

# Assessing International Public Finance for Energy in Africa:

## Where Do Development and Climate Priorities Stand?



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Cover Image: Hybrid solar PV diesel mini-grids for 32 villages in Mali. Photo courtesy of Agency for the Development of Domestic Energy and Rural Electrification (AMADER), CC BY-NC-ND 2.0. July, 2018.

Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the coming transition towards clean energy.

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# 4 Key Institutions Analyzed

## **CHINA**

China Development Bank	CDB
China Export and Credit Insurance Corporation	Sinosure
Export-Import Bank of China	Chexim

## **GERMANY**

Euler Hermes	
Deutsche Investitions- und Entwicklungsgesellschaft	DEG
KfW IPEX-Bank	KfW IPEX
Kreditanstalt fuer Wiederaufbau	KfW

## **FRANCE**

Agence Française de Développement	AFD
Compagnie Française d'Assurance pour le Commerce Extérieur	COFACE
Proparco	PROPARCO

## **ITALY**

Cassa Depositi e Prestiti	CDP
Servizi Assicurativi del Commercio Estero	SACE

## **JAPAN**

Japan Bank for International Cooperation	JBIC
Japan International Cooperation Agency	JICA
Nippon Export and Investment Insurance	NEXI

## **KOREA**

Export-Import Bank of Korea	Kexim
Korea Development Bank	KDB
Korea International Cooperation Agency	KOICA
Korea Trade Insurance Corporation	KSURE

## **MULTILATERAL DEVELOPMENT BANKS**

African Development Bank	MDBs
European Bank for Reconstruction and Development	AfDB
European Investment Bank	EBRD
Islamic Development Bank	EIB
New Development Bank	IsDB
World Bank Group	NDB
	WBG

## **NETHERLANDS**

Netherlands Development Finance Company	FMO
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## **REGIONAL DEVELOPMENT BANKS**

Development Bank of Southern Africa	DBSA
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## **SWEDEN**

AB Svensk Exportkredit	SEK
Swedfund International AB	Swedfund
Swedish Export Credit Agency	EKN
Swedish International Development Cooperation Agency	SIDA
Swedish Ministry for Foreign Affairs	SwedishMFA

## **UNITED KINGDOM**

CDC Group Plc	CDC
Department for International Development	DFID
UK Export Finance	UKEF

## **UNITED STATES**

Export-Import Bank of the United States	U.S. EXIM
Overseas Private Investment Corporation	OPIC

In Africa, the energy challenge has multiple dimensions. Energy infrastructure will have to address urgent development needs as well as resilience to the climate crisis. Achieving universal access to energy by 2030, as set out in the UN Sustainable Development Goals, will require a significant scale up of investment in energy infrastructure – and particularly in distributed renewable energy.

This report aims to provide a picture of the public finance flowing to energy infrastructure in Africa from fiscal years 2014 through 2016. The report covers development finance institutions including multilateral development banks, as well as the national development banks and export credit agencies of the countries providing the most public finance to energy in Africa. It assesses hundreds of transactions over this period collected in the Shift the Subsidies Database maintained by Oil Change International.

The following presents the key questions and findings explored in this report.

## WHICH TYPES OF ENERGY INFRASTRUCTURE RECEIVED SUPPORT?

- ◆ **Nearly 60 percent of public finance for energy in Africa went to fossil fuels** – an annual average of USD 11.7 billion. Public finance for oil and gas was nearly eight times greater than public finance for coal-fired power generation.
- ◆ **Clean energy projects received 18 percent of public energy finance** (not including large hydropower). Roughly a third of this clean energy finance went to financial intermediaries – including banks, funds or facilities – to support renewable energy.

## WHO WERE THE LARGEST PROVIDERS OF PUBLIC FINANCE FOR ENERGY IN AFRICA?

- ◆ **China provided the largest volumes of public finance out of all the institutions and countries considered in this report** – averaging about USD 5.1 billion per year out of USD 19.8 billion per year in total public energy finance in Africa. Nearly three quarters of Chinese finance went toward upstream oil and gas infrastructure, while about 13 percent went toward coal-fired power generation. The Chinese institutions assessed in this report did not appear to finance any renewable energy in Africa over the period assessed, which stands out given the global dominance of China's wind and solar industries.
- ◆ **The World Bank Group (WBG) was the second-largest provider of public finance for energy in Africa by total volume.** While the WBG financed mostly fossil fuel infrastructure over this period, its fossil fuel lending is expected to decrease following the bank's announcement that it will end finance for upstream oil and gas starting in 2019.<sup>1</sup>

- ◆ **Japan provided the third-most public finance for energy in Africa over this period, half of which went to clean energy.** (This proportion of clean energy finance contrasts with Japan's global public finance for energy, which has historically been dominated by fossil fuels.) Japan's high levels of support for renewable energy in Africa suggest that there are opportunities for other public finance providers to significantly scale up their support for clean energy. However, Japan is still providing support for coal-fired power, including USD 1.4 billion for a coal-fired power plant and USD 238 million for a coal port over this period.

## HOW WAS THE FINANCE DISTRIBUTED AMONG COUNTRIES?

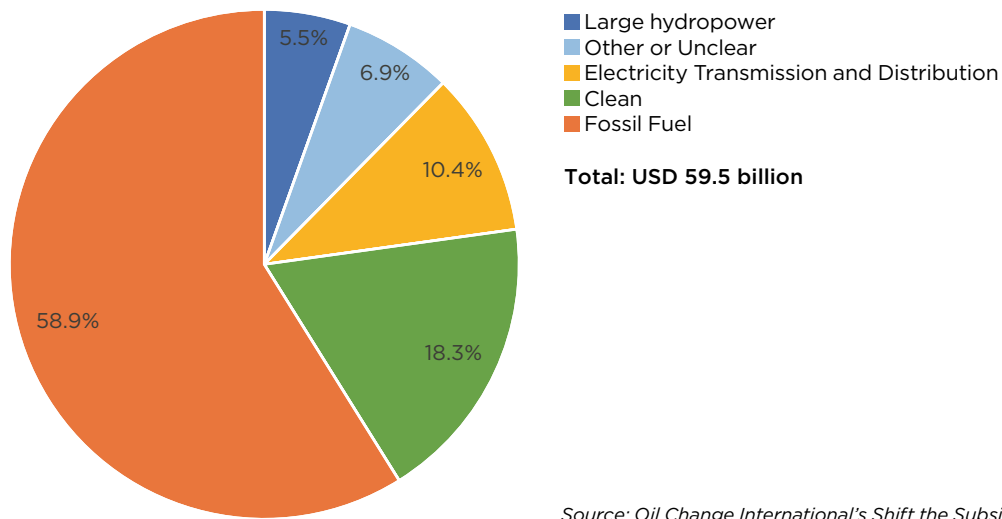
- ◆ **Public finance flows for energy are unevenly distributed across countries.** Three countries – Egypt, Angola, and South Africa – received nearly half of the USD 59.5 billion in public finance for energy across the continent from 2014 to 2016.

## HOW ARE CLIMATE AND DEVELOPMENT PRIORITIES REFLECTED IN PUBLIC FINANCE FLOWS?

- ◆ An estimated 11 percent of public finance for energy in Africa during this three-year period went to support energy access. Of public finance for fossil fuels, only 4 percent went to support energy access. **Less than 2 percent of all public finance for energy in Africa during this period supported distributed renewable energy solutions.** This proportion is exceedingly small compared to estimates of the level of investment needed to achieve universal energy access by 2030, as enshrined in the UN Sustainable Development Goals.
- ◆ **Much of the bilateral public finance for energy in Africa supports the commercial interests of the countries providing the finance.** In part, this is because a significant volume of the finance assessed in this analysis comes from export credit agencies, which aim to support home-country companies to secure business overseas. For example, German conglomerate Siemens is involved in a number of the gas-fired power plants supported by German public finance in Africa between 2014 and 2016, including the 4,400 MW Beni Suef gas-fired power plants in Egypt and the Azura-Edo gas-fired power plant in Nigeria. This raises questions about what role international public finance should play in supporting the development of local industries and companies in Africa. From a standpoint of equity, wealthier countries have a responsibility to support the energy transition in Africa – both at a government and community level – in a way that responds to urgent development needs.

**OVER HALF OF PUBLIC FINANCE WENT TO FOSSIL FUELS.**

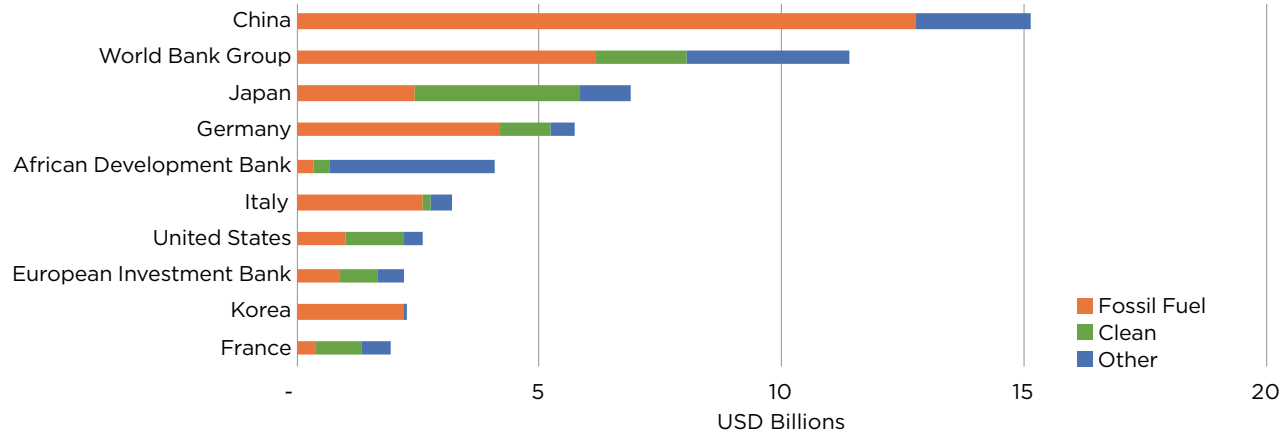
**Figure 1: Total Public Finance for Africa's Energy Sector, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

**CHINA, THE WORLD BANK GROUP, AND JAPAN PROVIDED THE LARGEST VOLUMES OF PUBLIC FINANCE TO ENERGY IN AFRICA OVER THE THREE-YEAR PERIOD.**

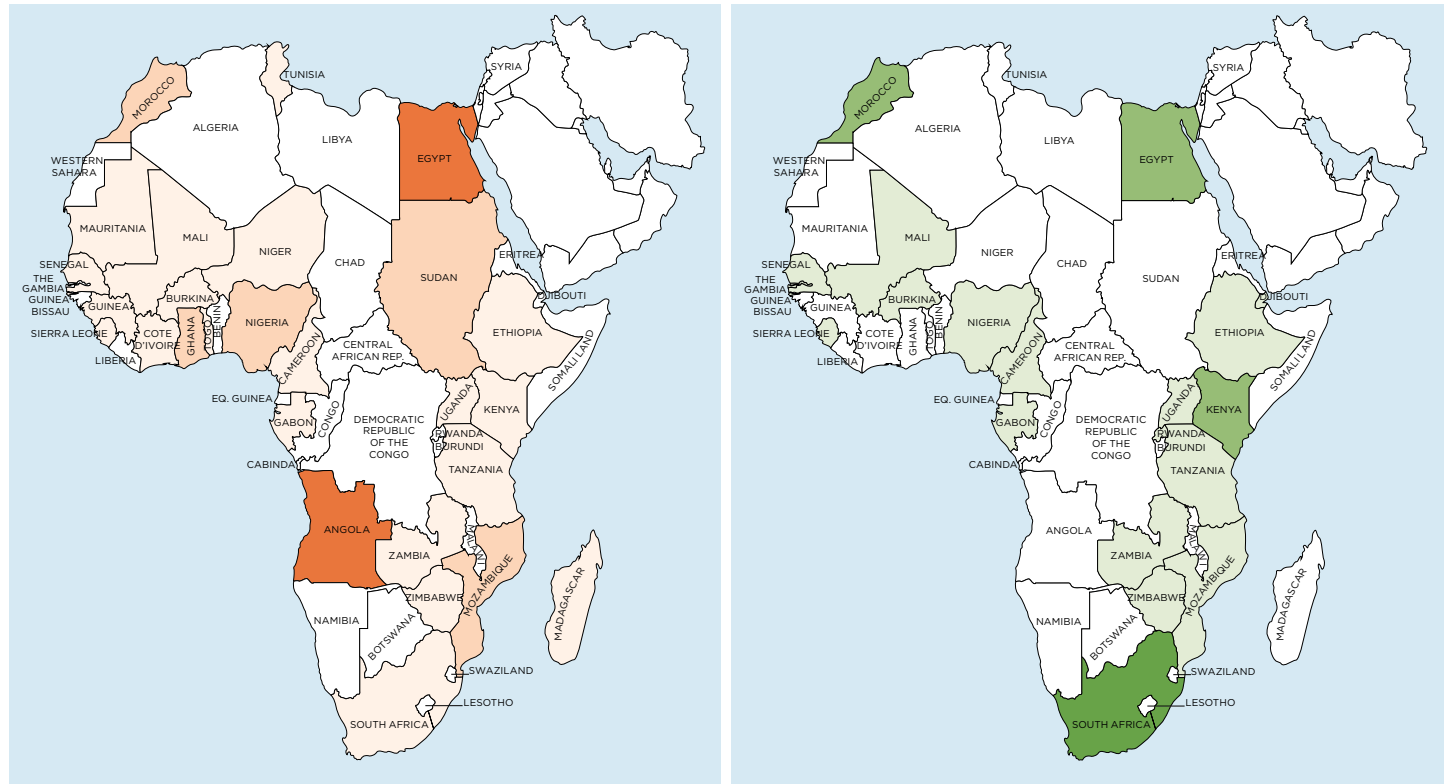
**Figure 2: Largest Providers of Public Finance for Africa's Energy Sector, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

**EGYPT AND ANGOLA RECEIVED THE MOST FOSSIL FUEL FINANCE, WHILE SOUTH AFRICA AND KENYA RECEIVED THE MOST CLEAN ENERGY FINANCE.**

**Figure 3: Distribution of Public Finance for Energy across African Countries, FY 2014 to 2016**



**FOSSIL FUEL INVESTMENT (USD)**

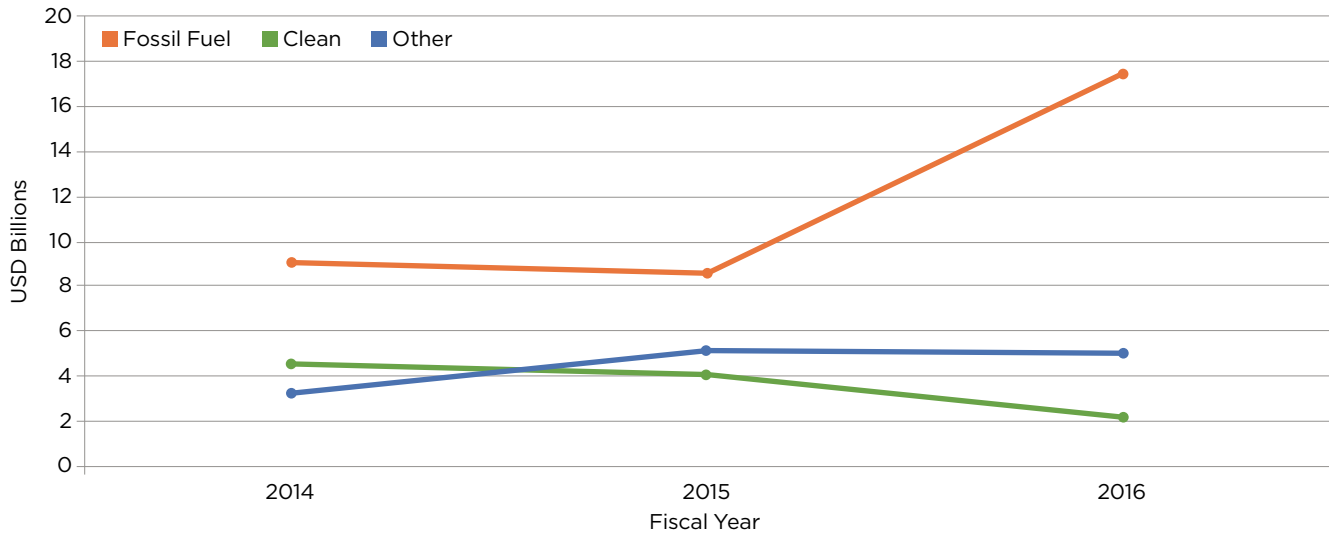
- 0.0009 - 1 billion
- 1.1 - 2 billion
- 2.1 - 3 billion
- 3.1 - 4 billion
- 4.1 - 5 billion
- 5.1 - 6 billion
- 6.1 - 7 billion
- 7.1 - 8 billion
- 8.1 - 9 billion
- 9.1 - 10 billion

**CLEAN ENERGY INVESTMENT (USD)**

- 0.02 - 1 billion
- 1.1 - 2 billion
- 2.1 - 3 billion
- 3.1 - 4 billion

Source: Oil Change International's Shift the Subsidies Database

**Figure 4: Public Finance Approvals for Africa's Energy Sector, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

In Africa, the energy challenge has multiple dimensions. Achieving universal access to affordable, reliable, sustainable, and modern energy by 2030, as set out in the UN Sustainable Development Goals, will require a significant scale up of investment in energy infrastructure – and particularly in distributed renewable energy. Investing in sustainable infrastructure is crucial to ensure energy security and to respond to the effects of climate change that are already being felt in African countries. At the same time, these investments must avoid exacerbating the severity of the climate crisis. Climate change will have disproportionate effects in many countries in Africa, with the poorest and most vulnerable communities experiencing the most severe consequences.

Millions of people in Africa still live in poverty, mostly in highly unequal societies, without adequate access to energy for basic services and to power economic opportunities. To achieve universal electricity access by 2030, the International Energy Agency's 2017 Energy

for All scenario indicates that more than 78 percent of new connections would come from renewable energy sources and 67 percent of total energy investment in sub-Saharan Africa would be in off-grid and mini-grid solutions (about USD 22 billion per year on average).<sup>2</sup>

Where and how governments choose to spend public financial resources will be crucial to success in serving urgent development needs and building resilience to the climate crisis.

This report aims to provide a picture of the public finance flowing to energy infrastructure in Africa from fiscal years 2014 through 2016. The report covers development finance institutions including multilateral development banks, as well as the national development banks and export credit agencies of the countries providing the most public finance to energy in Africa. The researchers assess the amounts of finance by source, the types of energy infrastructure supported, and the countries and institutions receiving the finance.

The report is divided into four sections designed to assess how international public finance is influencing energy development in Africa:

- ❶ Section 1 provides a brief summary of overarching trends in public finance for energy across Africa.
- ❷ Section 2 provides a brief overview of the countries receiving different types and amounts of public finance.
- ❸ Section 3 highlights the major non-African bilateral providers of public finance to energy on the continent.
- ❹ Section 4 summarizes the finance flows to energy in Africa from multilateral development finance institutions.

This report relies primarily on analysis of public finance transactions in the Oil Change International (OCI) Shift the Subsidies database, supplemented by secondary research and news media.

Workers maintain a thermal power station in Ghana. Credit: Jonathan Ernst/World Bank





The data used in this analysis is from Oil Change International's Shift the Subsidies database. The database sources information on public finance transactions in energy from institutional databases (when available), news and press releases, annual reports, and subscription database IJ Global. For Chinese data, OCI also drew upon Boston University's China Global Energy Finance database (see Box 2).

In the methodology for the database, OCI classifies approved finance as fossil fuel, clean, or other. "Fossil fuels" includes investment in infrastructure that expands fossil fuel use across the value chain (including extraction, transportation, downstream activity such as refining, and power generation). It also includes policy support primarily aimed at expanding the use of fossil fuels in the economy. "Clean energy" spans low-carbon energy sources such as solar photovoltaics (PV), wind, and geothermal, as well as policy support aimed at expanding the use of renewable energy. Some low-carbon sources are not included in the "clean" category. For example, finance for large hydropower projects, defined as larger than 10 megawatts (MW), is not in the "clean" category, nor are nuclear, biofuel, or biomass-based sources due to potential significant negative impacts on local environments and communities. They are instead included in the "other" category, which also includes support for transmission and distribution infrastructure as well as general support for energy sector reform.<sup>a</sup> In this report, the "other" category is further disaggregated in the text.

The report covers all financial instruments including loans, equity, guarantees, insurance, and grants.

Workers at a Geothermal Plant In Kenya.  
Credit: Lydur Skulason.

<sup>a</sup> For more information on the methodology behind the database, refer to: <http://priceofoil.org/shift-the-subsidies-methodology/>



**Fossil fuels:** Nearly 60 percent of public finance for energy in Africa from 2014 through 2016 went to support fossil fuels – an annual average of USD 11.7 billion. Most of this finance went to oil and gas extraction and gas-fired power plants. Coal received an annual average of USD 1.4 billion in public finance over the three-year period.

**Clean energy:** Clean energy projects received 18 percent of public energy finance. Roughly a third of this clean energy finance went to financial intermediaries – including banks, funds or facilities – to support renewable energy.

**Other Infrastructure:** The remaining public finance for energy, about 23 percent of the total, went to energy infrastructure categorized as “other” in our dataset (as described in the preceding methodology section). About half of the finance in this category supported electricity transmission and distribution infrastructure.

**Energy Access:** An estimated 11 percent of the total public finance assessed in this report was specifically targeted to support energy access for the poor, according to project documentation.<sup>b</sup> Of public finance for fossil fuels, only 4 percent went to support energy access.

Less than 2 percent of public finance for energy in Africa during this period supported distributed renewable energy solutions. This proportion is exceedingly small compared to estimates of the level



Cahora Bassa Dam in Mozambique. Credit: Ryan Hoover

of investment needed to achieve universal energy access by 2030, as enshrined in the UN Sustainable Development Goals.<sup>3</sup>

**Who Benefits?:** Much of the bilateral public finance for energy in Africa appears to support the commercial interests of the countries providing the finance. In part, this is because a third of the finance assessed in this analysis comes from export credit agencies, which aim to support home-country companies to secure business overseas. However,

this trend also extends to some portion of the development finance. This raises questions about what role international public finance should play in supporting the development of local industries and companies in Africa. From a standpoint of equity, wealthier countries have a responsibility to support the energy transition in Africa – both at a government and community level – in a way that responds to urgent development needs.

<sup>b</sup> OCI tracks finance for energy access based on anticipated outcomes noted in project documentation at the time the transaction was approved. For further information on the criteria and methodology that OCI uses to track energy access finance, refer to: <http://priceofoil.org/shift-the-subsidies-methodology/>. For example, the IEA's least-cost model estimates over two-thirds of total energy investment in sub-Saharan Africa (roughly USD 22 billion per year on average) will be in off-grid and mini-grid solutions in order to achieve universal electricity access by 2030. IEA, "Energy Access Outlook 2017: From Poverty to Prosperity," World Energy Outlook Special Report, 2017. <https://bit.ly/2leDDe7>

# Top Recipients of Public Finance for Energy in Africa

**Volumes of public finance to energy in Africa are unevenly distributed. Three countries – Egypt, Angola, and South Africa – received nearly half of the public finance assessed in this report.**

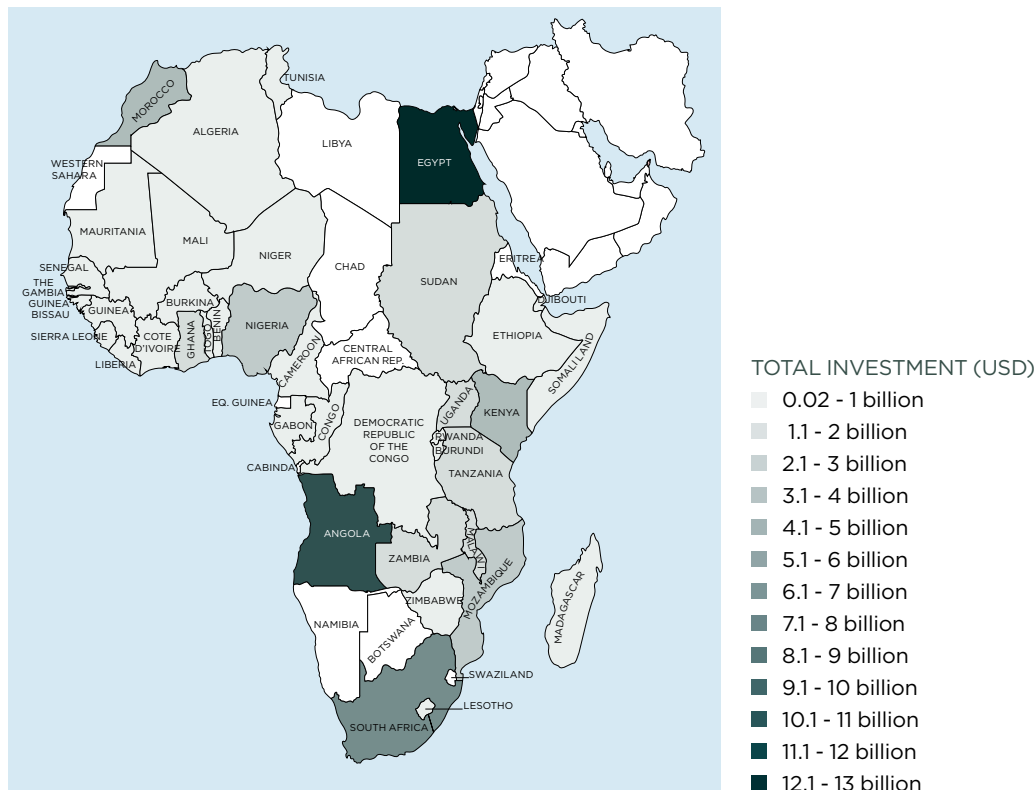
Egypt and Angola received USD 12.7 billion and USD 10 billion respectively. The third-largest recipient – South Africa – received USD 6.5 billion. Nearly all of the public finance received by Egypt and Angola was for oil and gas. In Egypt, export credit institutions provided most of the finance, accompanying high levels of overall foreign direct investment in the country.

Angola's high rank over the period reflects a particularly large loan in 2016 from the China Development Bank to Sonangol, a parastatal that oversees petroleum and gas production in Angola. South Africa received a mix of public finance for clean energy projects – including a particularly large transaction from JBIC to Standard Bank South Africa for “green operations” and about USD 1.7 billion in loans to state-owned utility Eskom. Most of South Africa's clean energy finance supported projects under its Renewable Energy Independent Power Producer Program (see Box 1).

Of the USD 4.1 billion in coal finance over the period, nearly half went to Morocco from several institutions to support coal-fired power plants. About a quarter is intended to go to Zimbabwe from the Export-Import Bank of China to expand the Hwange power station.

South Africa and Kenya received the most public finance for clean energy over the period from eight countries and three multilateral development banks (MDBs).

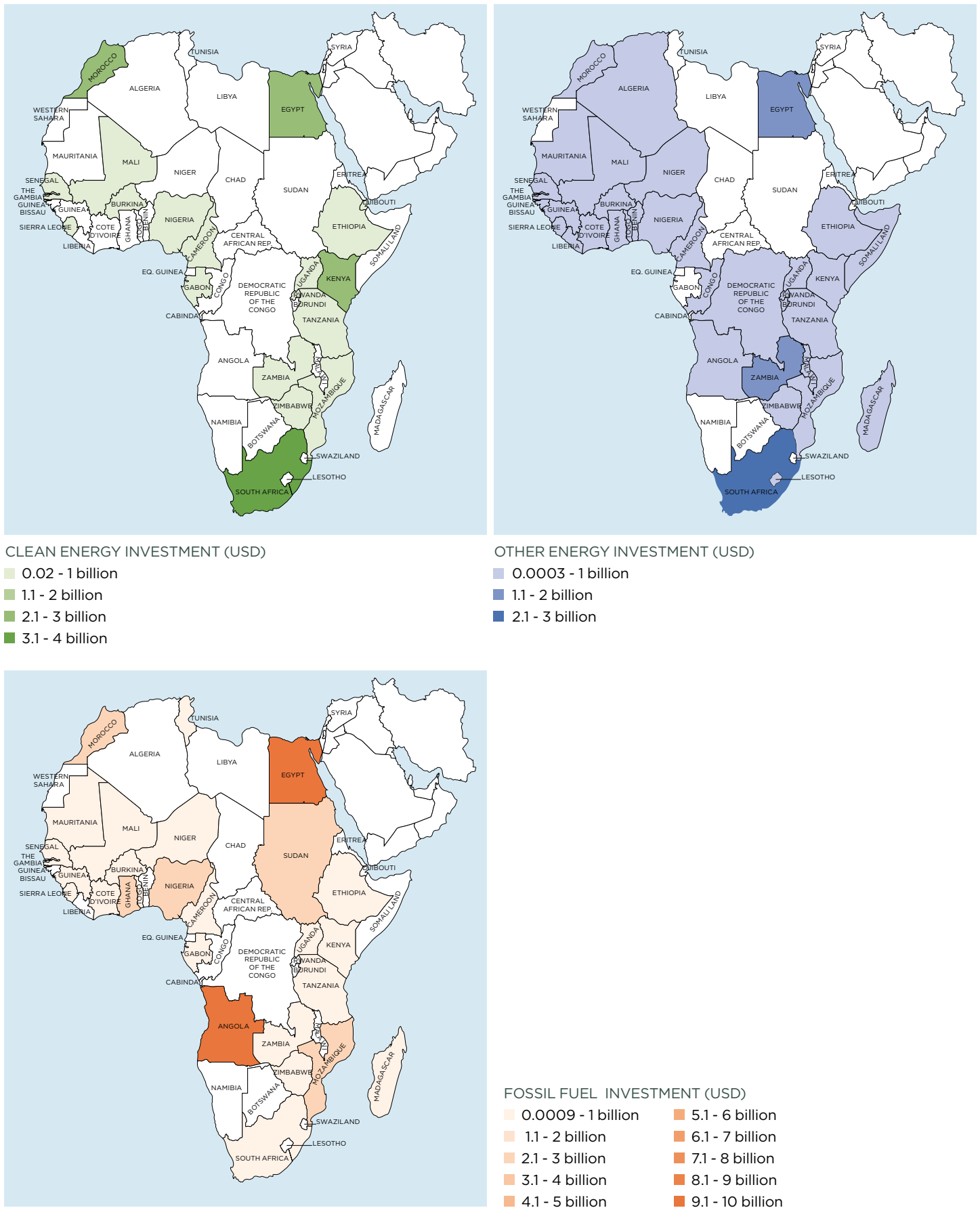
**Figure 5: Distribution of Public Energy Finance Among African Countries, FY 2014 to 2016**



Note: Excludes USD 2.4 billion over the period for multiple countries / regions.

Source: Oil Change International's Shift the Subsidies Database

**Figure 6: Comparison of Public Energy Finance Volumes for Clean, Other, and Fossil Fuels to African Countries, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

## BOX 1: South Africa and Public Energy Finance

South Africa was the third-largest recipient of public finance for energy, receiving on average USD 2.2 billion per year in bilateral and multilateral public finance for energy from 2014 to 2016. About 61 percent (USD 1.3 billion per year) went to clean energy, making South Africa the leading recipient of clean energy public finance in Africa over the period analyzed. This finance was dominated by one major transaction, a USD 2.5 billion credit line from JBIC to Standard Bank South Africa to support investment in environment-related businesses using solar PV or solar thermal energy sources.

South Africa has about 45 gigawatts (GW) of generation capacity – roughly half of the entire continent’s generating capacity. Most of the electricity generated is from coal-fired power stations. In 2011, South Africa launched its Renewable Energy Independent Power Producer Programme (REIPPP) to accelerate investment and deployment of renewable energy into its power system.<sup>4</sup> REIPPP set out a competitive bidding process that allowed private participation and investment in utility-scale renewable energy. This process departed from the previous model in which the state-owned, vertically integrated electricity utility, Eskom, managed the majority of electricity infrastructure. Under REIPPP, Eskom buys electricity from independent power producers. REIPPP also incorporates “economic development threshold” requirements for bidders, which includes meeting requirements for local content, contributions to broad-based

black economic empowerment, and participation of South African entities in projects.<sup>5</sup> It appears that REIPPP has been successful in attracting more public finance for renewables in South Africa. About 28 percent of public finance for clean energy went to concentrated solar projects (CSP) or solar PV projects that were part of the REIPPP program, and about 7 percent went to utility-scale wind.

Whether for fossil-based or renewable sources, Eskom continues to play a pivotal role in South Africa’s electricity system, and this fact is reflected in public finance flows. Just over a quarter of public energy finance into South Africa went to Eskom (USD 576 million per year). Much of this finance between 2014 and 2016 was intended to support Eskom’s general capital expenditure plans, including a mix of new generating capacity and transmission and distribution infrastructure. Some loans, for example USD 100 million from the European Investment Bank for a CSP plant, were earmarked to support Eskom’s development of renewable energy projects. Others, such as a USD 500 million loan from the China Development Bank, were intended to support major coal-fired and large hydropower projects. Eskom’s financial challenges, made worse by cost overruns for coal-fired power plants<sup>6</sup> as well as governance issues, threaten both the success of REIPPP as well as the broader push to make South Africa’s electricity mix cleaner, more sustainable, and more affordable for all.

# Top Bilateral Sources of Public Finance for Energy in Africa

## CHINA



This analysis covers three of China's policy-driven public finance institutions: the China Development Bank (CDB), the Export-Import Bank of China (Chexim), and the China Export and Credit Insurance Corporation (Sinosure). In this report, "Chinese public finance" refers to loans, equity, insurance and guarantees from these three institutions. The China Africa Development Fund was excluded from the analysis.

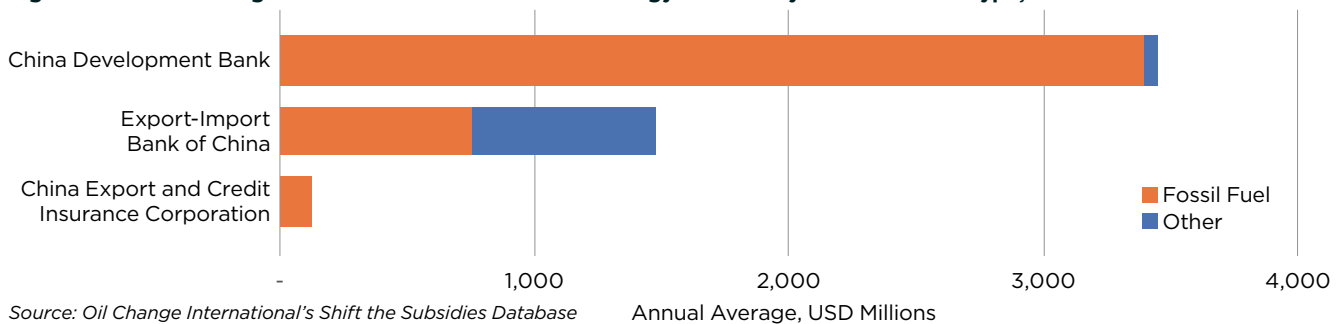
### KEY FINDINGS:

Of all the providers assessed in this report, China's policy-driven public finance institutions provided the largest volumes of public finance for energy in Africa from 2014 through 2016 – an average of USD 5 billion per year, mostly in loans to African governments or African state-owned entities.

- Nearly three quarters of China's energy finance in Africa over the period analyzed went to upstream oil and gas in Angola and South Sudan via a few large transactions to Sonangol and the Government of South Sudan.
- China was the largest provider of finance for coal-fired and large hydropower projects in Africa over the three-year period. Coal and large hydropower received 13 percent and 10 percent of China's finance respectively. China's finance for coal-fired power abroad is at odds with the direction it is taking domestically, where the government has restricted both domestic investment in new coal mines as well as permits for new coal plants due to dangerous levels of pollution.

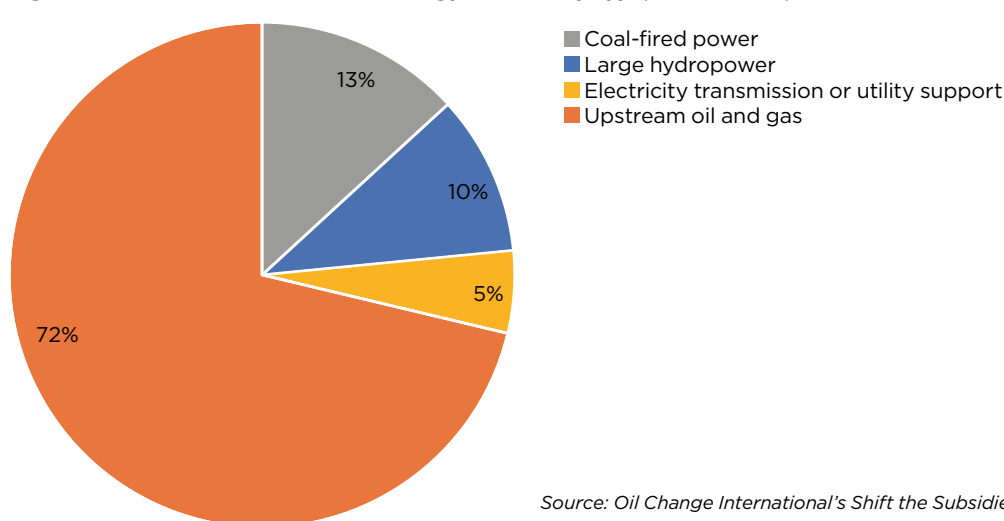
- CDB, Chexim, and Sinosure did not appear to finance any renewable energy in Africa over the three-year period. This stands out given China's dominance in the solar and wind industries globally, as well as the involvement of other Chinese banks in financing renewables such as distributed and utility-scale solar in Africa.
- Information and data on Chinese public finance is difficult to access and verify, as China's policy-driven banks do not publish disaggregated data on their financial transactions. The researchers contacted CDB, Chexim, and Sinosure prior to the publication of this analysis to verify the data but received no response.

**Figure 7: Annual Average of Chinese Public Finance for Energy in Africa by Institution and Type, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

**Figure 8: Chinese Public Finance in Energy in Africa by Type, USD billions, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

## BOX 2: A Note on Transparency and Access to Chinese Finance Data

Information and data on Chinese public finance is difficult to access and verify, as China's policy-driven banks do not publish disaggregated data on their financial transactions.

OCI's Shift the Subsidies database catalogues finance flows from policy-driven Chinese banks as well as Chinese financial institutions that are majority government-owned (for example, Bank of China and ICBC). This analysis focuses only on finance from the three policy-driven banks – the China Development Bank (excluding the China Africa Development Fund), the Export Import Bank of China, and the China Export and Credit Insurance Corporation. In this report, “Chinese public finance” refers only to loans, equity, insurance and guarantees from these three institutions.

The data is primarily from a subscription database, IJ Global, as well as from institutional news releases, some anecdotal information in annual reports, and some outside media reports. For CDB and Chexim, OCI also included all transactions from Boston University's China's Global Energy Finance database,<sup>7</sup> though OCI recorded some information differently for some of these projects.

Given data limitations, the researchers reached out to the Export-Import Bank of China, China Development Bank, and Sinosure to request verification of the dataset prior to the publication of this analysis. No responses were received.

### CHINESE PUBLIC FINANCE IN AFRICA

On average, the three Chinese institutions in this dataset provided just over **USD 5 billion per year** of finance to Africa's energy sector from 2014 to 2016, over 90 percent of which was in the form of loans to African governments or African state-owned entities.

Over the three-year period, China's institutions provided nearly USD 2 billion to support development of about **6 GW of additional coal-fired capacity<sup>c</sup>** in Africa. Most of this finance appears to support projects in which Chinese state-owned construction and engineering enterprises have contracts. Three of the five coal-fired power projects associated with this finance involve Chinese state-owned enterprises SEPCO III and Sinohydro. Chinese companies do not appear to have ownership interests in the coal mines supplying these plants.

**China's support for coal-fired power in Africa appears to be at odds with the direction China is taking domestically.** China has begun restricting domestic investment in new coal mines or additional capacity of existing coal mines<sup>8</sup> and has taken steps to significantly scale back domestic coal power due to dangerous levels of smog in the northern regions.<sup>9</sup> For example, China's central government began restricting permits for new coal plants in 2016 and began suspending hundreds of coal projects in 2017.<sup>10</sup> However, China has not extended these restrictions to overseas investment.

**Nearly three quarters of China's finance for energy in Africa from 2014 through 2016 went to upstream oil and gas** via a few large transactions to the Government of South Sudan and Sonangol. China has a long history of oil extraction in both countries – dating back to 1995 in Sudan and 2004 in Angola. Angolan oil is particularly important for China because its crudes meet Chinese refinery specifications<sup>11</sup> and it currently provides 12 percent of China's oil supply.

The Angolan government has borrowed billions from Chinese policy-driven banks over the last few years. Chinese institutions are often more willing than other public finance institutions to provide large amounts of long-term finance to countries with high risk profiles and sub-investment grade sovereign credit ratings (such as Angola). One way in which China manages this risk is to provide commodity-backed finance,<sup>12</sup> or in some cases (such as Angola), to extend loans with repayment in oil.<sup>13</sup> However, large sovereign loans also mean rising levels of public debt. China's bilateral loans make up about 14 percent of sub-Saharan Africa's total debt stock (excluding South Africa),<sup>14</sup> and rising public debt levels are of particular concern to some low-income countries dependent on oil exports.<sup>15</sup> For example, the collapse of oil prices has left Angola struggling to repay its debts, in part because of poorly-designed contracts that neglected clauses for situations of oil price decline.<sup>16,17</sup>

China's demand for natural gas imports is

expected to increase as it shifts away from reliance on coal-fired power domestically.<sup>18</sup> Most of China's near-term gas supply is expected to come from imports. This expectation is reflected in policy, as China encourages outbound investment in “the exploration and development of energy resources such as oil gas and minerals on the basis of evaluation of economic benefits.”<sup>19</sup>

Investments in large hydropower projects made up about a quarter of Chinese finance over the period assessed, supporting about 2.4 GW of greenfield capacity. For large hydro, China's engagement appears to mirror its approach to coal-fired power projects. Chinese institutions extended loans to governments or government-owned entities for large projects in which Chinese state-owned enterprises have engineering or construction contracts (with the exception of South Africa).

**Despite the dominance of China's renewable energy industries globally, CDB, Chexim, and Sinosure did not appear to finance any clean energy in Africa over the three-year period.** Globally, Chinese solar manufacturers produce about 60 percent of solar cells.<sup>20</sup> Domestically, China continues to build out its renewable capacity and added 68 GW in 2016 alone.<sup>21</sup> A recent analysis by the Institute for Energy Economics and Financial Analysis suggests that PowerChina may be increasing its exposure to renewables in Africa given

c This figure includes greenfield coal projects as well as capacity additions for existing plants.

several recent solar engineering and construction contracts in Ghana and Kenya.<sup>22</sup> A separate analysis from Boston University's Global Economic Governance Initiative notes that, "China's development finance model ... currently matches excess savings and reserves with national oil, gas and coal firms ... [but] it could easily use the same model to globalize its world class solar and wind industries."<sup>23</sup>

In recent years, Chinese regulators have taken steps to improve environmental protection. The Green Credit Guidelines issued in 2012 require Chinese banks to consider environmental and social risks in their investments and to ensure borrowers overseas abide by international norms.<sup>24</sup> Several other guidelines and directives provide guidance on the environmental and social safeguards for Chinese overseas investment. For example, the China International Contractors Association's "Sustainable Infrastructure Guidelines for Overseas Chinese Enterprises" lay out criteria for China's overseas sustainable infrastructure projects. However, most of these guidelines and directives are not binding, nor do they have enforcement mechanisms.<sup>25,26</sup> As of early 2018, China had no independent accountability mechanisms and limited capacity to enforce environmental protections.<sup>27</sup>

While these transactions are not included in this analysis, in 2017, Chinese institutions provided finance for 3250 MW of large hydropower projects in Nigeria and Cameroon, followed by a floating liquefied natural gas (LNG) facility in Mozambique. They also provided a loan to South Africa's Eskom and loans for the construction of electrical transmission lines and

substations in Kenya and Ethiopia. Finance from Chexim and Sinosure, as well as other Chinese banks such as ICBC and BOC, for the Coral South floating LNG project in Mozambique may reflect a move to invest more heavily in emerging floating LNG technology.<sup>28</sup>

#### The composition of China's finance for energy in Africa over the period assessed points to contradictions between China's stated policy and the types of energy projects receiving finance.

The Belt and Road Initiative (BRI), introduced by Xi Jinping in 2013, is a vision to guide Chinese engagement with the rest of the world. BRI aims to advance "win-win cooperation that promotes common development and prosperity."<sup>29</sup> In practice, this concept is not fully reflected in loan agreements, particularly between Chinese public finance institutions and African oil-exporting countries. Additionally, China's public finance for coal-fired generation on the continent contrasts with China's emerging leadership on climate and environmental issues. In a recent speech in May 2018, Xi Jinping heralded China's intent to fight pollution and promote "ecological civilization" on the global stage, making connections to the links between ecology, environment, and human well-being.<sup>30</sup> This development approach does not appear to be reflected in the types of energy projects supported by China's major policy-driven banks in Africa.

There are some signs that the Chinese government is becoming more responsive to issues raised by communities and civil society organizations (CSOs). For example, the Belt and Road Initiative has

environmental sustainability as a core component and acknowledges the role of civil society organizations in environmental protection. Nonetheless, **monitoring the impacts of projects will be an important role for CSOs, particularly in contexts where host country environmental regulations and/or enforcement is weak.**

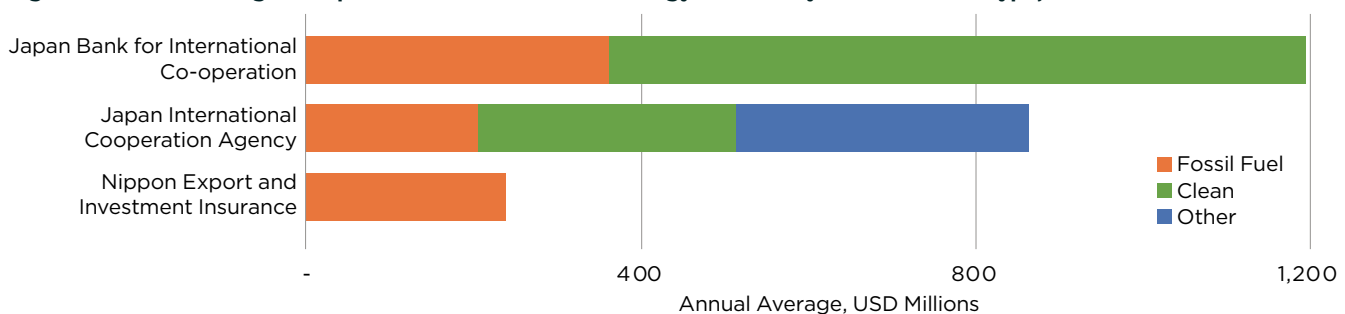
## JAPAN

This data covers finance from the Japan Bank for International Co-operation (JBIC), the Japan International Cooperation Agency (JICA), and Nippon Export and Investment Insurance (NEXI).

### KEY FINDINGS

- Japanese institutions provided an annual average of USD 2.3 billion to energy in Africa from 2014 to 2016. About half of this finance went to clean energy while over a third went to coal and gas projects.
- Japanese public finance institutions do not appear to have financed any fossil fuels in Africa in 2016.
- Nearly three quarters of Japanese public energy finance went to three countries: South Africa (36 percent), Morocco (20 percent), and Egypt (16.5 percent).
- While Japan's global public finance for clean energy is heavily skewed toward fossil fuel activity,<sup>31</sup> Japan has provided significant volumes of finance for clean energy in Africa in recent years. This trend suggests that it is possible for public finance flows to support significantly scaled-up renewable energy development on the continent.

**Figure 9: Annual Average of Japanese Public Finance for Energy in Africa by Institution and Type, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database



However, Japan is still providing support for coal-fired power in Africa, with USD 1.4 billion for a coal-fired power plant and USD 238 million for a coal port over this period.

### JAPANESE PUBLIC FINANCE IN AFRICA

Japanese institutions provided on average USD 2.3 billion per year of public finance for energy in Africa. Two projects financed in 2014 account for over half of the total: a USD 2.5 billion credit line to Standard Bank South Africa for environmental businesses that use renewable energy and USD 1.4 billion for a 1250 MW coal-fired power plant in Safi, Morocco. As the former transaction is a line of credit, it is difficult to verify how much has been used to date, but the full amount is included in this analysis.

Largely owing to the size of the credit line to Standard Bank, Japan’s support to clean energy averaged USD 1.1 billion per year from 2014 to 2016. Other clean energy projects financed included utility-scale geothermal, solar PV, and wind power projects, as well as support for an off-grid distributed solar project in Tanzania. Japan’s significant support for clean energy in Africa (albeit dominated by a single line of credit in this dataset) contrasts with Japan’s public finance globally, which skews more than 6 to 1 toward fossil fuels over clean energy.<sup>32</sup>

Over a third of Japan’s public finance for energy in Africa went to three fossil fuel projects. The majority went toward a 1250 MW coal-fired power generation project –

the Safi plant – in Morocco. JBIC reached a loan agreement with a consortium of developers and NEXI underwrote insurance for several banks involved in the project. In 2014, Japan provided a series of loans and a guarantee to support the 240 MW Kinyerezi gas-fired power plant in Tanzania, which is being constructed by Japanese company Sumitomo Corporation with equipment manufactured by Mitsubishi Hitachi Power Systems. JICA extended a loan for infrastructure at the Nacala Port in Mozambique, which will facilitate the transport of coal from the Moatize mine. Notably, Japanese institutions do not appear to have financed any fossil fuels in Africa in 2016.

Japanese institutions supported a number of transmission and distribution upgrades, but these did not represent significant volumes of finance. In 2015, JICA also extended a development policy loan for power sector restructuring in Angola. The researchers did not find any evidence to suggest JICA influenced the strategy in favor of Japanese interests.

### EUROPEAN BILATERAL PUBLIC FINANCE

This data covers the public finance and export credit institutions of Germany, Italy, France, the United Kingdom, Sweden, and the Netherlands for fiscal years 2014 to 2016.

#### KEY FINDINGS

- ◆ In aggregate, these countries provided about USD 4.4 billion per year on average in public finance to Africa’s energy sector. Sixty-two percent went to

fossil fuels, 22 percent to clean energy, and 16 percent to other energy projects.

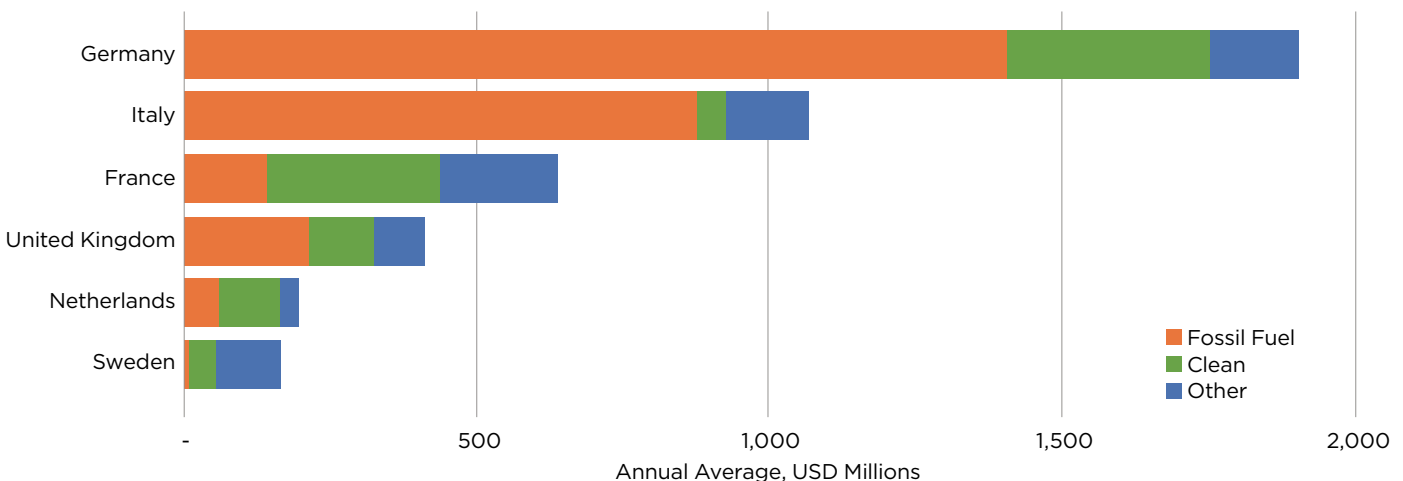
- ◆ Germany (43 percent), Italy (24 percent), and France (15 percent) were the largest providers.
- ◆ Egypt received just over half of European finance, 80 percent of which was for fossil fuels.

### EUROPEAN BILATERAL PUBLIC FINANCE IN AFRICA

Public finance for energy from each of these countries manifests in substantially different ways in Africa, and each country has distinct motivations for their engagement on the continent. For example, Italy’s 2016 to 2018 international development cooperation planning document makes clear that Italy’s development finance will aim to address the root causes of migration,<sup>33</sup> particularly in Africa. Similarly, Germany’s development policy has shifted to focus on the root causes of displacement in Africa.<sup>34</sup> Meanwhile, the U.K. development strategy currently focuses on fragile states as well as enacting economic reforms (such as market liberalization) in developing countries. France’s stated focus in development finance is on climate change, education, and global health, which could help explain France’s high proportion of clean energy finance in Africa. In all cases, export credits focus mostly on expanding markets for goods and services.

Despite the differing motivations for their engagement in Africa, the bilateral finance of these European countries is considered

**Figure 10: Annual Average of European Bilateral Public Finance for Energy in Africa by Country and Type, FY 2014 to 2016**



Source: Oil Change International’s Shift the Subsidies database

together in this section to make it easier to compare them to one another. This section does not cover the outbound public finance from every European country, but only from selected countries: Germany, Italy, France, the United Kingdom, the Netherlands, and Sweden.

Three institutions provided 63 percent of public finance for energy in Africa from these countries: Germany's Euler Hermes and Italy's Servizi Assicurativi del Commercio Estero (SACE), both export credit agencies, as well as France's Agence Française de Développement (AFD).

None of the European institutions appeared to support coal-fired power projects in Africa over the period analyzed. The USD 2.7 billion per year in fossil fuel finance mainly supported gas- and oil-fired power plants (69 percent), particularly in Egypt, followed by refineries (20 percent).

Italy and Germany dominated oil and gas finance among European providers. They were responsible for roughly 84 percent of oil and gas finance from European countries to Africa over the three-year period. While not captured in the data used in this report, Bpifrance (France's export credit agency) and SACE are both planning major support for LNG development in northern Mozambique, with the total project cost reaching USD 8 billion.

A number of the gas-fired power plants supported by German public finance in Africa between 2014 and 2016 involve German conglomerate Siemens, including, for example, the large 4,400 MW Beni Suef gas-fired power plants in Egypt and the Azura-Edo gas-fired power plant in Nigeria. Germany's support for the Beni Suef plant alone accounts for more than two thirds of the country's total public finance for energy in Africa over the three-year period.

European bilateral institutions provided approximately USD 957 million per year in public finance for clean energy in Africa – a third of the volume they provided to fossil fuels. Germany has previously called on the World Bank Group to phase out its fossil fuel finance,<sup>35</sup> yet of European providers of finance, Germany provided the most finance for fossil fuels in Africa.

Across all energy sources, Germany again led in absolute volumes, followed by France. South Africa received the most finance from European bilateral institutions at nearly USD 4 billion. About 7 percent of public finance for clean energy from European bilateral institutions went to distributed renewables and cookstoves. Most of this was from the U.K.

## UNITED STATES



This data covers finance from the Overseas Private Investment Corporation (OPIC)

and the Export-Import Bank of the United States (U.S. EXIM). It is important to note that finance from U.S. EXIM is significantly lower than in previous periods due to the lack of a quorum on its board of directors.

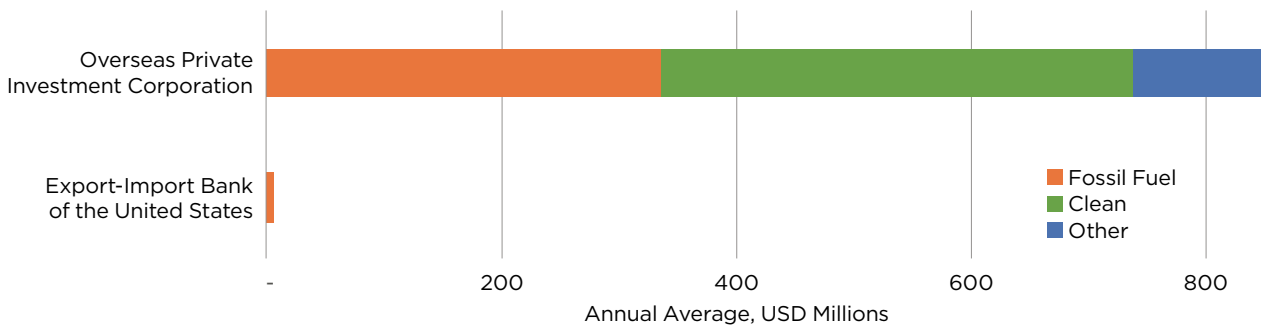
### KEY FINDINGS

- On average, U.S. OPIC and EXIM provided about USD 859 million per year to energy in African countries from 2014 to 2016. More finance went to clean energy than to fossil fuels (47 percent versus 40 percent). Nearly all U.S. public finance went directly to U.S. companies or facilitated deals for U.S. companies.
- OPIC and U.S. EXIM provided an annual average of about USD 341 million in loans and guarantees to expand oil and gas infrastructure in Africa.
- South Africa, Egypt, Senegal, and Kenya were the top recipients over the three-year period. Inflows to these countries made up 79 percent of OPIC and Exim support to the continent.

### U.S. PUBLIC FINANCE IN AFRICA

The U.S. development finance institution, OPIC, supported on average USD 854 million in loans and guarantees, which went to companies, consortiums, and a development bank involved in projects in African countries. OPIC's mission is to assist U.S. companies to invest in emerging markets, and it can only support

**Figure 11: Annual Average of U.S. Public Finance for Energy in Africa by Institution and Type, FY 2014 to 2016**



Note: About USD 58 million of guarantees to companies with global operations (USD 50 million of which supported oil and gas) from U.S. EXIM was excluded from this analysis. It is possible that some of these companies have operations or deals in African countries.

Source: Oil Change International's Shift the Subsidies database

companies with a U.S. connection. Its engagement in Africa reflects a heavy focus on financing or facilitating deals for American companies as well as a private-sector oriented approach.

In 2013, the U.S. government launched a public-private financing initiative, Power Africa, to address power and electricity shortages in select African partner countries. Power Africa set a goal of adding add more than 30,000 MW of “cleaner, more efficient electricity generation” and to increase electricity access by adding 60 million new connections in sub-Saharan Africa.<sup>36</sup> This initiative encouraged OPIC and U.S. EXIM to finance more energy projects in Africa.

Clean energy projects received 47 percent (USD 1.2 billion) of OPIC’s finance. Over three quarters went to utility-scale wind and solar plants (USD 652 million and USD 436 million, respectively). The remaining USD 98 million went to off-grid solar, small hydropower, mini-grids, and a facility to support microfinance institutions.

About 39 percent of OPIC’s finance went to companies involved in expanding oil and gas infrastructure (USD 336 million per year on average). About half of this finance (totaling USD 529 million) went to a series of transactions to support gas-fired power plants in West Africa: the 240 MW Azura Edo gas-fired plant in Nigeria, a 190 MW gas-fired plant in Ghana, and a 33

MW expansion of Cap des Biches, a heavy-fuel oil/gas-fired plant in Senegal. OPIC also supported oil and gas exploration and development and petrochemical and oil refineries in Egypt.

An additional USD 344 million of OPIC finance went to companies to help expand their power or infrastructure portfolios and to a 10 MW hydropower project in South Africa.

The mandate of U.S. EXIM is limited to supporting projects that improve the U.S. economy or increase U.S. exports. From 2014 to 2016, U.S. EXIM provided one guarantee to the West African Development Bank (BOAD), which financed the export of turbines and turbine-generator set units from U.S. company General Electric for the gas-fired Azito power project in Cote d’Ivoire. Finance from U.S. EXIM over this three-year period is lower than in previous periods due to the lack of a quorum on its board of directors. For example, from 2011 to 2013, U.S. EXIM provided roughly USD 290 million per year on average to the continent, supporting coal-fired power in South Africa as well as oil and gas exploration in Nigeria. However, as U.S. EXIM has not had a quorum (a minimum of three members on its five-seat board of directors) since 2015, U.S. EXIM has been unable to enter into medium- to long-term transactions above USD 10 million.<sup>37</sup> Thus, U.S. EXIM’s finance from

2014 to 2016 has been notably lower. Additionally, the researchers excluded from this analysis roughly USD 58 million of U.S. EXIM guarantees to companies with global operations (USD 50 million of which supported oil and gas) from 2014 to 2016 due to difficulty tracking the geographies supported by this finance.

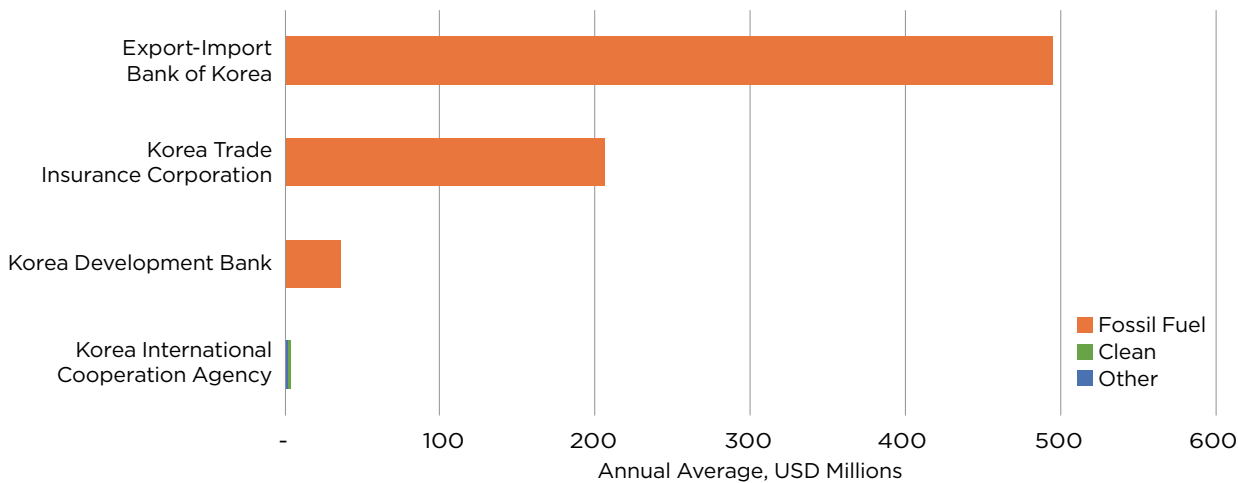
## KOREA

This data covers finance from the Export-Import Bank of Korea (Kexim), the Korea Development Bank (KDB), the Korean International Cooperation Agency (KOICA), and the Korea Trade Insurance Corporation (KSURE).

### KEY FINDINGS

- Korea provided USD 740 million per year on average in public finance to the African energy sector from 2014 through 2016. Nearly all (99.8 percent) went to oil and gas extraction.
- All of Korea’s fossil finance was in the form of loans or guarantees to companies or special purpose vehicles (SPVs) for the development or deployment of floating offshore infrastructure for oil and gas extraction.
- KOICA was the only institution that financed non-fossil fuel energy in Africa, but it represented less than 1 percent of total Korean finance.

**Figure 12: Annual Average of Korean Public Finance for Energy in Africa by Institution and Type, FY 2014 to 2016**



Source: Oil Change International’s Shift the Subsidies database

## KOREAN INSTITUTIONS IN AFRICA

Korean public finance institutions provided USD 740 million per year on average to the African energy sector from 2014 to 2016. Nearly all this finance (99.8 percent) involved loans or guarantees to companies or SPVs for the development or deployment of floating offshore oil and gas extraction infrastructure in Angola and Mozambique.

Over the three-year period, KDB and Kexim extended loans and guarantees for the development of a floating production storage and offloading (FPSO) unit and a floating LNG facility in Angola and Mozambique, respectively. KSURE extended a USD 620 million export credit guarantee to Daewoo Shipbuilding and Marine Engineering Co. (DSME), one of the “big three” shipbuilders in South

Korea, to build and export two deep-sea oil drilling units in offshore Africa (country unknown).<sup>38</sup> KDB controls 56 percent of shares in DSME.<sup>39</sup>

The KOICA was the only institution that financed non-fossil fuel energy in Africa from 2014 to 2016.<sup>40</sup> However, compared to the other Korean public finance institutions, KOICA provided very minimal finance – USD 1.5 million a year on average, or less than 1 percent of total Korean finance.

The dominance of oil and gas in Korea’s international public energy finance is a legacy of the country’s past focus on “resource diplomacy.” The policy, which encouraged the ambitious pursuit of natural resources (particularly oil and gas), was financially disastrous, resulting

in nearly \$2 billion in estimated losses as of early 2016.<sup>41</sup> Both the Moon Jae-in and Park Geun-hye governments have stated their intent to turn away from the “resource diplomacy” approach; however, this shift has not yet altered the make-up of Korea’s international public finance. It seems likely that some of Korea’s international public finance for oil and gas in recent years has been driven by the financial struggles of Korea’s shipbuilding industry through 2017.<sup>42</sup> Much of Korea’s export finance has centered on the export of deep-sea drilling units and other marine oil processing facilities constructed by Korean shipbuilding companies. This also suggests that much of Korea’s recent public finance to support oil and gas development in Africa may be motivated by trade-related economic considerations rather than security of supply.

Coal-fired power plant in South Africa. Credit: Gerhard Roux



# Multilateral Development Bank Finance for Energy in Africa

This analysis covers the World Bank Group (WBG), African Development Bank Group (AfDB), European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD), New Development Bank (NDB), Islamic Development Bank (IsDB), and the Asian Infrastructure Investment Bank (AIIB). The approvals tracked in the database only include MDBs' core finance (i.e., their "own resources" as per each institution's definition). Finance from trust funds and special funds are excluded.

## KEY FINDINGS

- Of the institutions covered in this report, multilateral development banks accounted for about a third of the public finance going into Africa's energy sector from 2014 to 2016 (USD 6.4 billion per year on average).
- The WBG and the AfDB are the largest providers, representing 60 percent and 21 percent, respectively, of MDB finance to energy in Africa over the period assessed.
- The AIIB did not appear to finance any energy infrastructure in Africa over this period.

Given this analysis stops at 2016, it is worthwhile to note that some institutions have recently made significant changes that will influence the trajectory of their energy finance. For example, the World Bank Group announced an end to its finance for upstream oil and gas starting in 2019,<sup>43</sup> and all of AfDB's approved finance for electricity generation in 2017 went to non-fossil fuel sources.<sup>44</sup>

Multilateral development banks provided about a third of the public finance going into Africa's energy sector over fiscal years 2014 to 2016. About 60 percent (USD 11.4 billion) came from the World Bank Group, followed by the African Development Bank (USD 4.1 billion). Roughly 43 percent of MDB finance went toward fossil fuel infrastructure, either via direct investments in infrastructure projects or via support to financial intermediaries, associated infrastructure, technical assistance or policy support. About 17 percent went to clean energy and 39 percent went to other energy infrastructure.

Of the finance categorized as "other," about half (55 percent, or USD 4.2 billion) went to expanding or improving grid transmission and distribution

infrastructure, about 14 percent (USD 1.1 billion) went to large hydropower projects, and roughly 19 percent went to general sector or governance reform, including institutional support.

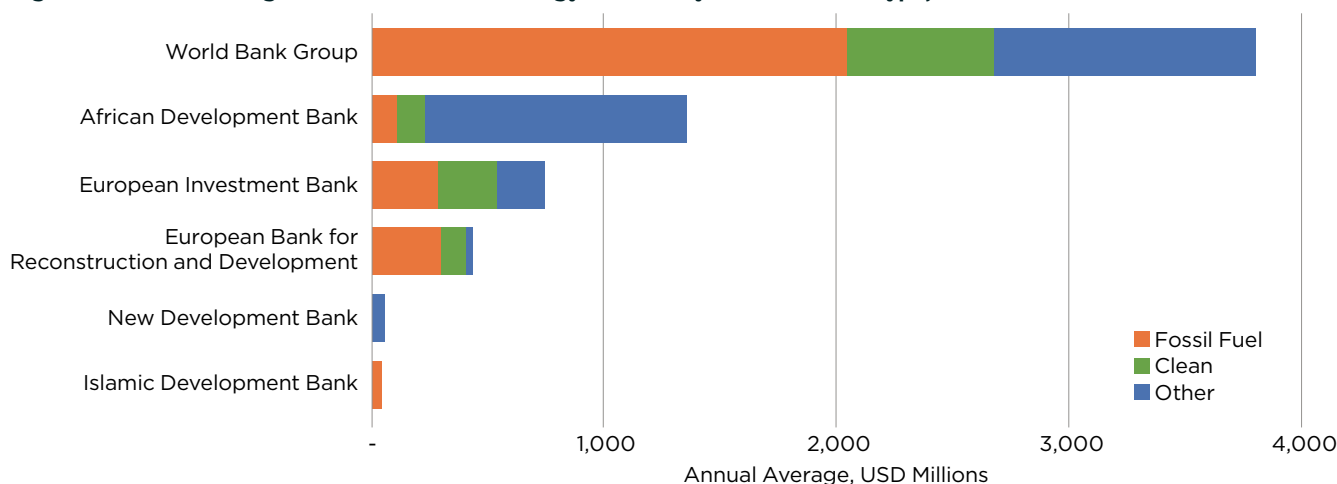
Egypt received USD 3.3 billion from MDBs, nearly twice as much as the next largest recipient. South Africa, Nigeria, Morocco, Kenya, and Ghana received between USD 1.2 and 1.7 billion each.

The New Development Bank is a relatively new player amongst the multilateral bank actors. Created in 2014, the NDB became operational in February 2016. Shareholding is divided equally between the BRICS countries.<sup>e,45</sup> Thus far, NDB has had only one transaction in Africa: In 2016, it approved a USD 180 million project finance facility to Eskom to support renewable energy development, including grid infrastructure and several renewable energy independent power projects.

The AIIB did not appear to finance any projects in Africa over the three-year period.

A forthcoming OCI report on energy access finance at the MDBs will have a section on flows into Africa.

**Figure 13: Annual Average of MDB Finance for Energy in Africa by Institution and Type, FY 2014 to 2016**



Source: Oil Change International's Shift the Subsidies Database

e BRICS is the acronym for an association of five major emerging national economies: Brazil, Russia, India, China, and South Africa.

**BOX 3: Profile of a Regional Development Bank: DBSA**

While much of this report focuses on international public finance flowing into Africa, there are also some important development finance institutions within Africa that provide public energy finance. The Development Bank of Southern Africa (DBSA) is one example: It is a development finance institution that aims to advance development impact in South Africa and the rest of the continent. It focuses mainly on infrastructure development. Outside of South Africa, it provides finance for state-owned enterprises and public-private partnerships. Its scope is slightly wider in South Africa, where it includes municipalities and the private sector.<sup>46</sup>

Over 2014 and 2015, the Development Bank of Southern Africa provided roughly USD 183 million per year to energy in Africa. Just over a third (36 percent) went to fossil fuels, namely gas infrastructure in Ghana and a coal-fired power plant in Zambia. About 57 percent went to clean energy, specifically three utility-scale CSP and wind plants in South Africa. The DBSA extended USD 35 million (6 percent) to the Itezhi Tezhi Hydro Power Plant in Zambia.

# Conclusions

Public finance for energy in Africa is currently weighted toward fossil fuel infrastructure. Nearly 60 percent of the public finance going into Africa's energy sector from 2014 through 2016 supported fossil fuels, totaling roughly USD 11.7 billion per year on average. This compares to about 18 percent for clean energy sources (USD 3.6 billion per year) and 23 percent for other energy infrastructure (USD 4.5 billion per year).

About USD 10 billion per year went to oil and gas infrastructure, concentrated mainly in Egypt and Angola, for oil and gas exploration and development, oil and petrochemical refineries, and gas-fired power plants. Public finance for coal was about USD 1.4 billion per year. Most of this went to coal-fired power generation, with some support to associated infrastructure (for example, ports developed largely for the purposes of transporting coal).

Over a third of public finance for clean energy went to South Africa, which launched a large renewable energy competitive procurement program in 2011.

Of multilateral and bilateral sources covered in this report, China was the biggest provider, followed by the World Bank Group and Japan. China's policy-driven banks and export credit institutions provided far more public finance into Africa's energy sector than any other country or institution over the 2014 to 2016 period – averaging about USD 5.1 billion per year. Nearly three quarters of Chinese finance went into upstream oil and gas infrastructure.

Analysis suggests that distributed renewable energy will be an important part of the solution in delivering universal energy access by 2030, particularly in Africa.<sup>47</sup> Yet, as this report shows, current flows of public finance into these solutions are exceedingly small relative to overall public finance for energy in Africa.







To improve both energy access and resiliency to climate change, public finance should support African countries in a transition to clean energy infrastructure, including distributed renewable systems. This analysis shows that the flows of public energy finance into Africa are currently skewed towards fossil fuel expansion in large economies. A better use of public resources would be to address the urgent climate and development needs across the continent.

Furthermore, a majority of bilateral public finance is supporting the commercial interests of the countries providing it. A shift from fossil fuel to clean finance should coincide with a shift toward inclusive growth. Development must also bring more economic opportunities – including leadership and ownership opportunities – for a broader spectrum of the population in African countries.




Wind Farm in the Eastern Cape, South Africa. Credit: NJR ZA



**Appendix: Annual Average Finance by Institution and Category, FY 2014 to 2016 (USD Millions)**

 <b>China</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
China Development Bank	3,394	-	56
China Export and Credit Insurance Corporation	122	-	-
Export-Import Bank of China	749	-	730
<b>Total</b>	<b>4,265</b>	<b>-</b>	<b>785</b>
 <b>Japan</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
Japan Bank for International Co-operation	361	833	-
Japan International Cooperation Agency	204	312	347
Nippon Export and Investment Insurance	239	-	-
<b>Total</b>	<b>804</b>	<b>1,146</b>	<b>347</b>
 <b>Germany</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
Euler Hermes	1,299	54	-
Deutsche Investitions- und Entwicklungsgesellschaft	37	58	7
KfW IPEX-Bank	71	60	36
Kreditanstalt fuer Wiederaufbau	-	175	108
<b>Total</b>	<b>1,407</b>	<b>347</b>	<b>151</b>
 <b>Italy</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
Cassa Depositi e Prestiti	133	-	40
Servizi Assicurativi del Commercio Estero	743	53	99
<b>Total</b>	<b>876</b>	<b>53</b>	<b>139</b>
 <b>France</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
Agence Française de Développement	126	224	151
Compagnie Française d'Assurance pour le Commerce Extérieur	-	-	35
Proparco	17	72	15
<b>Total</b>	<b>143</b>	<b>296</b>	<b>201</b>
 <b>United Kingdom</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
CDC Group Plc	67	11	72
Department for International Development	-	99	15
UK Export Finance	141	-	-
<b>Total</b>	<b>208</b>	<b>110</b>	<b>87</b>



	<b>Netherlands</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
	Netherlands Development Finance Corporation	62	110	28
	Total	62	110	28
	<b>Sweden</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
	AB Svensk Exportkredit	-	-	44
	Swedfund International AB	9	7	-
	Swedish Export Credit Agency	-	-	44
	Swedish International Development Cooperation Agency	-	38	23
	Swedish Ministry for Foreign Affairs	-	1.4	-
	Total	9	46	112
	<b>United States</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
	Export-Import Bank of the United States	6	-	-
	Overseas Private Investment Corporation	336	403	115
	Total	341	403	115
	<b>Korea</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
	Export-Import Bank of Korea	495	-	-
	Korea Trade Insurance Corporation	207	-	-
	Korea Development Bank	37	-	-
	Korea International Cooperation Agency	-	0.7	0.9
	Total	739	0.7	0.9
	<b>Multilateral Development Banks</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
	African Development Bank	109	119	1,132
	European Bank for Reconstruction and Development	301	110	31
	European Investment Bank	293	259	194
	Islamic Development Bank	38	-	-
	New Development Bank	-	-	60
	World Bank Group	2,052	636	1,120
	Total	2,793	1,124	2,537
	<b>Regional Development Banks</b>	<b>Fossil Fuel</b>	<b>Clean</b>	<b>Other</b>
	Development Bank of Southern Africa	66	105	12
	Total	66	105	12

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