of Montreal** that back Enbridge and/or TransCanada — see the following chart for a fuller list — risk contributing to clear abuse of free, prior and informed consent if these projects proceed. And Canada's purchase of Trans Mountain does not absolve banks that provided the initial project finance of the Indigenous rights abuses and climate destruction they endorsed.[41]

Extraction: A Mixed Picture

2018 showed that stopping the expansion of tar sands infrastructure stops the expansion of extraction. The exodus from the tar sands of the supermajor oil and gas companies continued, with Total selling its Joslyn extraction project to Canadian Natural Resources for C$225 million.[42] The Alberta government moved to create new rail and refining capacity to move tar sands oil out of Alberta and ease the strain of the pipeline bottleneck.[43] In December, Alberta Premier Rachel Notley announced mandatory temporary tar sands production cuts, citing insufficient transportation capacity.[44] Significant resistance to new infrastructure projects, particularly by tribal nations, has resulted in the provincial government reducing its tar sands production.[45] These economic lessons about lack of consent by tribal nations should not be taken lightly.

Alarmingly, two extraction companies — backed by banks like **JPMorgan Chase** and **Bank of America** — bucked the trend by doubling down. Imperial Oil made a final investment decision to move forward with its Aspen project, the first new tar sands project sanctioned since 2013.[46] In March 2019 it delayed this project due to "the uncertainty in the current business environment," given pipeline constraints and production caps.[47] Meanwhile, Teck Resources continued to push its huge Frontier mine: a project that is widely seen as economically unviable.[48] At C$20.6 billion it would be the most expensive mine in the sector's history, and with a projected lifespan of 41 years it would last well beyond when world emissions must reach net zero.[49]

Looking Ahead

Another year of pipeline delays and setbacks will further lock in constraints on tar sands extraction. Industry was counting on Line 3, in particular, to be in service by the end of 2019, when Alberta's production cuts were scheduled to be lifted. Enbridge's recent in-service date postponement was a major financial blow to the tar sands, and yet another example of the outcomes of failing to secure free, prior, and informed consent. If Line 3 moves forward, any bank backing Enbridge is supporting abuse of Indigenous rights, threatening the Great Lakes and numerous wetlands, rivers, and watersheds along the pipeline, while putting 1.5°C further out of reach as an achievable goal.[50] Global banks should recognize that risk, and, if Enbridge won't drop Line 3, the banks should drop Enbridge. If banks do not follow human rights laws and climate science, the Indigenous-led, grassroots opposition will hold them accountable, as it has in other failed North American infrastructure projects.

Who's Banking Expansion in the **Tar Sands**?

These are the leading bankers since the Paris Agreement was adopted of at least three of the four key companies expanding tar sands production.[51]

	TRANSCANADA	ENBRIDGE	TECK RESOURCES	EXXONMOBIL (MAJORITY OWNER OF IMPERIAL OIL)
JPMORGAN CHASE	X	X	X	X
BANK OF AMERICA		X	X	X
BANK OF MONTREAL	X	X	X	
BARCLAYS		X	X	X
CIBC	X	X	X	
CITI		X	X	X
DEUTSCHE BANK	X	X	X	
RBC	X	X	X	
TD	X	X	X	

Banking on Tar Sands - League Table

Bank financing for 30 top tar sands production companies and four key tar sands pipeline companies

RANK	BANK	2016	2017	2018	TOTAL
1	RBC	$2.421 B	$8.089 B	$3.257 B	$13.766 B
2	TD	$2.569 B	$7.674 B	$3.478 B	$13.721 B
3	JPMORGAN CHASE	$2.284 B	$4.151 B	$1.343 B	$7.779 B
4	BANK OF MONTREAL	$2.742 B	$3.254 B	$1.498 B	$7.494 B
5	CIBC	$2.530 B	$3.618 B	$623 M	$6.771 B
6	SCOTIABANK	$759 M	$2.400 B	$1.107 B	$4.266 B
7	BARCLAYS	$513 M	$1.925 B	$108 M	$2.546 B
8	HSBC	$923 M	$1.401 B	$179 M	$2.503 B
9	CITI	$770 M	$960 M	$370 M	$2.100 B
10	BANK OF AMERICA	$708 M	$1.060 B	$303 M	$2.072 B
11	DEUTSCHE BANK	$526 M	$370 M	$400 M	$1.295 B
12	MUFG	$143 M	$828 M	$205 M	$1.177 B
13	WELLS FARGO	$651 M	$230 M	$177 M	$1.058 B
14	CREDIT SUISSE	$165 M	$524 M	$154 M	$843 M
15	MIZUHO	$238 M	$261 M	$144 M	$643 M
16	BNP PARIBAS	$356 M	$181 M	$50 M	$588 M
17	SMBC GROUP	$116 M	$137 M	$212 M	$465 M

RANK	BANK	2016	2017	2018	TOTAL
18	GOLDMAN SACHS	$208 M	$142 M	$36 M	$386 M
19	MORGAN STANLEY	$320 M	$37 M	$18 M	$375 M
20	SOCIÉTÉ GÉNÉRALE	$169 M	$64 M	$114 M	$348 M
21	CRÉDIT AGRICOLE	$189 M	$59 M	$64 M	$311 M
22	ICBC	$158 M	$16 M	$30 M	$204 M
23	UBS	$72 M	$32 M	$62 M	$166 M
24	BANK OF CHINA	$107 M	$16 M	$31 M	$154 M
25	AGRICULTURAL BANK OF CHINA	$79 M	$7 M	$18 M	$104 M
26	SANTANDER	$22 M	$34 M	$13 M	$68 M
27	BPCE/NATIXIS	$3 M	$19 M	$12 M	$35 M
28	UNICREDIT	$29 M	-	-	$29 M
29	CHINA CONSTRUCTION BANK	$7 M	$7 M	$5 M	$19 M
30	STANDARD CHARTERED	$7 M	$7 M	$5 M	$19 M
31	BBVA	$7 M	$9 M	-	$16 M
32	ING	$3 M	$9 M	-	$12 M
33	RBS	$9 M	-	-	$9 M
	GRAND TOTAL	$19.802 B	$37.524 B	$14.015 B	$71.341 B


TECK RESOURCES' FRONTIER MINE
ALBERTA TAR SANDS
KINDER MORGAN'S TRANS MOUNTAIN
ENBRIDGE'S LINE 3
TRANSCANADA'S KEYSTONE XL
PHOTO: JIRI REZAC / GREENPEACE

Tar Sands Oil – Policy Grades

GRADE		BANK
A	**TAR SANDS EXCLUSION** Prohibits all financing for all tar sands projects and all companies with tar sands operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF TAR SANDS EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all tar sands projects and all companies with tar sands expansion plans, and commits to phase out all financing for companies with tar sands operations, with public reporting on implementation.	
B+	**EXCLUSION OF TAR SANDS EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all tar sands projects, all financing for companies with tar sands expansion plans, and all financing for companies with significant tar sands operations, with public reporting on implementation.	
B	**EXCLUSION OF TAR SANDS EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for all tar sands projects and all financing for companies with either tar sands expansion plans or significant tar sands activity.	**EUROPE:** BNP Paribas, Rabobank
B-	**PARTIAL TAR SANDS PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all tar sands projects, and commits to phase out one or more types of financing for and/or exclude some tar sands companies.	**EUROPE:** BPCE/Natixis, ING
C+	**TAR SANDS PROJECT EXCLUSION, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all tar sands projects, or prohibits financing for some projects and some tar sands companies.	**EUROPE:** BBVA, Commerzbank, Crédit Agricole, HSBC, KBC, Société Générale, Standard Chartered

GRADE		BANK
C-	**PARTIAL TAR SANDS PROJECT EXCLUSION** Prohibits some financing for tar sands projects.	**AUSTRALIA:** NAB **EUROPE:** ABN AMRO, RBS, Santander **UNITED STATES:** US Bank
D+	**TAR SANDS DUE DILIGENCE** Has an enhanced due diligence process for transactions related to tar sands, with publicly disclosed due diligence criteria.	**CANADA:** RBC, TD **EUROPE:** Barclays, Credit Suisse, UBS **UNITED STATES:** Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Wells Fargo
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO TAR SANDS** Has a general enhanced due diligence process that covers tar sands-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has a tar sands-specific due diligence process without publicly disclosed due diligence criteria.	**AUSTRALIA:** ANZ **EUROPE:** Deutsche Bank **UNITED STATES:** Bank of America
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**AUSTRALIA:** Commonwealth Bank, Westpac **CANADA:** Bank of Montreal, CIBC, Scotiabank **EUROPE:** UniCredit **JAPAN:** Mizuho, MUFG, SMBC Group
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Arctic Oil & Gas

PHOTO: VITSTUDIO / SHUTTERSTOCK

Drilling in the fragile Arctic ecosystem threatens the livelihoods and culture of the Gwich'in people, as well as the global climate. Worryingly, financing for Arctic oil and gas increased from 2017 to 2018.

Worst Banks By Total Arctic Oil & Gas Financing (2016–2018)

BANK		ARCTIC OIL & GAS FINANCING	ARCTIC OIL & GAS POLICY GRADE
JPMORGAN CHASE		$1.727 B	D+
DEUTSCHE BANK		$987 M	D
SMBC GROUP		$921 M	D-

Case Study: Arctic National Wildlife Refuge Under Threat

The Arctic National Wildlife Refuge is as iconic an American natural ecosystem as Yosemite or the Grand Canyon. Established in 1960 by then-President Dwight D. Eisenhower, it has protected and sustained a diverse wildlife population — including polar bears, caribou, peregrine falcons, snowy owls, and many others — as well as the lives and culture of the Gwich'in people, who have depended on the land for thousands of years.[52]

But now it's under siege by the Trump administration, which is intent on opening the Arctic Refuge's 1.6 million-acre coastal plain to drilling of its oil and gas reserves. An unrelated provision opening the Arctic Refuge for drilling was included in the Tax Cuts and Jobs Act, signed into law in December 2017, and now the Trump administration is pushing to sell off the coastal plain on an accelerated schedule.[53]

Warming twice as fast as the rest of the planet, the Arctic is ground zero for climate change.[54] If the Arctic Refuge is opened to drilling, the projected extraction through 2050 would release the equivalent of the annual carbon emissions from over 50 coal plants.[55] When you consider the methane emissions this drilling would cause, the outlook is even worse. These greenhouse gases will only worsen climate impacts in the melting Arctic and abroad. Drilling in the coastal plain also threatens the human rights of the Gwich'in people, who depend on the Porcupine caribou herd that migrates through the Arctic Refuge for 80 percent of their food supply.[56] Any disruption of the coastal plain or the caribou would pose an existential threat to their food security and way of life.

Since the passage of legislation opening up the Arctic Refuge, major banks have been under increasing pressure from Indigenous rights groups, environmentalists, and investors to preemptively reject financing for these destructive activities.

In May 2018, a group of institutional investors representing more than $2.5 trillion in assets sent a letter to 30 leading banks urging them not to invest in drilling or oil exploration there.[57] Since then, representatives from the Gwich'in Steering Committee have held meetings with banks to detail the risks associated with financing Arctic drilling.[58]

In response, both **Barclays** and **NAB** have updated their environmental policies to recognize the unique environmental and human rights risks associated with drilling in the Arctic Refuge.[59] A number of European banks have gone even further, ruling out project or corporate-level financing for these activities. **HSBC**, **BNP Paribas**, and **Société Générale** have made commitments to proactively restrict financing for oil and gas production in this region.[60] However, no U.S. bank has yet publicly committed not to finance the destruction of the Arctic Refuge.

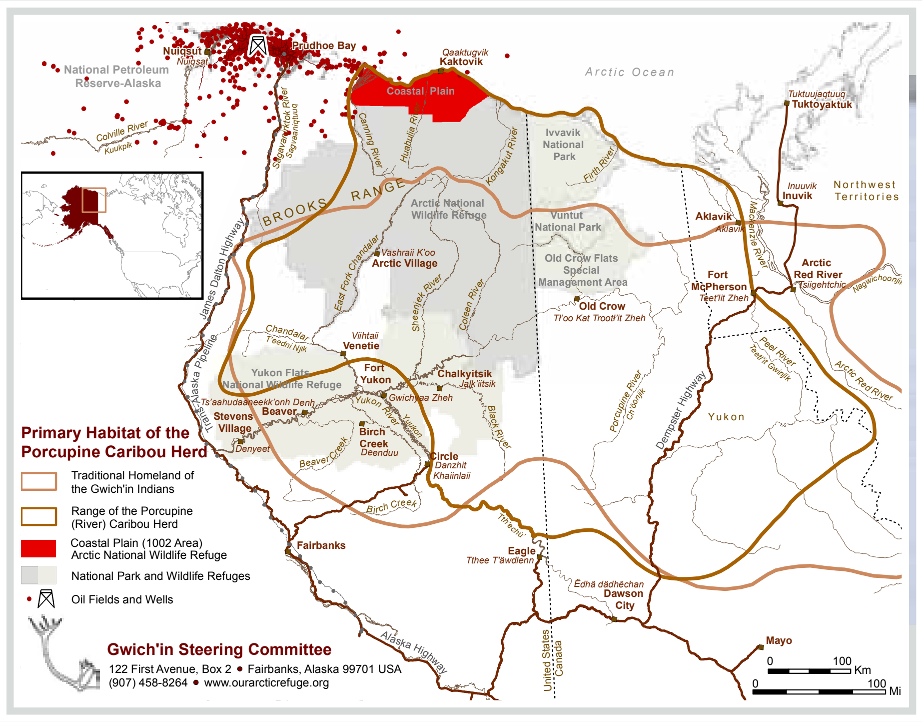
PHOTO: GWICH'IN STEERING COMMITTEE

Drilling in the Arctic Refuge would permanently destroy the primary food source of the Gwich'in people, our culture, and our way of life. Now we must call on oil companies and the banks that fund them to stand with the Gwich'in and leave this pristine and fragile place intact. **The survival of my people depends on it**.

– **Bernadette Demientieff**
Executive Director,
GWICH'IN STEERING COMMITTEE

Bernadette Demientieff (second from the left) brings her story to Barclays.
PHOTO: BEN CUSHING / SIERRA CLUB

Arctic fox
PHOTO: OUTDOORSMAN / SHUTTERSTOCK



Banking on Arctic Oil & Gas - League Table

Bank financing for 30 top Arctic oil and gas companies

RANK	BANK	2016	2017	2018	TOTAL
1	JPMORGAN CHASE	$370 M	$697 M	$660 M	**$1.727 B**
2	DEUTSCHE BANK	$404 M	$463 M	$120 M	**$987 M**
3	SMBC GROUP	$65 M	$455 M	$401 M	**$921 M**
4	CITI	$300 M	$143 M	$365 M	**$807 M**
5	MIZUHO	$167 M	$230 M	$291 M	**$689 M**
6	UNICREDIT	$142 M	$219 M	$304 M	**$665 M**
7	MUFG	$74 M	$170 M	$248 M	**$492 M**
8	CRÉDIT AGRICOLE	$82 M	$213 M	$193 M	**$487 M**
9	BANK OF CHINA	$299 M	$39 M	$142 M	**$479 M**
10	ICBC	$311 M	$31 M	$85 M	**$428 M**
11	TD	$286 M	-	$112 M	**$398 M**
12	BNP PARIBAS	$176 M	$6 M	$167 M	**$348 M**
13	BANK OF AMERICA	$125 M	$4 M	$195 M	**$323 M**
14	ING	$136 M	$25 M	$146 M	**$307 M**
15	UBS	$166 M	$4 M	$134 M	**$303 M**
16	HSBC	$96 M	$12 M	$191 M	**$300 M**
17	BARCLAYS	$152 M	$14 M	$96 M	**$262 M**
18	SOCIÉTÉ GÉNÉRALE	$37 M	$19 M	$183 M	**$240 M**
19	WELLS FARGO	-	$92 M	$142 M	**$234 M**
20	GOLDMAN SACHS	$9 M	$90 M	$106 M	**$204 M**
21	SCOTIABANK	$136 M	$20 M	$4 M	**$161 M**
22	CREDIT SUISSE	$10 M	$4 M	$133 M	**$147 M**
23	STANDARD CHARTERED	$13 M	$131 M	$0 M	**$144 M**
24	MORGAN STANLEY	$60 M	$21 M	$51 M	**$132 M**
25	CHINA CONSTRUCTION BANK	$87 M	$27 M	-	**$114 M**
26	AGRICULTURAL BANK OF CHINA	$87 M	$10 M	-	**$97 M**
27	BPCE/NATIXIS	-	$2 M	$39 M	**$42 M**
28	BANK OF MONTREAL	-	-	$30 M	**$30 M**
29	SANTANDER	$3 M	$9 M	$17 M	**$28 M**
30	RBC	-	$2 M	$25 M	**$28 M**
31	BBVA	$11 M	$2 M	-	**$13 M**
32	CIBC	-	-	$4 M	**$4 M**
33	RBS	$1 M	-	-	**$1 M**
GRAND TOTAL		**$3.804 B**	**$3.155 B**	**$4.582 B**	**$11.541 B**


PHOTO: VLADIMIR MELNIK / SHUTTERSTOCK

Arctic Oil & Gas - Policy Grades

GRADE		BANK
A	**ARCTIC OIL & GAS EXCLUSION** Prohibits all financing for all Arctic oil and gas projects and all companies with Arctic oil and gas operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF ARCTIC OIL & GAS EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all Arctic oil and gas projects and all companies with Arctic oil and gas expansion plans, and commits to phase out all financing for all companies with Arctic oil and gas operations, with public reporting on implementation.	
B+	**EXCLUSION OF ARCTIC OIL & GAS EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all Arctic oil and gas projects, all financing for companies with Arctic oil and gas expansion plans, and all financing for companies with significant Arctic oil and gas operations, with public reporting on implementation.	
B	**EXCLUSION OF ARCTIC OIL & GAS EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for all Arctic oil and gas projects and all financing for companies with either Arctic oil and gas expansion plans or significant Arctic oil and gas activity.	
B-	**PARTIAL ARCTIC OIL & GAS PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all Arctic oil and gas projects, and commits to phase out some financing for and/or exclude some Arctic oil and gas companies.	**EUROPE:** BNP Paribas
C+	**ARCTIC OIL & GAS PROJECT EXCLUSION, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all Arctic oil and gas projects, or prohibits financing for some projects and some Arctic oil and gas companies.	**EUROPE:** ABN AMRO, BBVA, Commerzbank, ING, Société Générale, Standard Chartered

GRADE		BANK
C-	**PARTIAL ARCTIC OIL & GAS PROJECT EXCLUSION** Prohibits some financing for Arctic oil and gas projects.	**AUSTRALIA:** NAB **EUROPE:** BPCE/Natixis, Crédit Agricole, HSBC, RBS
D+	**ARCTIC OIL & GAS DUE DILIGENCE** Has an enhanced due diligence process for transactions related to Arctic oil and gas, with publicly disclosed due diligence criteria.	**EUROPE:** Barclays, UBS **UNITED STATES:** Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Wells Fargo
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO ARCTIC OIL & GAS** Has a general enhanced due diligence process that covers Arctic oil and gas-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has an Arctic oil and gas-specific due diligence process without publicly disclosed due diligence criteria.	**AUSTRALIA:** ANZ **CANADA:** RBC, TD **EUROPE:** Credit Suisse, Deutsche Bank, Santander **UNITED STATES:** Bank of America
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**AUSTRALIA:** Commonwealth Bank, Westpac **CANADA:** Bank of Montreal, CIBC, Scotiabank **EUROPE:** UniCredit **JAPAN:** Mizuho, MUFG, SMBC Group
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Ultra-Deepwater Oil & Gas

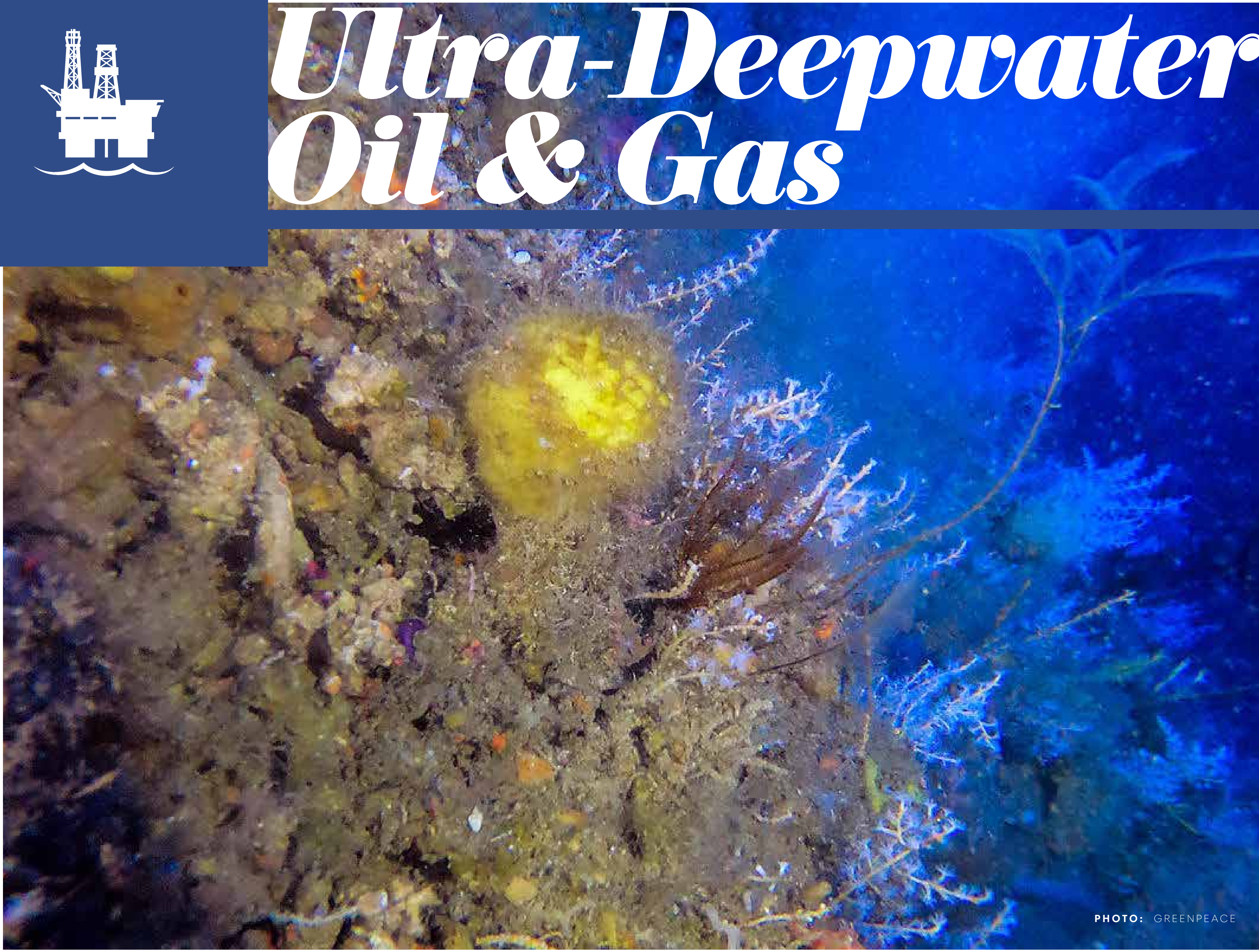


PHOTO: GREENPEACE

Drilling in ultra-deep waters, at depths of 1,500 meters and beyond, endangers people and planet.[61] None of the banks in this report have policies to proactively restrict financing for ultra-deepwater extraction.

Worst Banks By Total Ultra-Deepwater Financing (2016–2018)

BANK	ULTRA-DEEPWATER OIL & GAS FINANCING	ULTRA-DEEPWATER OIL & GAS POLICY GRADE
JPMORGAN CHASE	$5.393 B	D
CITI	$3.978 B	D+
BANK OF AMERICA	$3.620 B	D-

Banking on Ultra-Deepwater Oil & Gas – League Table

Bank financing for 30 top ultra-deepwater oil and gas companies

RANK	BANK	2016	2017	2018	TOTAL
1	JPMORGAN CHASE	$3.251 B	$1.530 B	$611 M	$5.393 B
2	CITI	$1.224 B	$1.280 B	$1.473 B	$3.978 B
3	BANK OF AMERICA	$2.678 B	$455 M	$486 M	$3.620 B
4	HSBC	$495 M	$2.351 B	$275 M	$3.120 B
5	SANTANDER	$1.925 B	$471 M	$133 M	$2.528 B
6	MORGAN STANLEY	$1.073 B	$1.180 B	$197 M	$2.450 B
7	MIZUHO	$699 M	$327 M	$1.272 B	$2.298 B
8	BNP PARIBAS	$618 M	$466 M	$1.113 B	$2.197 B
9	CRÉDIT AGRICOLE	$293 M	$360 M	$1.076 B	$1.729 B
10	BARCLAYS	$1.110 B	$196 M	$308 M	$1.614 B
11	SOCIÉTÉ GÉNÉRALE	$908 M	$254 M	$314 M	$1.476 B
12	DEUTSCHE BANK	$774 M	$368 M	$68 M	$1.210 B
13	GOLDMAN SACHS	$546 M	$354 M	$237 M	$1.137 B
14	MUFG	$331 M	$411 M	$291 M	$1.033 B
15	STANDARD CHARTERED	$6 M	$675 M	$4 M	$685 M
16	UBS	$138 M	$138 M	$250 M	$526 M
17	CREDIT SUISSE	$242 M	$94 M	$135 M	$471 M
18	SMBC GROUP	$196 M	$103 M	$152 M	$451 M
19	ICBC	$283 M	$22 M	$114 M	$418 M
20	BBVA	$233 M	$114 M	$56 M	$403 M
21	RBC	$256 M	$43 M	$53 M	$351 M
22	BANK OF CHINA	$150 M	$41 M	$158 M	$349 M
23	UNICREDIT	$109 M	$139 M	$85 M	$333 M
24	WELLS FARGO	$142 M	$68 M	$84 M	$294 M
25	BPCE/NATIXIS	$64 M	$46 M	$26 M	$137 M
26	SCOTIABANK	-	$44 M	$79 M	$124 M
27	ING	$100 M	$21 M	-	$121 M
28	AGRICULTURAL BANK OF CHINA	$88 M	$14 M	$17 M	$119 M
29	CHINA CONSTRUCTION BANK	$48 M	$14 M	$4 M	$66 M
30	RBS	$42 M	-	-	$42 M
31	CIBC	-	-	$19 M	$19 M
32	TD	-	-	$19 M	$19 M
33	BANK OF MONTREAL	-	-	-	-
GRAND TOTAL		$18.020 B	$11.578 B	$9.112 B	$38.710 B

PHOTO: KJERSTI JOERGENSEN / SHUTTERSTOCK

Ultra-Deepwater Oil & Gas – Policy Grades

GRADE		BANK
A	**ULTRA-DEEPWATER OIL & GAS EXCLUSION** Prohibits all financing for all ultra-deepwater oil and gas projects and all companies with ultra-deepwater oil and gas operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF ULTRA-DEEPWATER OIL & GAS EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all ultra-deepwater oil and gas projects and all companies with ultra-deepwater oil and gas expansion plans, and commits to phase out all financing for companies with ultra-deepwater oil and gas operations, with public reporting on implementation.	
B+	**EXCLUSION OF ULTRA-DEEPWATER OIL & GAS EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all ultra-deepwater oil and gas projects, all financing for companies with ultra-deepwater oil and gas expansion plans, and all financing for companies with significant ultra-deepwater oil and gas operations, with public reporting on implementation.	
B	**EXCLUSION OF ULTRA-DEEPWATER OIL & GAS EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for ultra-deepwater oil and gas projects and all financing for companies with either ultra-deepwater oil and gas expansion plans or significant ultra-deepwater oil and gas activity.	
B-	**PARTIAL ULTRA-DEEPWATER OIL & GAS PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all ultra-deepwater oil and gas projects, and commits to phase out some financing for and/or exclude some ultra-deepwater oil and gas companies.	
C+	**ULTRA-DEEPWATER OIL & GAS PROJECT EXCLUSION, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all ultra-deepwater oil and gas projects, or prohibits financing for some projects and some ultra-deepwater oil and gas companies.	

GRADE		BANK
C-	**PARTIAL ULTRA-DEEPWATER OIL & GAS PROJECT EXCLUSION** Prohibits some financing for ultra-deepwater oil and gas projects.	
D+	**ULTRA-DEEPWATER OIL & GAS DUE DILIGENCE** Has an enhanced due diligence process for transactions related to ultra-deepwater oil and gas, with publicly disclosed due diligence criteria.	**UNITED STATES:** Citi, Goldman Sachs, Morgan Stanley, Wells Fargo
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO ULTRA-DEEPWATER OIL & GAS** Has a general enhanced due diligence process that covers ultra-deepwater oil and gas-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has an ultra-deepwater-specific due diligence process without publicly disclosed due diligence criteria.	**AUSTRALIA:** ANZ **CANADA:** RBC, TD **EUROPE:** Barclays, BBVA, BPCE/Natixis, Crédit Agricole, Credit Suisse, Deutsche Bank, HSBC, ING, RBS, Santander, Société Générale, Standard Chartered **UNITED STATES:** JPMorgan Chase
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**AUSTRALIA:** Commonwealth Bank, NAB, Westpac **CANADA:** Bank of Montreal, CIBC, Scotiabank **EUROPE:** BNP Paribas, UBS, UniCredit **JAPAN:** Mizuho, MUFG, SMBC Group **UNITED STATES:** Bank of America
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Fracked Oil & Gas

PHOTO: CORLAFFRA / SHUTTERSTOCK

Financing for fracked oil and gas producers and transporters is on the rise over the past three years. **Wells Fargo** and **JPMorgan Chase** are the biggest bankers of fracking overall — and in particular, they support key companies active in the Permian Basin, the epicenter of the climate-threatening global surge of oil and gas production.

Worst Banks By Total Fracked Oil & Gas Financing (2016–2018)

BANK	FRACKED OIL & GAS FINANCING	FRACKED OIL & GAS POLICY GRADE
WELLS FARGO	$29.650 B	D+
JPMORGAN CHASE	$28.768 B	D+
BANK OF AMERICA	$20.210 B	D-

Case Study: Fracking the Permian Basin, Undermining Climate Progress

Hydraulic fracturing (fracking) — injecting high-pressure fluids into shale rock in order to force out oil and gas — provides access to hundreds of billions of barrels of oil and many trillions of cubic feet of fossil gas. These previously inaccessible hydrocarbons are flooding global markets at precisely the time that global emissions from oil and gas should be going into reverse. Put simply, the fracking boom may pose the largest threat to climate progress in the world today.[62]

The Permian Basin in Texas and New Mexico is currently the epicenter of this global surge of oil and gas production. No other geological basin has so much potential for production growth and therefore so much potential to fuel additional climate pollution.[63] Projections suggest that oil production, including production of fossil gas liquids (hydrocarbons such as ethane, propane, and butane, used for heating and cooking and as feedstock for the petrochemical and plastics industry) could grow from 4.7 million barrels per day to nearly 12 million barrels per day by 2030.[64] Gas, which in the Permian Basin is mostly produced as a byproduct and is currently flared at unprecedented rates, is projected to see a 130 percent increase in production over the same period.[65]

As U.S. Gulf Coast refineries are already saturated with the light oil produced domestically, and the U.S. fossil gas market is also well supplied, most of this production growth is destined for global markets.[66]

Fracking has upended global markets for oil and gas, lowering prices and undercutting efforts to reduce global demand.[67] While some may view this as positive for the global economy in the short term, the long-term implications are disturbing. With few if any regulatory controls on fracking in place in North America or elsewhere, its continued expansion could unleash a flood of cheap oil and gas for several decades to come, threatening the clean energy transition we need to make in order to tackle the climate crisis — while at the same time putting the health of surrounding communities at risk.

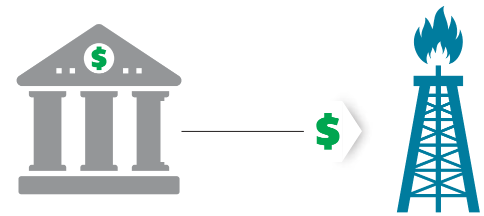
Levels of volatile organic compound pollution in the Permian were six times higher in 2014 than in 2011, before the onset of the fracking boom, while levels of benzene emissions were a startling 680 percent higher.[68]

In one example of the fracking boom's impact on community health, in Reeves County, Texas, Sue and Jim Franklin used to enjoy the fresh air and mountain views of their home outside Balmorhea. Now, with fracked oil and gas wells just half a mile from their house, they suffer from nosebleeds, headaches, and difficulty breathing. A sign reading "Caution Poison Gas" warns of winds that often blow pollution directly onto their property. The nearby mountains are no longer visible due to the smog.[69]

Jim and Sue's story is just one of many across the Permian and beyond of people suffering impacts to their health and environments due to the fracking boom. And this is not where fracking's impacts end: earthquakes of a certain intensity tripled in West Texas and eastern New Mexico last year, 'man camps' bring in drug use and crime, and fracking uses an immense amount of water, in turn threatening water access for others in this semi-arid region.[70]

The fracking companies listed on page 97 are projected to produce the most fracked oil and gas through 2050, on top of their current production. Financing this reckless expansion of the oil and gas industry is financing one of the biggest threats to climate progress today, at the expense of the communities living atop these oil and gas reserves.

Who's Banking **Fracking** in the Permian Basin?



EOG Resources, EQT Corporation, Pioneer Natural Resources, and Concho Resources are the top pure-play fracking companies active in the Permian. This chart shows the banks that, since the Paris Agreement, have led deals for at least three of the four top frackers.[71]

	EOG RESOURCES	EQT CORPORATION	PIONEER NATURAL RESOURCES	CONCHO RESOURCES
WELLS FARGO	✗	✗	✗	✗
JPMORGAN CHASE	✗	✗	✗	✗
BANK OF AMERICA		✗	✗	✗
BARCLAYS	✗	✗		✗
CITI	✗	✗		✗
GOLDMAN SACHS	✗	✗		✗
MUFG	✗	✗		✗
RBC	✗	✗		✗

Banking on Fracked Oil & Gas - League Table

Bank financing for 30 top fracking companies and ten key fracked oil and gas pipeline companies

RANK	BANK	2016	2017	2018	TOTAL
1	WELLS FARGO	$7.290 B	$10.622 B	$11.737 B	**$29.650 B**
2	JPMORGAN CHASE	$10.939 B	$8.551 B	$9.278 B	**$28.768 B**
3	BANK OF AMERICA	$4.848 B	$8.006 B	$7.356 B	**$20.210 B**
4	CITI	$5.490 B	$5.806 B	$5.569 B	**$16.866 B**
5	SCOTIABANK	$3.890 B	$5.804 B	$6.267 B	**$15.961 B**
6	BARCLAYS	$4.788 B	$4.655 B	$3.546 B	**$12.989 B**
7	RBC	$4.237 B	$4.285 B	$4.202 B	**$12.724 B**
8	MIZUHO	$3.122 B	$3.645 B	$5.604 B	**$12.372 B**
9	MUFG	$2.539 B	$4.001 B	$5.366 B	**$11.906 B**
10	CREDIT SUISSE	$3.831 B	$3.466 B	$1.871 B	**$9.167 B**
11	GOLDMAN SACHS	$4.806 B	$2.157 B	$1.423 B	**$8.386 B**
12	MORGAN STANLEY	$2.069 B	$3.525 B	$1.969 B	**$7.563 B**
13	DEUTSCHE BANK	$2.038 B	$2.039 B	$1.939 B	**$6.016 B**
14	TD	$1.665 B	$1.836 B	$2.277 B	**$5.777 B**
15	SMBC GROUP	$430 M	$1.261 B	$1.371 B	**$3.062 B**
16	CRÉDIT AGRICOLE	$165 M	$1.373 B	$1.240 B	**$2.778 B**
17	SOCIÉTÉ GÉNÉRALE	$777 M	$325 M	$938 M	**$2.041 B**
18	HSBC	$597 M	$303 M	$991 M	**$1.891 B**
19	UBS	$257 M	$1.262 B	$206 M	**$1.724 B**
20	BNP PARIBAS	$989 M	$303 M	$38 M	**$1.330 B**
21	BANK OF MONTREAL	$50 M	-	$948 M	**$998 M**
22	RBS	$400 M	$463 M	-	**$863 M**
23	BBVA	$157 M	$244 M	$382 M	**$783 M**
24	BPCE/NATIXIS	$120 M	$310 M	$250 M	**$680 M**
25	ICBC	$359 M	$83 M	$21 M	**$463 M**
26	BANK OF CHINA	$174 M	$83 M	$21 M	**$278 M**
27	AGRICULTURAL BANK OF CHINA	$108 M	$38 M	$21 M	**$166 M**
28	CIBC	$97 M	-	$59 M	**$156 M**
29	SANTANDER	-	$40 M	$76 M	**$116 M**
30	ING	$62 M	$45 M	-	**$107 M**
31	STANDARD CHARTERED	$33 M	$38 M	$21 M	**$92 M**
32	CHINA CONSTRUCTION BANK	$33 M	$38 M	$21 M	**$92 M**
33	UNICREDIT	-	-	-	**-**
	GRAND TOTAL	$66.363 B	$74.604 B	$75.007 B	**$215.973 B**

West Texas continues to be extracted by the boom and bust economy of fossil fuels, with short term gains for polluters and generational losses for local communities.

– **Bryan Parras**
Beyond Dirty Fuels Gulf Coast Organizer,
SIERRA CLUB

PHOTO: EARTHWORKS

Fracked Oil & Gas – Policy Grades

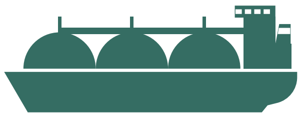
GRADE		BANK
A	**FRACKED OIL & GAS EXCLUSION** Prohibits all financing for all fracked oil and gas projects and all companies with fracked oil and gas operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF FRACKED OIL & GAS EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all fracked oil and gas projects and all companies with fracked oil and gas expansion plans, and commits to phase out all financing for companies with fracked oil and gas operations, with public reporting on implementation.	
B+	**EXCLUSION OF FRACKED OIL & GAS EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all fracked oil and gas projects, all financing for companies with fracked oil and gas expansion plans, and all financing for companies with significant fracked oil and gas operations, with public reporting on implementation.	
B	**EXCLUSION OF FRACKED OIL & GAS EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for all fracked oil and gas projects and all financing for companies with either fracked oil and gas expansion plans or significant fracked oil and gas activity.	**EUROPE:** BNP Paribas
B-	**PARTIAL FRACKED OIL & GAS PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all fracked oil and gas projects, and commits to phase out some financing for and/or exclude some fracked oil and gas companies.	
C+	**FRACKED OIL & GAS PROJECT EXCLUSION, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all fracked oil and gas projects, or prohibits financing for some projects and some fracked oil and gas companies.	**EUROPE:** Commerzbank

GRADE		BANK
C-	**PARTIAL FRACKED OIL & GAS PROJECT EXCLUSION** Prohibits some financing for fracked oil and gas projects.	**EUROPE:** Rabobank **UNITED STATES:** US Bank
D+	**FRACKED OIL & GAS DUE DILIGENCE** Has an enhanced due diligence process for transactions related to fracked oil and gas, with publicly disclosed due diligence criteria.	**EUROPE:** BPCE/Natixis, Crédit Agricole, Deutsche Bank, HSBC, ING, RBS, Société Générale, UBS **UNITED STATES:** Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Wells Fargo
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO FRACKED OIL& GAS** Has a general enhanced due diligence process that covers fracked oil and gas-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has a fracked oil and gas-specific due diligence process without publicly disclosed due diligence criteria.	**AUSTRALIA:** ANZ **CANADA:** RBC, TD **EUROPE:** Barclays, BBVA, Credit Suisse, Santander, Standard Chartered
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**AUSTRALIA:** Commonwealth Bank, NAB, Westpac **CANADA:** Bank of Montreal, CIBC, Scotiabank **EUROPE:** UniCredit **JAPAN:** Mizuho, MUFG, SMBC Group **UNITED STATES:** Bank of America
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Liquefied Natural Gas

PHOTO: PEENTHO / SHUTTERSTOCK

Banks have financed top companies building LNG import and export terminals around the world with $46 billion since the Paris Agreement. They have an opportunity to avoid further damage by not financing Anadarko's Mozambique LNG project in particular.



Worst Banks By Total LNG Financing (2016–2018)

BANK		LNG FINANCING	LNG POLICY GRADE
JPMORGAN CHASE		$4.040 B	D-
SOCIÉTÉ GÉNÉRALE		$3.348 B	D+
SMBC GROUP		$3.282 B	D-

Case Study: Mozambique LNG

Ever since gas was found in the Rovuma Basin off the coast of northern Mozambique in 2010, the communities and environment of Cabo Delgado province have borne the brunt of corporations rushing in to grab their resources.[72] Anadarko, ExxonMobil, and Eni — financed by China, France, Italy, South Korea, and other governments, as well as many private banks (listed on next page) — are key companies involved in extracting and processing the gas.[73]

The projects are still in the exploration phase, but already thousands of people are being forcibly relocated.[74] Anadarko and its partner companies are also proposing to build the country's first LNG export facility on 17,000 acres on the coast — with the capacity to export nearly 23 million metric tons of LNG per year.[75] With their farmland and fishing grounds being taken by multinational corporations, entire communities will lose their homes, land, and livelihoods.[76] Locals will receive very few jobs, and an influx of workers from other countries and other parts of Mozambique will likely bring an increase in diseases, including sexually transmitted infections, and place a strain on already limited health-care and education resources.[77]

The climate impact will be significant as the production, transport, liquefaction, shipping, re-gasification, and power plant combustion of LNG is highly energy-intensive, and thus carbon-intensive; the upstream greenhouse gas emissions from LNG are almost double the greenhouse gas emissions of conventional natural gas.[78] The carbon emissions from the onshore and offshore projects will increase Mozambique's total emissions by at least 8 percent.[79]

The environmental impact of LNG development in this region is massive. Not only will it destroy fishing grounds, but it also threatens the Quirimbas National Park, a UNESCO biosphere reserve that includes areas of pristine coral reefs, mangroves, and seagrass beds.[80] Dredging, waste disposal, and construction will devastate ecosystems of endangered plant and animal species.[81]

Dissent is met with threats from the government and private security, with police sometimes appearing in order to stop meetings. The "consultation process" is farcical, as communities cannot speak out in the presence of leaders, many of whom have relationships with the gas industry or government, for fear of threats or difficulty with any compensation that may have been promised.[82]

If these are the impacts of the exploration phase, one shudders to think what will happen when companies actually start operating.

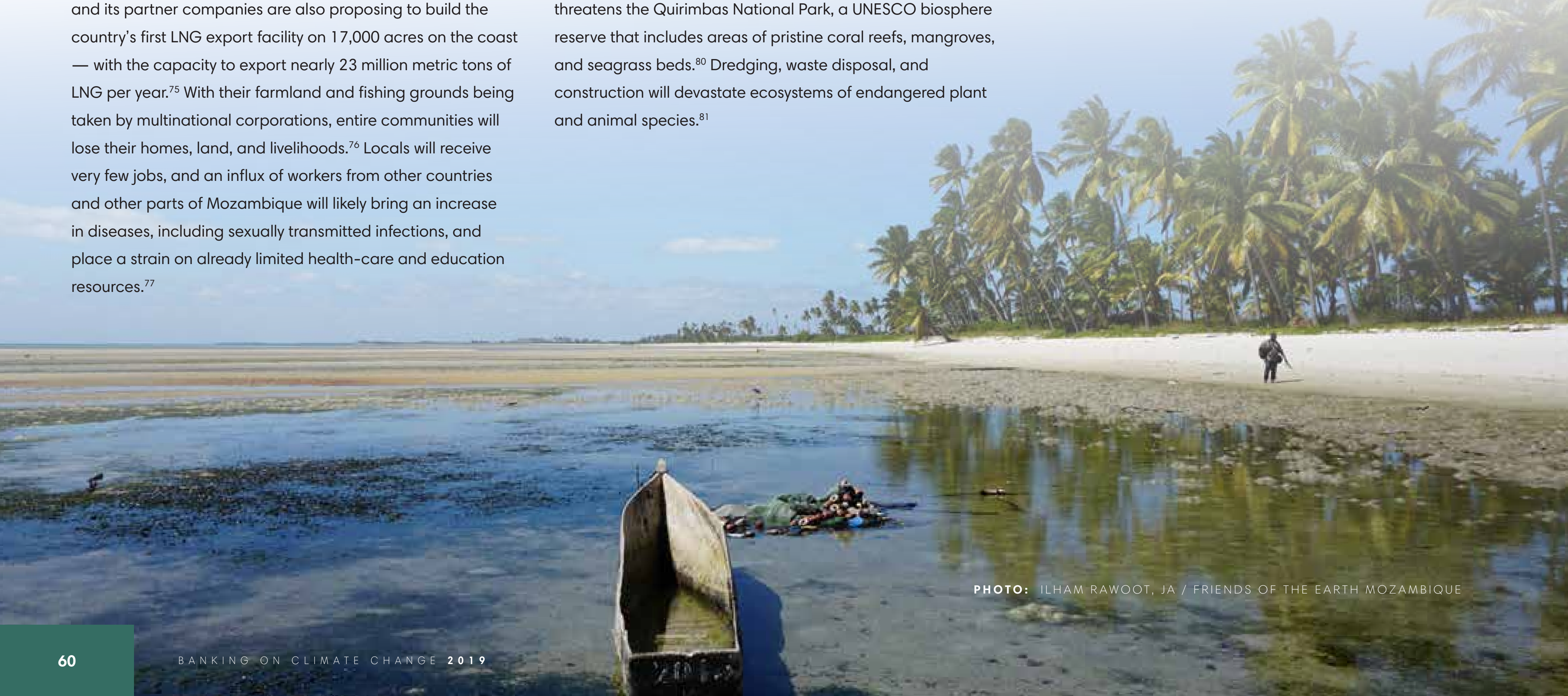


PHOTO: ILHAM RAWOOT, JA / FRIENDS OF THE EARTH MOZAMBIQUE

Who's Banking **LNG** in Mozambique?

CORAL SOUTH LNG	Floating LNG vessel offshore of Mozambique	**MOZAMBIQUE LNG**	Offshore LNG production and onshore LNG export terminal
LEAD COMPANIES:	Eni, ExxonMobil, China National Petroleum Corporation	**LEAD COMPANIES:**	Anadarko
FINANCE STATUS:	A $4.8 billion project finance package was signed in May 2017.[83] Other financial institutions, such as the US Export-Import Bank, are still considering support.[84]	**FINANCE STATUS:**	Anadarko is hoping to make a final investment decision on its $15 billion Mozambique LNG project in the first half of 2019.[85]
BANKS: [86]	**ICBC**: $550 million Export-Import Bank of Korea: $510 million **Bank of China**: $500 million Export-Import Bank of China: $500 million **Crédit Agricole**: $399 million **SMBC Group**: $329 million Korea Development Bank: $300 million **HSBC**: $300 million **BPCE/Natixis**: $267 million Banco Comercial Portugues: $254 million **BNP Paribas**: $251 million **Société Générale**: $242 million **UniCredit**: $175 million ABN AMRO: $129 million UBI Banca: $100 million Standard Bank: $75 million	**BANKS:**	The banks that financed Coral South LNG — and their peers around the world — can still make the right choice: stay away from this destructive project.

Banking on Liquefied Natural Gas - League Table

Bank financing for 30 top liquefied natural gas import and export companies

RANK	BANK	2016	2017	2018	TOTAL
1	JPMORGAN CHASE	$1.730 B	$659 M	$1.650 B	$4.040 B
2	SOCIÉTÉ GÉNÉRALE	$1.591 B	$1.096 B	$661 M	$3.348 B
3	SMBC GROUP	$1.349 B	$708 M	$1.225 B	$3.282 B
4	CITI	$1.184 B	$458 M	$1.225 B	$2.867 B
5	MORGAN STANLEY	$979 M	$773 M	$987 M	$2.740 B
6	MIZUHO	$1.197 B	$490 M	$731 M	$2.418 B
7	MUFG	$1.086 B	$541 M	$529 M	$2.156 B
8	BANK OF AMERICA	$838 M	$685 M	$588 M	$2.110 B
9	BNP PARIBAS	$1.173 B	$443 M	$136 M	$1.752 B
10	RBC	$531 M	$418 M	$776 M	$1.724 B
11	HSBC	$613 M	$597 M	$444 M	$1.653 B
12	CRÉDIT AGRICOLE	$638 M	$546 M	$367 M	$1.551 B
13	GOLDMAN SACHS	$689 M	$528 M	$320 M	$1.538 B
14	ING	$742 M	$171 M	$560 M	$1.473 B
15	BARCLAYS	$777 M	$57 M	$615 M	$1.450 B
16	CREDIT SUISSE	$729 M	$290 M	$407 M	$1.427 B
17	SCOTIABANK	$511 M	$404 M	$491 M	$1.407 B
18	ICBC	$563 M	$556 M	$251 M	$1.370 B
19	BANK OF CHINA	$521 M	$506 M	$251 M	$1.278 B
20	SANTANDER	$752 M	$24 M	$428 M	$1.204 B
21	BBVA	$489 M	$83 M	$504 M	$1.076 B
22	UNICREDIT	$569 M	$217 M	$260 M	$1.046 B
23	DEUTSCHE BANK	$456 M	$222 M	$283 M	$961 M
24	UBS	$302 M	$111 M	$323 M	$736 M
25	BPCE/NATIXIS	$322 M	$274 M	$13 M	$609 M
26	STANDARD CHARTERED	$174 M	$91 M	$256 M	$521 M
27	WELLS FARGO	$43 M	$93 M	$41 M	$177 M
28	CHINA CONSTRUCTION BANK	$155 M	$3 M	$2 M	$160 M
29	CIBC	-	-	$24 M	$24 M
30	BANK OF MONTREAL	-	-	$20 M	$20 M
31	AGRICULTURAL BANK OF CHINA	$8 M	$3 M	$2 M	$13 M
32	TD	-	-	-	-
33	RBS	-	-	-	-
GRAND TOTAL		$20.714 B	$11.047 B	$14.369 B	$46.130 B

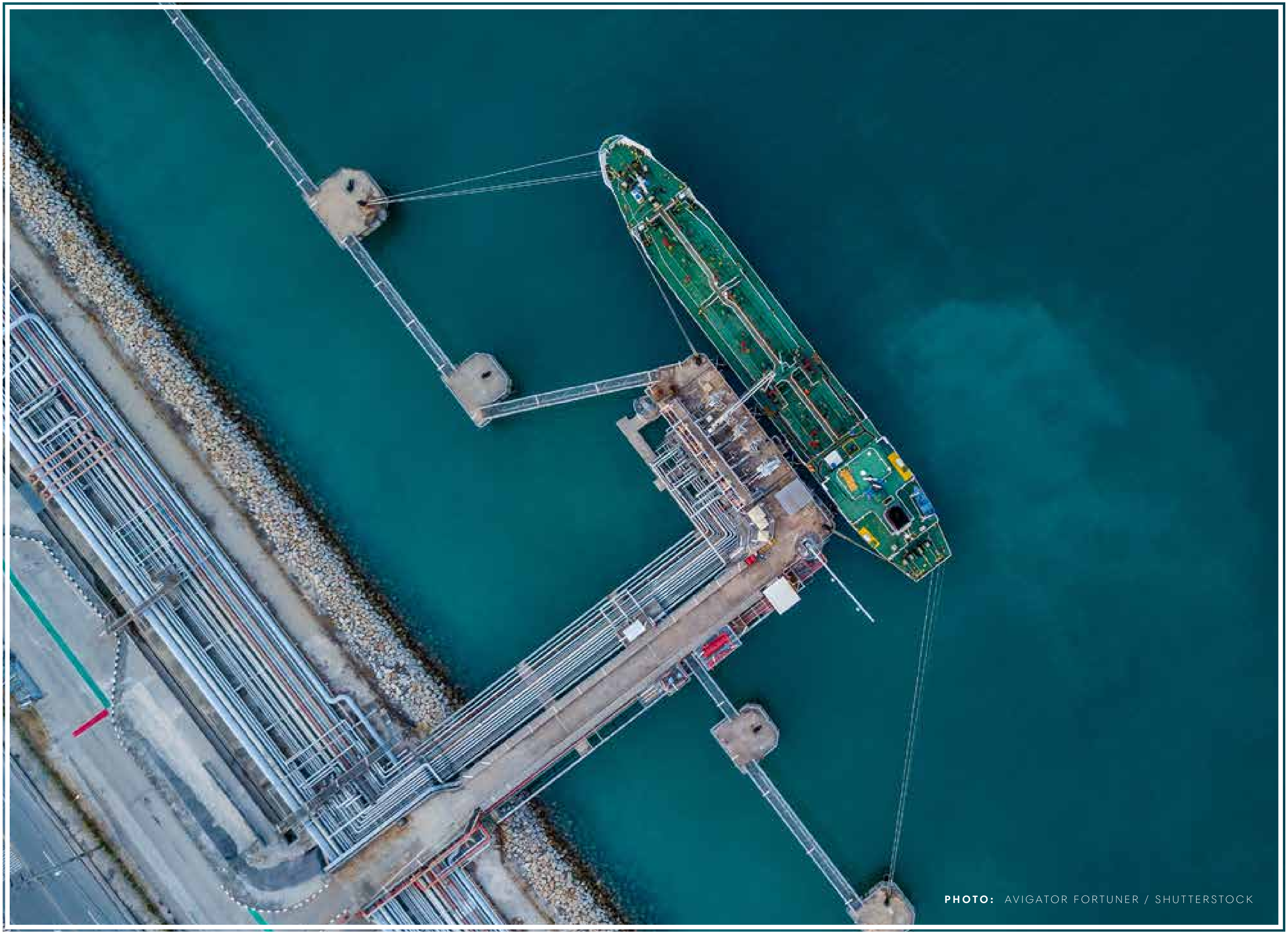


PHOTO: AVIGATOR FORTUNER / SHUTTERSTOCK

Liquefied Natural Gas - Policy Grades

GRADE		BANK
A	**LNG EXCLUSION** Prohibits all financing for all LNG projects and all companies with LNG operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF LNG EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all LNG projects and all companies with LNG expansion plans, and commits to phase out all financing for companies with LNG operations, with public reporting on implementation.	
B+	**EXCLUSION OF LNG EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all LNG projects, all financing for companies with LNG expansion plans, and all financing for companies with significant LNG operations, with public reporting on implementation.	
B	**EXCLUSION OF LNG EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for all LNG projects and prohibits all financing for companies with either LNG expansion plans or significant LNG activity.	
B-	**PARTIAL LNG PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all LNG projects, and commits to phase out some financing for and/or exclude some LNG companies.	
C+	**LNG PROJECT EXCLUSION, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all LNG projects, or prohibits financing for some projects and some LNG companies.	**EUROPE:** BNP Paribas
C-	**PARTIAL LNG PROJECT EXCLUSION** Prohibits some financing for LNG projects.	

GRADE		BANK
D+	**LNG DUE DILIGENCE** Has an enhanced due diligence process for transactions related to LNG, with publicly disclosed due diligence criteria.	**EUROPE:** Société Générale **UNITED STATES:** Morgan Stanley
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO LNG** Has a general enhanced due diligence process that covers LNG-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has an LNG-specific due diligence process without publicly disclosed due diligence criteria.	**CANADA:** RBC, TD **EUROPE:** Barclays, BBVA, BPCE/Natixis, Crédit Agricole, Credit Suisse, Deutsche Bank, HSBC, ING, RBS, Santander, Standard Chartered **UNITED STATES:** Citi, Goldman Sachs, Wells Fargo
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**AUSTRALIA:** ANZ, Commonwealth Bank, NAB, Westpac **CANADA:** Bank of Montreal, CIBC, Scotiabank **EUROPE:** UBS, UniCredit **JAPAN:** Mizuho, MUFG, SMBC Group **UNITED STATES:** Bank of America, JPMorgan Chase
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Task Force on Climate-Related Financial Disclosures:

Disclosure Must Lead to Paris Agreement Alignment

In 2017, the Task Force on Climate-Related Financial Disclosures (TCFD) published recommendations on how companies should report on the risks that climate change poses to their businesses.[87] The TCFD was a finance-industry initiative chaired by Michael Bloomberg. It recommends four areas of disclosure — governance, strategy, risk management, and metrics and targets — with additional guidance for how the financial sector can lay out the transition and physical risks they face from climate change.[88] Transition risks are those that financiers face from loans and investments in fossil fuel-intensive sectors that will need to be rapidly phased out to mitigate climate change; physical risks are those from the impacts of climate change to infrastructure and supply chains.

The TCFD's specific guidance for banks notes: "Banks that provide loans or trade the securities of companies with direct exposure to climate-related risks (e.g., fossil fuel producers, intensive fossil fuel consumers, real property owners, or agricultural/food companies) may accumulate climate-related risks via their credit and equity holdings."[89] The disclosure exercise is primarily framed as a way for banks to understand how climate change will impact their bottom line — and for shareholders in banks to understand the relative exposure of their investments to climate change, with the implication that the shareholders will use this information to pressure the banks to reduce their climate exposure.

The TCFD recommends that banks report on their credit exposure, equity and debt holdings, or trading positions in "carbon-related assets," which TCFD suggests to be narrowly defined as "assets tied to the energy and utilities sectors."[90] Additionally, in the "metrics and targets" area, the TCFD recommends that all companies disclose not just their own operational emissions but also "if appropriate, Scope 3 GHG emissions and the related risks."[91] Scope 3 refers to emissions indirectly generated by company activities.[92] For banks, this means financed emissions, and would include emissions caused by all fossil fuel energy-related projects and companies they finance. If the $1.9 trillion in fossil fuel funding revealed in this fossil fuel finance report card indicates anything, it's that banks are responsible for an enormous amount of greenhouse gas emissions through their financing.

In order to limit global warming to 1.5°C, emissions must be cut to effectively zero by 2050 (see page 21) — which means that disclosure of these financed emissions indicates how far a bank is from aligning its business with the Paris Agreement.

Sixteen banks have joined with the United Nations Environment Programme (UNEP) Finance Initiative to begin to pilot implementation of the TCFD's recommendations, including **Barclays**, **BBVA**, **BNP Paribas**, **Citi, RBC**, **Santander**, **Société Générale**, **Standard Chartered**, **TD**, and **UBS**.[93]

Citi, **Standard Chartered**, **BBVA**, **RBS**, **UBS**, and **ANZ** were some of the first banks to publish disclosures aligned with some of the TCFD recommendations.[94] For instance, **Citi** used scenario analysis — including, specifically, a scenario in which global warming is limited to 1.5°C — to understand how climate change will affect its credit exposure to certain groupings of high-carbon clients.[95] **ANZ**, in its reporting, disclosed its exposure to oil and gas, coal mining, and electric utilities.[96] TCFD is an important initiative echoing a broad upsurge in discussion of climate change, and these companies have shown leadership in piloting and legitimizing climate-related disclosures among their peers.

That said, accurate disclosure of climate risk exposure still has a long way to go. While reporting is still in its early stages, so far no bank has fully reported its financed emissions — an indication that banks remain wary of associating themselves with these emissions.[97]

And, of course, disclosure is just the first step. The next and more important step is alignment with the goals of the Paris Agreement. At the end of the day, if the TCFD is to be a tool to not just measure but mitigate the climate crisis, then companies must reflect on their lessons learned and use them to adapt their business strategies — and their shareholders must pressure them to do so. Upon full disclosure of its financed emissions, it would be difficult for a bank to justify letting the fossil-heavy part of its business carry on unrestrained. After all, the ultimate risk at play is not whether the financial sector will survive the climate crisis with padded pockets — it's whether our shared planet and humanity itself will survive.

Coal Mining

PHOTO: BERND LAUTER / GREENPEACE

Coal mining finance is dominated by the four major Chinese banks. Though many European and U.S. banks have policies in place restricting financing for coal mining, total financing has only fallen by three to five percentage points each year.

Worst Banks By Total Coal Mining Financing (2016–2018)

BANK	COAL MINING FINANCING	COAL MINING POLICY GRADE
CHINA CONSTRUCTION BANK	$9.424 B	F
BANK OF CHINA	$9.206 B	F
ICBC	$6.877 B	F

Case Study: RWE Plans Destruction of Ancient German Forest

Europe's rapidly advancing clean energy transition saw another important milestone in 2018 as renewable energy — solar, wind, biomass, and hydropower — overtook coal as Germany's biggest source of electricity for the first time. For now, though, coal remains Germany's single largest source of power, accounting for 39 percent of electricity generation last year in Europe's largest economy.[98]

Yet Germany's most significant coal event of 2018 was headline-grabbing public opposition aimed at plans by RWE, one of the country's biggest utilities, to destroy more of the 12,000-year-old Hambach Forest in order to expand its nearby open-pit lignite coal mine.[99] This totemic case illustrates not only that coal's days are numbered in Germany but also the serious risks now facing RWE and the banks that continue to finance Europe's biggest CO_2 emitter.[100]

Following months of a stand-off during which RWE brazenly mobilized its machinery alongside 4,000 police deployed to clear protestor tree houses, in October a court order forced the company to suspend clearance activities at the forest. This standstill continues as German courts consider a lawsuit brought by the environmental organization Bund für Umwelt und Naturschutz Deutschland (BUND) to oppose the forest's clearance.[101]

RWE executives have sought to justify further flattening of the forest by claiming, among other things, that the company would stand to lose $5.9 billion if it is stopped in its tracks.[102] However, according to Claudia Kemfert, a professor of energy economics at the research institute Deutsches Institut für Wirtschaftsforschung, or DIW Berlin, "RWE misread the mood of the public by moving ahead to dig up the forest. Hambach is a symbol of the watershed we've reached in this country. The country knows it."[103]

It also has been a watershed moment for some of RWE's investors. Germany's DekaBank went on the public record urging RWE to suspend its clearing work, arguing that "as shareholders, we have no benefit from an escalation. On the contrary, we see the risk that RWE will unnecessarily jeopardise its reputation and future viability."[104] The Storebrand pension fund, Norway's largest private asset manager, which had already dropped its RWE shares in 2017 because of the utility's coal dependence, also publicly called on investors to sell their shares in RWE because of the Hambach debacle.[105]

No such noises or divestments have yet emanated from the major banks propping up RWE's coal expansion activities. The banks listed on the next page and other RWE financial backers are now on watch to disassociate themselves from a company that is clinging to its coal business at all costs. Long-awaited proposals from Germany's coal commission in January included a pronouncement that protection of the Hambach Forest is "desirable."[106] In reaction, claiming this would cost tens of millions of euros, the CEO of RWE commented: "One would have to ask oneself how much is a tree worth."[107]

Refusing still to remove its threat to the Hambach Forest, RWE's reckless coal mine expansion plans place it firmly on the wrong side of history and squarely against public opinion.

RWE's biggest coal mining bankers over the last three years are:[108]

1	DEUTSCHE BANK	6	BANK OF AMERICA
2	CREDIT SUISSE	7	SOCIÉTÉ GÉNÉRALE
3	BNP PARIBAS	8	RBC
4	GOLDMAN SACHS	9	MUFG
5	UBS	10	UNICREDIT

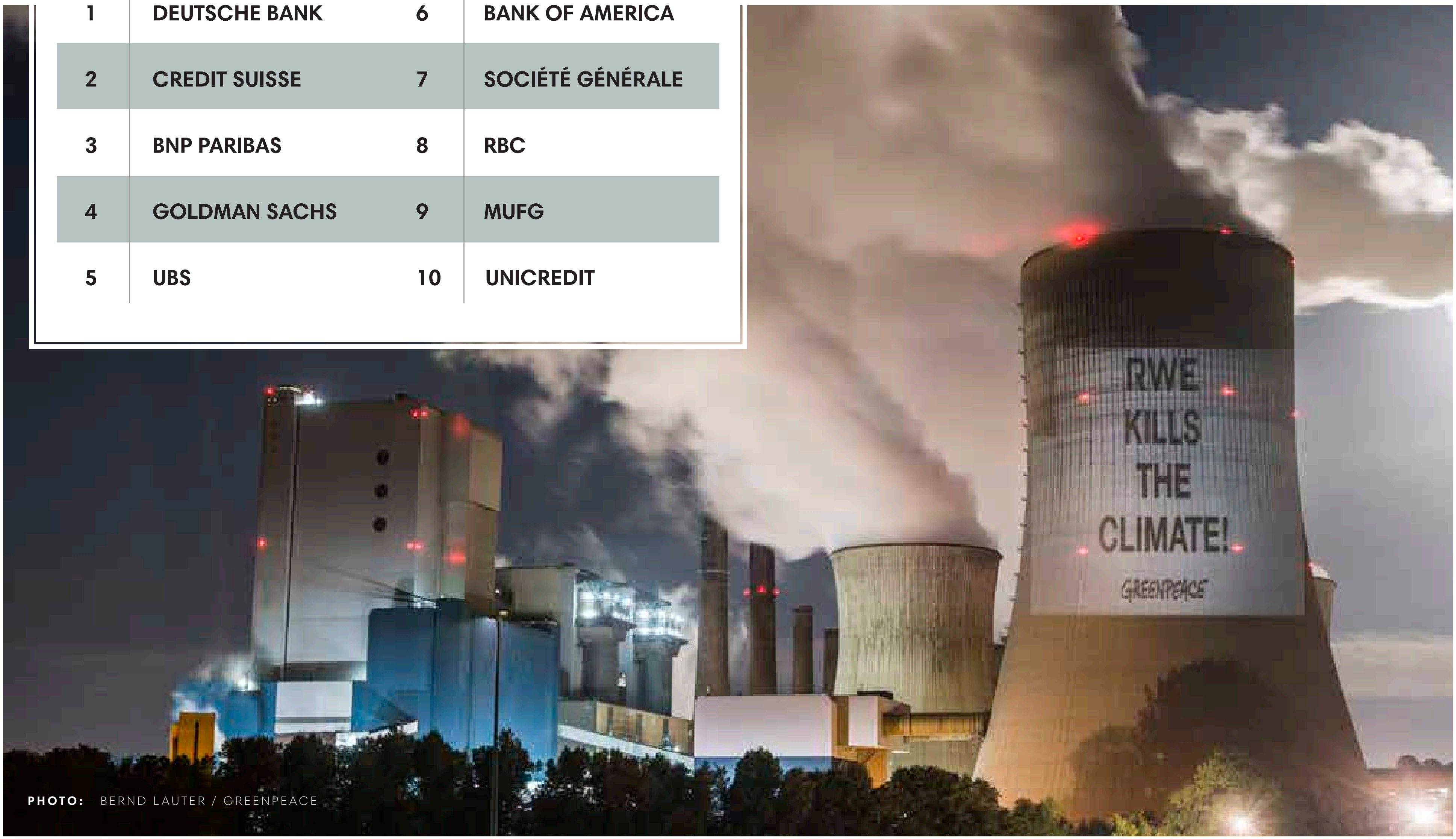


PHOTO: BERND LAUTER / GREENPEACE

Banking on Coal Mining - League Table

Bank financing for 30 top coal mining companies

RANK	BANK	2016	2017	2018	TOTAL
1	CHINA CONSTRUCTION BANK	$3.468 B	$2.842 B	$3.114 B	**$9.424 B**
2	BANK OF CHINA	$4.017 B	$1.866 B	$3.322 B	**$9.206 B**
3	ICBC	$3.101 B	$1.806 B	$1.970 B	**$6.877 B**
4	AGRICULTURAL BANK OF CHINA	$1.525 B	$1.170 B	$1.115 B	**$3.810 B**
5	CREDIT SUISSE	$71 M	$1.498 B	$495 M	**$2.064 B**
6	DEUTSCHE BANK	$37 M	$760 M	$848 M	**$1.645 B**
7	JPMORGAN CHASE	$51 M	$954 M	$152 M	**$1.156 B**
8	CITI	$835 M	$159 M	$127 M	**$1.121 B**
9	GOLDMAN SACHS	$2 M	$930 M	$183 M	**$1.114 B**
10	UNICREDIT	$260 M	$202 M	$286 M	**$748 M**
11	SOCIÉTÉ GÉNÉRALE	$180 M	$294 M	$57 M	**$531 M**
12	BANK OF MONTREAL	$35 M	$183 M	$196 M	**$414 M**
13	MORGAN STANLEY	$35 M	$95 M	$215 M	**$346 M**
14	UBS	$138 M	$57 M	$121 M	**$316 M**
15	ING	$188 M	$41 M	$54 M	**$283 M**
16	BNP PARIBAS	$77 M	$69 M	$102 M	**$248 M**
17	STANDARD CHARTERED	$35 M	$91 M	$120 M	**$246 M**
18	BARCLAYS	$35 M	$104 M	$91 M	**$231 M**
19	HSBC	$83 M	$45 M	$97 M	**$225 M**
20	MIZUHO	$35 M	$116 M	$73 M	**$224 M**
21	SANTANDER	$35 M	$88 M	$73 M	**$197 M**
22	BANK OF AMERICA	$46 M	$76 M	$72 M	**$194 M**
23	RBC	$35 M	$69 M	$73 M	**$177 M**
24	CRÉDIT AGRICOLE	$35 M	$59 M	$73 M	**$168 M**
25	TD	$35 M	$52 M	$73 M	**$160 M**
26	BBVA	$35 M	$41 M	$73 M	**$149 M**
27	SCOTIABANK	$35 M	$41 M	$73 M	**$149 M**
28	MUFG	$35 M	$59 M	$54 M	**$149 M**
29	SMBC GROUP	-	$52 M	$73 M	**$125 M**
30	CIBC	$35 M	-	$19 M	**$55 M**
31	RBS	$40 M	-	-	**$40 M**
32	WELLS FARGO	-	-	-	**-**
33	BPCE/NATIXIS		-	-	**-**
GRAND TOTAL		$14.579 B	$13.819 B	$13.394 B	**$41.792 B**

PHOTO: MARK AGNOR / SHUTTERSTOCK

Coal Mining - Policy Grades

GRADE		BANK
A	**COAL MINING EXCLUSION** Prohibits all financing for all coal mining projects and all companies with coal mining operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF COAL MINING EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all coal mining projects, all companies with coal mining expansion plans, and all companies with significant coal mining operations, and commits to phase out all financing for all companies with coal mining operations, with public reporting on implementation.	
B+	**EXCLUSION OF COAL MINING EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all coal mining projects, all financing for companies with coal mining expansion plans, and all financing for companies with significant coal mining operations, with public reporting on implementation.	
B	**EXCLUSION OF COAL MINING EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for all coal mining projects, and either prohibits all financing for companies with coal mining expansion plans or prohibits all financing for companies with significant coal mining activity.	**EUROPE:** BBVA, RBS
B-	**PROJECT EXCLUSION AND PARTIAL COAL MINING PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all coal mining projects, and commits to partially phase out and/or exclude some coal mining companies.	**EUROPE:** BNP Paribas, BPCE/Natixis, Crédit Agricole, ING, Santander, Société Générale
C+	**COAL MINING REDUCTION** Commits to reduce financing for and/or exclude some coal mining companies.	**AUSTRALIA:** ANZ, NAB **EUROPE:** Barclays, Deutsche Bank **UNITED STATES:** Bank of America, Citi, JPMorgan Chase, Morgan Stanley, PNC, US Bank, Wells Fargo

GRADE		BANK
C	**FULL COAL MINING PROJECT EXCLUSION OR MOUNTAINTOP REMOVAL COMPANY EXCLUSION** Prohibits all financing for all coal mining projects or prohibits all financing for producers of mountaintop removal coal.	**EUROPE:** ABN AMRO, Credit Suisse, HSBC, UBS **SINGAPORE:** DBS Bank
C-	**PARTIAL COAL MINING PROJECT EXCLUSION OR MOUNTAINTOP REMOVAL COMPANY EXCLUSION** Prohibits some financing for coal mining projects or prohibits some financing for producers of mountaintop removal coal.	**AUSTRALIA:** Westpac **EUROPE:** Standard Chartered **UNITED STATES:** Goldman Sachs
D+	**COAL MINING DUE DILIGENCE** Has an enhanced due diligence process for transactions related to coal mining, with publicly disclosed due diligence criteria.	**CANADA:** TD
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO COAL MINING** Has a general enhanced due diligence process that covers coal mining-related transactions, such as for mining in general, with publicly disclosed due diligence criteria, or has a coal mining-specific due diligence process without publicly disclosed due diligence criteria.	**AUSTRALIA:** Commonwealth Bank **CANADA:** RBC **EUROPE:** UniCredit
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**CANADA:** Bank of Montreal, CIBC, Scotiabank **JAPAN:** Mizuho, MUFG, SMBC Group **SINGAPORE:** OCBC Bank, UOB
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Coal Power

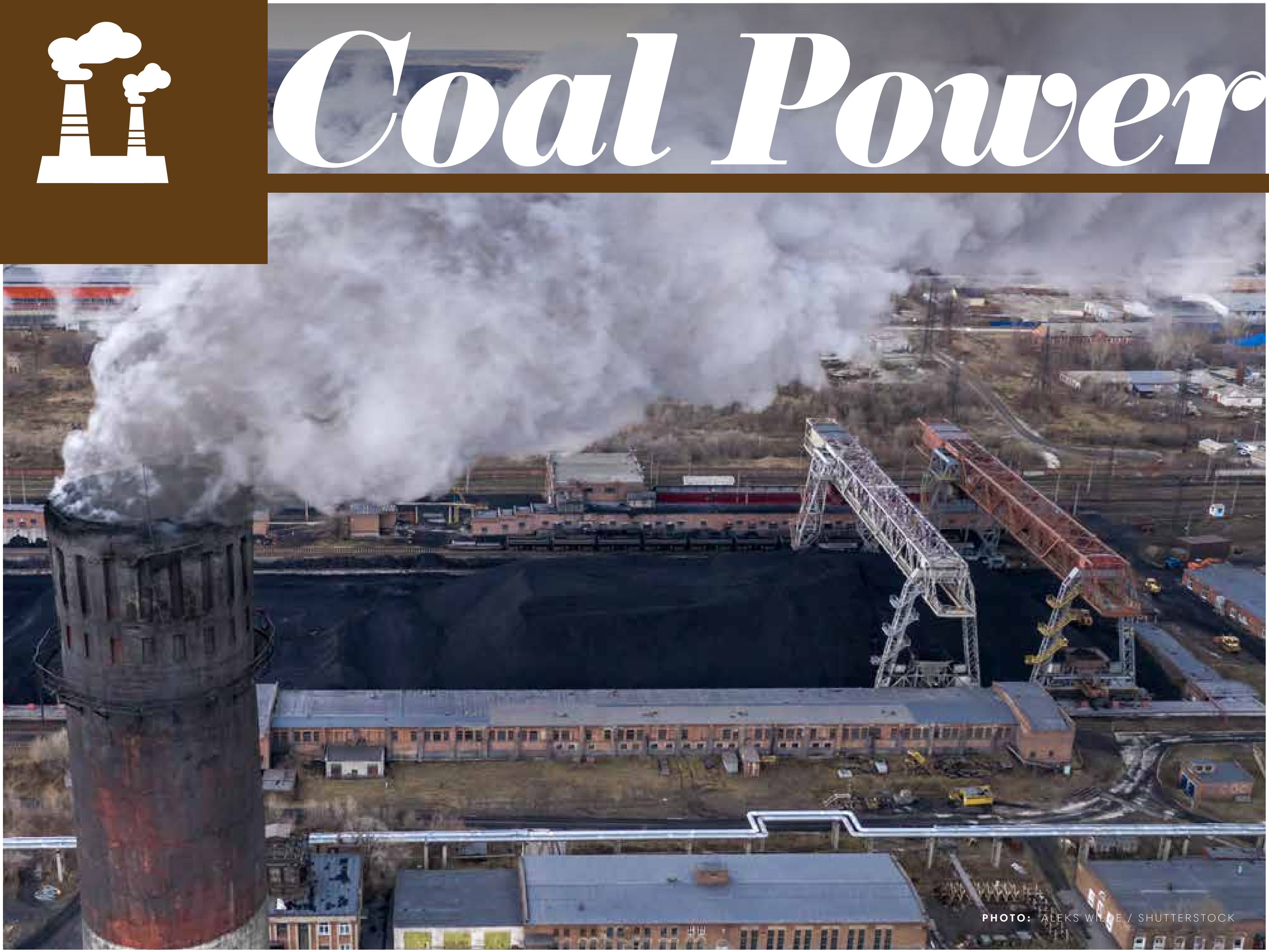
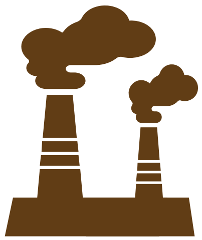


PHOTO: ALEKS WILDE / SHUTTERSTOCK

Coal power financing is also led by the Chinese banks — with **Citi** and **MUFG** as the top non-Chinese bankers of coal power. Policy grades for this subsector show some positive examples of European banks restricting financing for coal power companies.



Worst Banks By Total Coal Power Financing (2016–2018)

BANK		COAL POWER FINANCING	COAL POWER POLICY GRADE
BANK OF CHINA		$16.102 B	F
ICBC		$16.096 B	F
CHINA CONSTRUCTION BANK		$11.697 B	F

Case Study: Beyond China — Japanese Banks' Addiction to Coal

Japan's three largest banks, **MUFG**, **Mizuho**, and **SMBC Group**, are fueling a coal power boom in Japan and abroad. In the remote countryside of southern Japan, a 1.2-gigawatt (GW) coal-fired power plant known as Nishioki No Yama is being developed by J-POWER, Japan's largest coal plant developer and a major recipient of financing from all three banks.[109] It is estimated that this plant will emit 7.9 million tons of CO_2 once completed, and it is only one among 50 new coal power projects in Japan that have been planned since 2012, including three plants in Tokyo Bay.[110] While five projects comprising six units have recently been cancelled or switched to a different fuel source, 15 GW of coal-fired power capacity remain in the pipeline, 6.4 GW of which are not yet under construction.[111] If all of these projects are completed, Japan will be more dependent on coal than on renewables.[112] Most of these domestic coal power projects are being financed by Japan's three megabanks.[113]

MUFG, **Mizuho**, and **SMBC Group** also provide significant funding to coal power projects overseas, notably in Indonesia and Vietnam. All three banks are expected to fund Van Phong 1, a 1.3 GW supercritical coal plant in Vietnam sponsored by Sumitomo Corporation, which is expected to produce SO_2, NOx, and particulate matter emissions at least five times more than most new coal projects in Japan.[114] This plant is planned in addition to the controversial Nghi Son 2, a 1.2 GW coal power plant in Vietnam that is being constructed by Korea Electric Power Company (KEPCO) and Marubeni.[115] The banks' funding of this project is currently the subject of an OECD complaint.[116] **Standard Chartered** appears to have walked away from Nghi Son 2 prior to financial close due to the carbon intensity of the project.[117]

As these cases illustrate, **MUFG**, **Mizuho**, and **SMBC Group** are facilitating the expansion of coal power globally, with no signs of the rapid phase-out that's needed in order to achieve the Paris Agreement goals. This report card found that between 2016 and 2018, these three banks provided a combined $7.4 billion in loans and underwriting services to 30 top global coal power producers, including J-POWER and KEPCO. Research published in December 2018 also found that **MUFG**, **Mizuho**, and **SMBC Group** were the first-, second-, and fourth-largest global lenders to the top 120 international coal developers between 2016 and September 2018.[118] Mizuho has been the leading lender and underwriter to 20 companies rapidly developing coal power in Japan, providing nearly twice as much financing as **MUFG** or **SMBC Group**.[119]

These three banks' financing of coal is in stark contrast to their peers and their own endorsement of the TCFD.[120] While the banks adopted new coal power policies in the last year, they lack any meaningful safeguards against financing climate catastrophe.[121] With the growing impacts of climate change, including in Japan — where heavy rainfall, landslides, and extreme heat in 2018 killed approximately 300 people — the banks' financing of coal power expansion constitutes a significant reputational and financial risk, including a material risk of stranded assets given the drastic decline in the cost of renewables and storage technology.[122] The banks need to adopt a rapid transition plan away from coal and carbon-intensive sectors more broadly, and their largest investors — BlackRock and the Government Pension Investment Fund of Japan — should ensure this happens as quickly as possible.[123]

PHOTO: AYSE GÜRSÖZ / RAN

Banking on Coal Power - League Table

Bank financing for 30 top coal power companies

RANK	BANK	2016	2017	2018	TOTAL
1	BANK OF CHINA	$4.744 B	$4.988 B	$6.369 B	$16.102 B
2	ICBC	$5.196 B	$5.579 B	$5.321 B	$16.096 B
3	CHINA CONSTRUCTION BANK	$5.636 B	$3.188 B	$2.872 B	$11.697 B
4	AGRICULTURAL BANK OF CHINA	$4.340 B	$2.615 B	$2.633 B	$9.588 B
5	CITI	$0.756 B	$1.975 B	$1.666 B	$4.397 B
6	MUFG	$1.425 B	$1.119 B	$971 M	$3.516 B
7	BARCLAYS	$1.077 B	$1.088 B	$1.088 B	$3.253 B
8	MIZUHO	$1.004 B	$884 M	$1.169 B	$3.057 B
9	WELLS FARGO	$673 M	$1.381 B	$983 M	$3.037 B
10	JPMORGAN CHASE	$903 M	$972 M	$1.104 B	$2.979 B
11	BANK OF AMERICA	$882 M	$886 M	$1.029 B	$2.797 B
12	HSBC	$255 M	$973 M	$753 M	$1.981 B
13	UBS	$1.197 B	$441 M	$332 M	$1.970 B
14	MORGAN STANLEY	$711 M	$478 M	$768 M	$1.957 B
15	CREDIT SUISSE	$754 M	$680 M	$494 M	$1.929 B
16	SCOTIABANK	$320 M	$531 M	$632 M	$1.483 B
17	BNP PARIBAS	$330 M	$648 M	$484 M	$1.462 B
18	GOLDMAN SACHS	$391 M	$319 M	$525 M	$1.235 B
19	STANDARD CHARTERED	$65 M	$262 M	$666 M	$993 M
20	RBC	$349 M	$511 M	$45 M	$906 M
21	SMBC GROUP	$19 M	$306 M	$502 M	$827 M
22	SANTANDER	$207 M	$218 M	$200 M	$625 M
23	DEUTSCHE BANK	$293 M	$211 M	$85 M	$589 M
24	TD	$251 M	$168 M	$69 M	$488 M
25	CRÉDIT AGRICOLE	-	$270 M	$191 M	$461 M
26	SOCIÉTÉ GÉNÉRALE	$30 M	$223 M	$107 M	$361 M
27	UNICREDIT	$30 M	$152 M	$46 M	$228 M
28	BBVA	$27 M	$170 M	$20 M	$217 M
29	ING	$30 M	$129 M	$46 M	$205 M
30	BPCE/NATIXIS	-	$23 M	$23 M	$46 M
31	RBS	$30 M	-	-	$30 M
32	CIBC	-	-	-	-
33	BANK OF MONTREAL	-	-	-	-
	GRAND TOTAL	$31.930 B	$31.389 B	$31.196 B	$94.515 B

PHOTO: KAMILPETRAN / SHUTTERSTOCK

Coal Power - Policy Grades

GRADE		BANK
A	**COAL POWER EXCLUSION** Prohibits all financing for all coal power projects and all companies with coal power operations or expansion plans, with public reporting on implementation.	
A-	**EXCLUSION OF COAL POWER EXPANSION AND PHASE-OUT OF ALL SUPPORT** Prohibits all financing for all coal power projects, all financing for companies with coal power expansion plans, and all financing for companies with significant coal power operations,[124] and commits to phase out all financing for all companies with coal power operations, with public reporting on implementation.	
B+	**EXCLUSION OF COAL POWER EXPANSION AND SIGNIFICANT ACTIVITY** Prohibits all financing for all coal power projects, all financing for companies with coal power expansion plans, and all financing for companies with significant coal power operations, with public reporting on implementation.	
B	**EXCLUSION OF COAL POWER EXPANSION OR SIGNIFICANT ACTIVITY** Prohibits all financing for all coal power projects, and either prohibits all financing for companies with coal power expansion plans or prohibits all financing for companies with significant coal power activity.	**EUROPE:** ABN AMRO
B-	**PARTIAL COAL POWER PHASE-OUT AND/OR EXCLUSION** Prohibits all financing for all coal power projects, and commits to phase out some financing for and/or exclude some coal power companies.	**EUROPE:** BNP Paribas, BPCE/Natixis, Crédit Agricole, ING, Société Générale
C+	**COAL POWER PROJECT EXCLUSION, OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS** Prohibits all financing for all coal power projects, or prohibits financing for some projects and some coal power companies.	**AUSTRALIA:** ANZ **EUROPE:** Barclays, BBVA, Deutsche Bank, RBS, Santander, Standard Chartered **UNITED STATES:** PNC, US Bank

GRADE		BANK
C-	**PARTIAL COAL POWER PROJECT EXCLUSION** Prohibits some financing for coal power projects.	**AUSTRALIA:** Westpac **EUROPE:** Credit Suisse, HSBC, UBS **JAPAN:** SMBC Group **SINGAPORE:** DBS Bank, OCBC Bank, UOB **UNITED STATES:** Bank of America, Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley
D+	**COAL POWER DUE DILIGENCE** Has an enhanced due diligence process for transactions related to coal power, with publicly disclosed due diligence criteria.	**EUROPE:** UniCredit **JAPAN:** Mizuho, MUFG
D	**ENHANCED DUE DILIGENCE THAT APPLIES TO COAL POWER** Has a general enhanced due diligence process that covers coal power-related transactions, such as for the electric sector, with publicly disclosed due diligence criteria, or has a coal power-specific due diligence process without publicly disclosed due diligence criteria.	**AUSTRALIA:** Commonwealth Bank **CANADA:** RBC, TD **UNITED STATES:** Wells Fargo
D-	**GENERAL DUE DILIGENCE** Has a general environmental and social due diligence process for corporate financing transactions.	**AUSTRALIA:** NAB **CANADA:** Bank of Montreal, CIBC, Scotiabank
F	**NO POLICY**	**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC

Human Rights

PHOTO: JAKE CONROY / RAN

Climate Change, Human Rights, and Bank Responsibility

Dire Climate Change Impacts

As described in this report's introduction, the conclusions of the IPCC's 2018 special report on the difference between keeping global warming to 1.5°C versus 2°C are alarming. The impacts of global warming already have had destructive effects on world economies, cultures, and societies. The IPCC report shows that climate events will increase at an even faster and more intense rate, underscoring the plight of the world's most vulnerable populations, such as Indigenous peoples.[125]

The World Health Organization (WHO) reports that global warming will cause 250,000 additional deaths per year between 2030 and 2050 solely from malnutrition, malaria, diarrhea, and heat stress. WHO also reported that catastrophic weather events result in 60,000 deaths every year, primarily in non-industrialized countries; that a growing lack of fresh water, exacerbated by global warming, kills 500,000 children every year; and that changes in the planet's temperature and precipitation patterns will impact food production, increasing malnutrition and undernutrition, which are already responsible for 3.1 million deaths each year.[126]

In his 2016 report, John H. Knox, the UN Special Rapporteur on Human Rights and the Environment found that, "in short, climate change threatens the full enjoyment of a wide range of rights, including the rights to life, health, water, food, housing, development and self-determination."[127] Due to the foundational role that the environment holds in Indigenous cultures around the world, it comes as no surprise that 80% of the world's remaining biodiversity is located in Indigenous territories and that Indigenous peoples are impacted first and worst by climate change.[128]

Indigenous peoples are among those for whom rising and acidifying oceans cause a ruinous loss of island habitat, biodiversity, fresh water, cultural identity, and means of subsistence. Catastrophic ice melts, uncontained wildfires, severe storms, droughts, flooding, and landslides affect Indigenous territory and food sovereignty. All of this impacts Indigenous peoples' sacred relationship with lands and waters, as well as Indigenous cultures, traditions, and identity — their very existence as people.

Banks' Accountability for Climate Change

The last two years have seen a strengthened understanding of banks' responsibility for human rights abuses in the course of a debate catalyzed by a controversial paper from the Thun Group of Banks arguing that banks were unable to cause or contribute to human rights violations through their clients.[129] Responses to this paper from the UN Working Group on Business and Human Rights as well as from John Ruggie, past UN Special Rapporteur, affirmed that banks can, by virtue of their financing, contribute to rights abuses committed by their clients, and can also be directly linked in a broader range of cases.[130] The UN's Office of the High Commissioner for Human Rights has further spelled out the factors that would influence when a bank is contributing to human rights violations through its financing, and confirmed that banks are responsible for providing remediation appropriate to their share in the responsibility for the harm when this occurs.[131]

The OECD has set standards for responsible business conduct and established a unique international mechanism to address complaints where companies do not live up to these standards.[132] With regard to climate change, the OECD has investigated human rights abuses in the financing of palm oil plantations that cause deforestation that contributes to climate change.[133] The OECD also has an important and wide-reaching policy encouraging shifts in investment away from the causes of global warming.[134]

So far, several efforts to examine banks' human rights obligations in practice have focused on immediate impacts caused by fossil fuel infrastructure and extraction — the Dakota Access Pipeline's failure to secure free, prior and informed consent and abuse of the right to water, and coal miner Drummond's hiring of paramilitaries in Colombia serve as examples.[135] These and similar cases bring an additional human rights lens to examination of fossil fuel clients' driving of climate change — and the responsibility of banks for financing these destructive endeavors.

Banks' Exposure Via Their Fossil Fuel Clients

The fossil fuel producers most responsible for global warming are well known. Just 100 fossil fuel companies are linked to 71 percent of global industrial emissions since 1988.[140] Efforts to hold these companies accountable promise to implicate the big banks that are supporting their activities. **JPMorgan Chase**, **Wells Fargo**, **Citi**, and **Bank of America** have poured a startling $600 billion into fossil fuels since the signing of the Paris Agreement (see page 7). These same four banks are also some of the top bankers of the companies most committed to expand fossil fuel dependency (see page 22). Given the science of global warming, not only is this immoral, but it means banks are continuing to support clients whose litigation risk is ever growing.

As banks are exposed to human rights and climate risk through their lending and underwriting practices, they are also exposed through their *investments* in fossil fuels. Amazon Watch has documented how **JPMorgan Chase**, for instance, has invested millions in oil companies operating in the Amazon rainforest, including GeoPark, Frontera Energy, and Andes Petroleum. These three companies are exploring or drilling for oil on the territories of Indigenous peoples who have not been properly consulted or have explicitly rejected the presence of oil drilling on their land.[136] One region where expanded oil drilling is proposed is Ecuador's Yasuní National Park, deep in the Amazon rainforest and one of the most biodiverse places in the world.[137] It is also home to the Tagaeri and the Taromenane, Indigenous peoples living in voluntary isolation.[138] Oil drilling in the Amazon has caused localized contamination and public health impacts, deforestation of an ecologically-critical biome, and the violation of the rights of Indigenous peoples under whose land this oil lies.[139] **JPMorgan Chase** and other banks remain shareholders in the oil companies listed above, which intend to expand drilling of Amazon crude.

In a very well-publicized case, the Philippines Commission on Human Rights held a series of hearings in Manila, London, and New York to question the responsibility of 47 big investor-owned fossil fuel companies and cement producers for human rights violations due to climate change.[141] The commission examined allegations "that the human rights of the Filipino people are being adversely impacted by climate change and the top oil producers of the world have contributed, and knowingly continue to contribute, to this phenomenon.[142] Kumi Naidoo, secretary-general of Amnesty International and former head of Greenpeace International, gave testimony, saying, "Knowing what we know about climate change, it is not hard to see that the business model of fossil fuel companies is literally putting our lives and rights in danger. It is time for a reckoning."[143] Commissioner Roberto Cadiz expressed the hope that the inquiry would "help establish clear mechanisms and processes for hearing human rights cases, especially those imbued with extraterritorial obligations ... [and] help to clarify standards for corporate reporting of carbon majors on their activities relating to greenhouse gas emissions, as well as help identify basic rights and duties relative to the impacts of climate change."[144]

There are also a growing number of lawsuits against fossil fuel producers — both on climate change at large, and around particular projects that expand fossil fuels while putting local communities at risk. For instance, in November 2018, the U.S. District Court in Montana ruled in favor of the Indigenous Environmental Network and others in litigation to stop TransCanada's Keystone XL tar sands pipeline. The order overturned the Trump administration's approval of KXL and included an injunction stopping all construction.[145]

The ruling held that approval of KXL violated federal environmental laws in several respects: the Trump administration disregarded prior factual findings that KXL would unjustifiably worsen climate change; there was no adequate survey of Native American cultural resources that would be harmed by the pipeline; and the approval failed to properly analyze the impact of potential oil spills and cumulative greenhouse gas emissions, and also failed to address the effects of current oil prices on the viability of the pipeline project.[146]

States themselves are also filing lawsuits. The #ExxonKnew campaign resulted in lawsuits including *Massachusetts v. Exxon*, where the state attorney general won a case against oil producers, seeking records to probe whether the company misled consumers and investors on the role that fossil fuels play in climate change.[147] Notably, the Union of Concerned Scientists' 2018 Accountability Scorecard found Chevron, ConocoPhillips, and ExxonMobil to be "egregious" in terms of misinformation on climate change.[148]

Demands for Bank Accountability Grow

Civil society is already holding banks accountable for their role in financing climate change. Banks have increasingly been faced with negative publicity, disruptions, and activist resolutions at their annual shareholder meetings, as well as divestment drives by individual depositors and billion-dollar pension and retirement funds.[149] Their branches and headquarters are subjected to public demonstrations by Indigenous peoples, environmentalists, and NGOs objecting to their support of fossil fuels.[150] In their defense of water, territory, and rights, Indigenous peoples continue to mount their resistance against fossil fuel production and infrastructure and include bank divestment campaigns in many of their actions.[151]

The echo of Standing Rock, "water is life," resonates in Indian Country. The Treaty Alliance against Tar Sands Expansion has been signed by 150 First Nations and Tribes in Canada and the United States, and resistance to fracking and pipelines continues to grow.[152] Standing Rock inspired resistance not only on the part of Indigenous peoples but also by civil society and environmentalists globally. It focused public attention not only on Indigenous rights but also bank investment in fossil fuel production and infrastructure. The perception and importance of this movement cannot be underestimated. Many in civil society have been inspired by traditional Indigenous views and practices of considering future generations, and the well-being and territorial integrity of Mother Earth, before the current needs of humans.

Efforts to hold financial institutions legally accountable for damages by clients recently saw an important milestone. In an historic decision, in February 2019, the United States Supreme Court held that the International Finance Corporation (IFC) can be sued and found liable for the pollution of air, land, and water, resulting from the IFC financing of the privately held Tata Mundra Ultra Mega coal-fired power plant in Gujarat, India.[153] The case arose from complaints by Indian fishing communities and farmers who had followed the IFC's complaint procedure via the IFC Ombudsman to no avail.[154]

The growing cataclysmic climate disruptions that threaten the existence of humanity itself appear to have had little or no effect on many banks' single-minded concentration on their bottom lines. This report's finding that banks have increased their funding for fossil fuels since the Paris Agreement reflects that those in charge of these corporations should be more concerned about the well-being of future generations, including their own children and grandchildren, which is so fundamentally tied to the well-being of our Mother Earth. There is little time or use for remorse.

This section of the report notes 16 key companies exposed to potential risk due to human rights and climate liability: Energy Transfer, Drummond, TransCanada, ExxonMobil, Chevron, ConocoPhillips, Shell, BP, Peabody, Total, Saudi Aramco, Gazprom, National Iranian Oil Company, Coal India, Pemex, and CNPC (PetroChina). Banks financing these companies may also find themselves exposed via their clients.[155]

BANK	NUMBER OF KEY COMPANIES FINANCED (2016-2018)	BANK	NUMBER OF KEY COMPANIES FINANCED (2016-2018)
JPMORGAN CHASE	11	CREDIT SUISSE	8
CITI	10	GOLDMAN SACHS	8
BARCLAYS	9	MORGAN STANLEY	8
DEUTSCHE BANK	9	MUFG	8
HSBC	9	SMBC GROUP	8
BANK OF AMERICA	8		

What Banks Must Do

As this report highlights, a number of factors are currently converging, including the special report by the UN Intergovernmental Panel on Climate Change on global warming of 1.5°C, the recommendations of the Task Force on Climate-Related Financial Disclosures, and growing public recognition of both the concrete, present-day impacts of climate change and the solutions necessary to address the climate crisis. These factors underline the urgency of climate change. They are also creating a window in which financial institutions can act.

Banks should immediately halt all financing for the expansion of fossil fuels, as well as for companies and projects that fail to respect human rights, and Indigenous rights in particular. The specific subsectors highlighted in this report remain priority concerns. Banks should commit to aligning their overall fossil fuel policies and practices with the most prudent emissions pathway detailed in the IPCC special report, which calls for emissions to be almost halved by 2030 and effectively reduced to zero by 2050. Banks must disclose financed emissions, per the recommendations of the TCFD, and align these with the IPCC's pathway to staying below a 1.5°C increase in global temperature.

To align their policies and practices with a world that **limits global warming to 1.5°C** and fully **respects human rights**, and **Indigenous rights** in particular, banks must:

- Prohibit all financing for all fossil fuel expansion projects and for companies expanding fossil fuel extraction and infrastructure.
- Commit to phase out all financing for fossil fuel extraction and infrastructure, on an explicit timeline that is aligned with limiting global warming to 1.5°C.
- Prohibit all financing for all projects in tar sands oil, Arctic oil and gas, ultra-deepwater oil and gas, fracked oil and gas, and liquefied natural gas, and all companies with operations or expansion plans in these subsectors.
- Prohibit all financing for all projects in coal mining or coal power, and all companies with operations or expansion plans in these subsectors.
- Fully respect all human rights, particularly the rights of Indigenous peoples, including their rights to their water and lands and the right to free, prior and informed consent, as articulated in the UN Declaration on the Rights of Indigenous Peoples.[156] Prohibit all financing for projects and companies that abuse human rights, including Indigenous rights.

PHOTO: JIRI REZAC / GREENPEACE

Appendix - Companies Included

Top Fossil Fuel Expansion Companies

UPSTREAM OIL & GAS COMPANIES	MILLION METRIC TONS OF CO_2 PROJECTED TO BE PRODUCED BY 2050 FROM PROJECTS REACHING FID FROM 2016-2030	UPSTREAM OIL & GAS COMPANIES	MILLION METRIC TONS OF CO_2 PROJECTED TO BE PRODUCED BY 2050 FROM PROJECTS REACHING FID FROM 2016-2030
GAZPROM	16,132	ROSNEFT	3,731
NATIONAL IRANIAN OIL COMPANY	11,921	EQUINOR (FORMERLY STATOIL)	3,703
ROYAL DUTCH SHELL	9,836	CONOCOPHILLIPS	3,600
EXXONMOBIL	8,163	PIONEER NATURAL RESOURCES	3,531
CHEVRON	7,480	CHINA NATIONAL OFFSHORE OIL CORPORATION (CNOOC)	3,379
SAUDI ARAMCO	7,251	PEMEX	3,305
QATAR PETROLEUM	6,128	NOBLE ENERGY	3,296
BP	5,965	BASRA OIL COMPANY	2,820
EOG RESOURCES	5,761	CIMAREX ENERGY	2,713
PETROBRAS	4,930	CONCHO RESOURCES	2,559
TOTAL	4,656	NOVATEK	2,280
ANADARKO	4,371	CHESAPEAKE ENERGY	2,196
DEVON ENERGY	4,216	KUWAIT PETROLEUM CORPORATION	2,180
ENI	4,087	PETRONAS	2,155
PETROCHINA	3,967	EQT CORPORATION	2,146

Data from Rystad Energy AS provided by Oil Change International, company reporting, and urgewald's Global Coal Exit List and Coal Plant Developers Database.[157]

UPSTREAM OIL & GAS COMPANIES	MILLION METRIC TONS OF CO_2 PROJECTED TO BE PRODUCED BY 2050 FROM PROJECTS REACHING FID FROM 2016-2030	UPSTREAM OIL & GAS COMPANIES	MILLION METRIC TONS OF CO_2 PROJECTED TO BE PRODUCED BY 2050 FROM PROJECTS REACHING FID FROM 2016-2030
CONTINENTAL RESOURCES	2,142	TURKMENGAS	1,486
SOUTHWESTERN ENERGY	2,140	HESS	1,341
ABU DHABI NATIONAL OIL COMPANY	2,080	MURPHY OIL	1,270
ASCENT RESOURCES	2,019	PARSLEY ENERGY	1,246
NATIONAL FUEL GAS	1,937	OIL AND NATURAL GAS CORPORATION (ONGC)	1,231
TOURMALINE OIL	1,837	CRESCENT POINT ENERGY	1,212
SINOPEC (CHINA PETROLEUM & CHEMICAL CORPORATION)	1,814	ARC RESOURCES	1,167
SEVEN GENERATIONS ENERGY	1,788	CHINA NATIONAL PETROLEUM CORPORATION (CNPC)	1,149
CABOT OIL AND GAS	1,729	NORTH OIL COMPANY	1,142
CANADIAN NATURAL RESOURCES	1,710	SONATRACH	1,130
OCCIDENTAL PETROLEUM	1,660	INPEX	1,128
MARATHON OIL	1,635	WPX ENERGY	1,094
DIAMONDBACK ENERGY	1,561	WOODSIDE PETROLEUM	1,094
GULFPORT ENERGY	1,559	RANGE RESOURCES	1,024
REPSOL	1,501	MATADOR RESOURCES	1,014

KEY OIL AND GAS MIDSTREAM EXPANSION COMPANIES	
ALASKA GASLINE DEVELOPMENT CORPORATION	NEXTDECADE
ATLANTIC COAST PIPELINE LLC	PEMBINA
CHENIERE	PHILLIPS 66
ENBRIDGE	PLAINS ALL AMERICAN
EQT MIDSTREAM	TRANS ADRIATIC PIPELINE (TAP)
ENERGY TRANSFER (FORMERLY ENERGY TRANSFER PARTNERS)	TRANSPORTADORA DE GAS DEL SUR (TGS)
KINDER MORGAN	TRANSCANADA
MAGELLAN MIDSTREAM	

TOP COAL MINING COMPANIES WITH EXPANSION PLANS	
COAL INDIA	SIBERIAN COAL ENERGY COMPANY (SUEK)
DATONG COAL MINE GROUP	SHANXI COKING COAL GROUP
CHINA NATIONAL COAL GROUP	JIZHONG ENERGY GROUP
SHAANXI COAL AND CHEMICAL INDUSTRY GROUP	HENAN ENERGY AND CHEMICAL INDUSTRY GROUP
YANKUANG GROUP	ANGLO AMERICAN

KEY COAL POWER EXPANSION COMPANIES	COAL POWER EXPANSION PLANS (MEGAWATTS)
NATIONAL ENERGY INVESTMENT GROUP	42,792
NTPC LIMITED	29,700
CHINA HUADIAN	29,130
ELEKTRIK ÜRETIM A.S. GENEL MÜDÜRLÜGÜ (EÜAS)	15,370
KOREA ELECTRIC POWER CORPORATION (KEPCO)	12,030
PERUSAHAAN LISTRIK NEGARA (PLN)	10,342
J-POWER (ELECTRIC POWER DEVELOPMENT COMPANY)	8,845
POWER FINANCE CORPORATION	8,000
ELECTRICITY GENERATING AUTHORITY OF THAILAND (EGAT)	7,650
VIETNAM ELECTRICITY CORPORATION (EVN)	7,440
ESKOM	6,352
GCM RESOURCES	6,000
ERDENES MONGOL	5,980
POLSKA GRUPA ENERGETYCZNA (PGE)	5,260
TAIWAN POWER COMPANY (TAIPOWER)	3,600

Top Tar Sands Companies

RANK	COMPANY	TAR SANDS RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)	RANK	COMPANY	TAR SANDS RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)
1	SUNCOR ENERGY	8,175.62	519.65	19	CONNACHER OIL AND GAS	367.57	109.45
2	CANADIAN NATURAL RESOURCES	7,042.37	1,398.95	20	PTT EXPLORATION AND PRODUCTION	-	432.21
3	CENOVUS ENERGY	6,371.27	1,248.55	21	ROYAL DUTCH SHELL	301.53	58.58
4	EXXONMOBIL	4,008.20	665.99	22	SINOPEC (CHINA PETROLEUM &	350.67	-
5	MEG ENERGY	1,405.28	855.69		CHEMICAL CORPORATION)		
6	TOTAL	1,488.30	360.77	23	BLACK PEARL RESOURCES	4.24	278.46
7	IMPERIAL OIL	1,342.05	290.89	24	PARAMOUNT RESOURCES	-	258.25
8	CHINA NATIONAL OFFSHORE OIL	1,398.37	197.72	25	PENGROWTH ENERGY CORPORATION	123.19	91.57
	CORPORATION (CNOOC)			26	KOREA NATIONAL OIL CORPORATION	135.42	73.77
9	ATHABASCA OIL CORPORATION	507.88	1,062.28	27	JAPAN PETROLEUM EXPLORATION	133.71	-
10	DEVON ENERGY	673.96	442.67		COMPANY LIMITED (JAPEX)		
11	CONOCOPHILLIPS	752.19	352.66	28	VALUE CREATION	-	82.51
12	HUSKY ENERGY	653.63	233.59	29	SOUTHERN PACIFIC RESOURCE	-	65.07
13	PETROCHINA	368.4	497.15	30	PROSPER PETROLEUM	-	46.92
14	BP	421	429.48		ENBRIDGE	KEY TAR SANDS PIPELINE COMPANY	
15	SUNSHINE OILSANDS	142.96	626.29		KINDER MORGAN	KEY TAR SANDS PIPELINE COMPANY	
16	CHEVRON	603.06	117.16		PLAINS ALL AMERICAN PIPELINE	KEY TAR SANDS PIPELINE COMPANY	
17	OSUM OIL SANDS CORPORATION	172.96	471.09		TRANSCANADA	KEY TAR SANDS PIPELINE COMPANY	
18	TECK RESOURCES LIMITED	638.18	-				

Data from Rystad Energy AS, with reserves data as of October 2018. Provided by Oil Change International.

* Projected expansion refers to reserves expected to be produced by 2050 from projects reaching final investment decision from 2016–2030.

Top Arctic Oil & Gas Companies

RANK	COMPANY	ARCTIC RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)	RANK	COMPANY	ARCTIC RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)
1	GAZPROM	54,237.34	23,916.46	16	SILK ROAD FUND	564.95	-
2	NOVATEK	8,806.76	5,062.45	17	ZARUBEZHNEFT	419.13	26.87
3	ROSNEFT	7,690.88	1,508.39	18	PETROVIETNAM	334.88	51.15
4	LUKOIL	3,444.43	-	19	NORILSK MINING	325.29	-
5	CONOCOPHILLIPS	2,578.15	698.17	20	YARGEO	303.38	-
6	WINTERSHALL	2,083.78	596.36	21	OIL INDIA	251.10	-
7	OMV	1,193.05	625.91	22	INDIAN OIL	251.10	-
8	EQUINOR (FORMERLY STATOIL)	1,112.40	696.65	23	BHARAT PETROLEUM CORPORATION (BPCL)	243.30	-
9	TOTAL	1,406.58	393.91				
10	EXXONMOBIL	1,443.40	1.98	24	REPSOL	0.02	242.67
11	BP	1,102.39	174.10	25	HILCORP ENERGY	156.05	48.76
12	CHINA NATIONAL PETROLEUM CORPORATION (CNPC)	1,141.32	-	26	NEPTUNE ENERGY	149.98	23.44
				27	LUNDIN PETROLEUM	-	157.53
13	PETORO	531.95	326.71	28	BASHNEFT	156.91	-
14	OIL AND NATURAL GAS CORPORATION (ONGC)	811.01	-	29	INDEPENDENT PETROLEUM COMPANY (NNK)	151.16	-
15	ENI	502.90	204.62	30	IDEMITSU	-	143.92

Data from Rystad Energy AS, with reserves data as of October 2018. Provided by Oil Change International.

* Projected expansion refers to reserves expected to be produced by 2050 from projects reaching final investment decision from 2016–2030.

Top Ultra-Deepwater Oil & Gas Companies

RANK	COMPANY	ULTRA-DEEPWATER RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)	RANK	COMPANY	ULTRA-DEEPWATER RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)
1	PETROBRAS	10,748.11	8,727.35	18	PETROCHINA	170.70	750.60
2	ROYAL DUTCH SHELL	3,708.62	3,989.82	19	REPSOL	323.94	595.26
3	EXXONMOBIL	901.29	5,205.70	20	BHP (FORMERLY BHP BILLITON)	343.06	558.12
4	BP	1,433.55	3,783.76	21	PEMEX	-	742.88
5	TOTAL	987.13	3,044.35	22	CHINA NATIONAL PETROLEUM CORPORATION (CNPC)	81.74	629.40
6	EQUINOR (FORMERLY STATOIL)	751.65	2,565.76				
7	CHINA NATIONAL OFFSHORE OIL CORPORATION (CNOOC)	618.02	1,929.93	23	EMPRESA NACIONAL DE HIDROCARBONETOS (ENH)	85.35	568.00
8	ENI	291.00	2,148.84	24	OIL AND NATURAL GAS CORPORATION (ONGC)	62.07	532.12
9	DELEK GROUP	1,016.51	884.70				
10	CHEVRON	593.57	1,235.67	25	ENERGEAN OIL & GAS	514.37	-
11	NOBLE ENERGY	938.30	868.49	26	KOREA GAS	85.35	375.30
12	SONANGOL	350.07	1,419.19	27	RATIO OIL EXPLORATION	274.16	178.35
13	GALP ENERGIA	714.33	995.06	28	ISRAMCO NEGEV 2 LP	245.43	187.25
14	HESS	149.77	1,221.11	29	ROSNEFT	-	274.95
15	ANADARKO	219.83	901.92	30	NIGERIAN NATIONAL PETROLEUM CORPORATION (NNPC)	59.61	196.20
16	SINOPEC	480.05	583.35				
17	KOSMOS ENERGY	38.40	908.65				

Data from Rystad Energy AS, with reserves data as of October 2018. Provided by Oil Change International.

* Projected expansion refers to reserves expected to be produced by 2050 from projects reaching final investment decision from 2016–2030.

Top Fracked Oil & Gas Companies

* Projected expansion refers to undeveloped shale oil and gas reserves projected to be produced between 2018 and 2050.

RANK	COMPANY	FRACKING RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)	RANK	COMPANY	FRACKING RESERVES CURRENTLY UNDER PRODUCTION (MILLIONS OF BARRELS)	PROJECTED EXPANSION* (MILLIONS OF BARRELS)
1	EOG RESOURCES	2,004.96	12,590.87	22	RANGE RESOURCES	1,037.06	3,450.96
2	ROYAL DUTCH SHELL	1,208.50	11,918.57	23	EQUINOR (FORMERLY STATOIL)	802.17	3,657.71
3	DEVON ENERGY	1,337.20	9,244.20	24	SOUTHWESTERN ENERGY	1,490.79	2,959.41
4	CHEVRON	1,061.72	9,379.89	25	SINOPEC	620.39	3,357.57
5	EQT CORPORATION	3,461.10	6,695.93	26	DIAMONDBACK ENERGY	405.06	3,541.75
6	ANADARKO	1,218.73	8,768.62	27	ARC RESOURCES	383.33	3,442.23
7	EXXONMOBIL	1,885.29	7,780.33	28	OCCIDENTAL PETROLEUM	552.53	2,856.00
8	PIONEER NATURAL RESOURCES	947.85	8,399.74	29	MURPHY OIL	377.69	2,931.49
9	CONCHO RESOURCES	1,014.73	6,538.11	30	PARSLEY ENERGY	298.68	2,991.03
10	CHESAPEAKE ENERGY	1,679.37	5,620.37		ATLANTIC COAST PIPELINE LLC	KEY PIPELINE COMPANY	
11	NOBLE ENERGY	764.11	6,429.05		ENERGY TRANSFER	KEY PIPELINE COMPANY	
12	CIMAREX ENERGY	822.97	6,224.22		ENTERPRISE PRODUCTS	KEY PIPELINE COMPANY	
13	CONOCOPHILLIPS	907.94	5,813.69		EQM MIDSTREAM PARTNERS	KEY PIPELINE COMPANY	
14	ASCENT RESOURCES	979.97	5,425.46		KINDER MORGAN	KEY PIPELINE COMPANY	
15	CABOT OIL AND GAS	1,373.45	4,887.24		MAGELLAN MIDSTREAM	KEY PIPELINE COMPANY	
16	CONTINENTAL RESOURCES	1,103.99	5,034.29		PHILLIPS 66	KEY PIPELINE COMPANY	
17	TOURMALINE OIL	699.63	4,947.92		PLAINS ALL AMERICAN PIPELINE	KEY PIPELINE COMPANY	
18	NATIONAL FUEL GAS	386.75	5,019.88		TRANSPORTADORA DE GAS DEL SUR	KEY PIPELINE COMPANY	
19	GULFPORT ENERGY	876.35	4,106.02		WILLIAMS COMPANIES	KEY PIPELINE COMPANY	
20	SEVEN GENERATIONS ENERGY	392.53	4,376.25				
21	MARATHON OIL	873.85	3,889.82				

Data from Rystad Energy AS, with reserves data as of October 2018. Provided by Oil Change International.

Top LNG Companies

RANK	COMPANY	OPERATING LNG IMPORT AND EXPORT CAPACITY (ATTRIBUTABLE MILLION METRIC TONS PER ANNUM)	PROPOSED* LNG IMPORT AND EXPORT CAPACITY (ATTRIBUTABLE MILLION METRIC TONS PER ANNUM)	RANK	COMPANY	OPERATING LNG IMPORT AND EXPORT CAPACITY (ATTRIBUTABLE MILLION METRIC TONS PER ANNUM)	PROPOSED* LNG IMPORT AND EXPORT CAPACITY (ATTRIBUTABLE MILLION METRIC TONS PER ANNUM)
1	KOGAS	121.18	4.52	15	STEWART ENERGY GROUP LTD	-	30.00
2	QATAR PETROLEUM	63.41	34.32	16	TOKYO GAS	26.29	2.94
3	ROYAL DUTCH SHELL	45.54	31.65	17	NEXTDECADE LLC	-	29.22
4	EXXONMOBIL	25.55	34.55	18	GAZPROM	5.40	22.83
5	TOKYO ELECTRIC POWER COMPANY	54.50	-	19	TELLURIAN INVESTMENTS	-	27.60
	(TEPCO)			20	KUWAIT PETROLEUM CORPORATION	5.40	22.00
6	CHINA NATIONAL OFFSHORE OIL	31.86	21.33	21	NOVATEK	5.51	21.70
	CORPORATION (CNOOC)			22	CHUBU ELECTRIC	26.57	0.02
7	CHENIERE ENERGY	18.00	32.00	23	OSAKA GAS	22.01	3.77
8	PETRONAS	39.48	10.25	24	SONATRACH	25.57	-
9	NIGERIAN NATIONAL PETROLEUM	10.92	37.81	25	CHEVRON	17.70	7.46
	CORPORATION (NNPC)			26	PETRONET LNG	22.50	2.60
10	NATIONAL IRANIAN OIL COMPANY	-	41.39	27	EXCELERATE ENERGY	12.80	12.10
	(NIOC)			28	ORCA LNG	-	24.00
11	ENAGAS	36.56	-	29	STEELHEAD LNG	-	24.00
12	SEMPRA ENERGY	7.50	28.28	30	SINOPEC (CHINA PETROLEUM &	11.25	9.00
13	TOTAL	15.48	16.93		CHEMICAL CORPORATION)		
14	VENTURE GLOBAL LNG	-	30.80				

Data as of September 2018, based on Bloomberg New Energy Finance data

* Proposed capacity includes projects announced, planning a final investment decision, or under construction or review.

Top Coal Mining Companies

RANK	COMPANY	ANNUAL COAL PRODUCTION (MILLION METRIC TONS)	EXPANSION PLANS?	RANK	COMPANY	ANNUAL COAL PRODUCTION (MILLION METRIC TONS)	EXPANSION PLANS?
1	COAL INDIA	538.8	YES	16	ARCH COAL	91.7	YES
2	NATIONAL ENERGY INVESTMENT	510.0		17	KAILUAN GROUP	90.5	YES
	GROUP (FORMERLY SHENHUA			18	RWE	86.5	
	GROUP AND CHINA GUODIAN			19	BUMI RESOURCES	83.3	
3	CORPORATION)	171.6	YES	20	CHINA HUANENG GROUP	82.0	YES
4	DATONG COAL MINE GROUP	167.0			ENERGETICKÝ A PRUMYSLOVÝ HOLDING		
5	CHINA NATIONAL COAL GROUP	159.3		21	(EPH)	77.0	YES
6	PEABODY ENERGY	133.7	YES	22	BHP (FORMERLY BHP BILLITON)	76.0	
7	SHANDONG ENERGY GROUP	126.0	YES	23	YANGQUAN COAL INDUSTRY GROUP	74.3	
	SHAANXI COAL AND CHEMICAL				SHANXI LU'AN MINING INDUSTRY GROUP		
8	INDUSTRY GROUP	124.9	YES[158]	24	STATE POWER INVESTMENT	73.7	YES
9	GLENCORE	109.0	YES		CORPORATION		
10	YANKUANG GROUP	105.4	YES	25	SHANXI JINCHENG ANTHRACITE MINING	70.4	YES
	SIBERIAN COAL ENERGY COMPANY				GROUP		
11	(SUEK)	105.4	YES	26	JINNENG GROUP	70.4	YES
12	SHANXI COKING COAL GROUP	101.8	YES	27	HUAINAN MINING INDUSTRY GROUP	70.0	YES
13	JIZHONG ENERGY GROUP	101.6	YES	28	NLC INDIA	30.6	YES
	HENAN ENERGY AND CHEMICAL			29	CHINA HUADIAN	43.5	
14	INDUSTRY GROUP	94.8	YES	30	SHAANXI YULIN ENERGY GROUP	20.9	
15	ANGLO AMERICAN	93.3					

Data from urgewald's Global Coal Exit List (including a forthcoming update).

Top Coal Power Companies

RANK	COMPANY	INSTALLED COAL POWER CAPACITY (MEGAWATTS)	COAL POWER EXPANSION PLANS (ATTRIBUTABLE MEGAWATTS)
1	CHINA HUANENG GROUP	117,967	23,070
2	NATIONAL ENERGY INVESTMENT GROUP (FORMERLY SHENHUA GROUP AND CHINA GUODIAN CORPORATION)	88,165	37,837
3	CHINA HUADIAN	91,002	25,097
4	CHINA DATANG	91,029	18,272
5	STATE POWER INVESTMENT CORPORATION	69,191	21,763
6	NTPC LIMITED	38,095	25,056
7	SHAANXI COAL AND CHEMICAL INDUSTRY GROUP	45,941	6,030
8	ESKOM	36,441	6,352
9	KOREA ELECTRIC POWER CORPORATION (KEPCO)	32,035	6,768
10	CHINA RESOURCES POWER HOLDINGS	29,815	8,184
11	ZHEJIANG PROVINCIAL ENERGY GROUP	26,270	2,366
12	GUANGDONG YUDEAN GROUP	22,710	3,320
13	SHANDONG WEIQIAO PIONEERING GROUP	16,895	4,240
14	RWE	18,319	1,100
15	SOUTHERN COMPANY	19,141	-
16	ELEKTRIK ÜRETIM A.S. GENEL MÜDÜRLÜGÜ (EÜAS)	3,159	15,370
17	POLSKA GRUPA ENERGETYCZNA (PGE)	13,083	5,260
18	DATONG COAL MINE GROUP	15,460	2,600
19	DUKE ENERGY	17,958	-
20	DTEK BV GROUP	17,523	-
21	ANHUI PROVINCE ENERGY GROUP	11,430	4,970
22	ENEL	16,103	110

Data from urgewald's Global Coal Exit List (including a forthcoming update) and 2018 Coal Plant Developers List.[159]

RANK	COMPANY	INSTALLED COAL POWER CAPACITY (MEGAWATTS)	COAL POWER EXPANSION PLANS (ATTRIBUTABLE MEGAWATTS)
23	J-POWER (ELECTRIC POWER DEVELOPMENT COMPANY)	9,480	6,543
24	PERUSAHAAN LISTRIK NEGARA (PLN)	14,996	490
25	BEIJING ENERGY INVESTMENT HOLDING	11,360	3,777
26	HEBEI CONSTRUCTION & INVESTMENT GROUP	13,100	2,000
27	STATE DEVELOPMENT AND INVESTMENT CORPORATION (SDIC)	11,756	2,670
28	VIETNAM ELECTRICITY CORPORATION (EVN)	9,088	5,319
29	AMERICAN ELECTRIC POWER (AEP)	14,318	-
30	TAIWAN POWER COMPANY (TAIPOWER)	10,697	3,600

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20 Note that this method effectively undercounts figures in the league table for fossil fuel expansion, as the adjuster is based on current operations while these companies are highlighted because of their large fossil fuel expansion plans that have yet to be developed.

21 Due to the nature of the Rystad database, for any companies that are new to this year's analysis — such as the fracked oil and gas companies and many of the Arctic oil and gas companies — the adjuster is calculated based on reserves data for 2018 and applied to the data for all three years.

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This report is endorsed by 163 organizations from around the world:

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