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# Coal Subsidies Toolkit

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## INTRODUCTION

This ‘coal subsidies toolkit’ is designed to provide guidance on how to identify the many forms of coal subsidies, to quantify them where possible, and to campaign to ultimately eliminate them. The toolkit covers national subsidies and public finance for coal, including exploration, mining, processing, power plants, and associated infrastructure.

The toolkit is divided into four main sections: 1. background on coal subsidies; 2. identifying coal subsidies; 3. how to campaign on subsidies at the local, national, and international levels; and 4. coal subsidy information resources by country.

## BACKGROUND ON COAL SUBSIDIES

### Coal Subsidies Transfer Public Money to Private Interests

New coal developments require huge amounts of capital. Subsidies are powerful instruments that can lure investments into coal development. A ‘subsidy’ transfers public money to private interests, including through direct expenditures, below-market financing, tax breaks, below market-rate goods or services, price controls, and negative externalities.

#### Importance of Coal Subsidies for Economic Viability

New coal developments, whether for mining, power plants, or transport infrastructure, require huge amounts of capital. The construction of a 600-megawatt coal-fired power plant can cost more than US\$2 billion.

As such, the development of coal in any given situation will largely depend on the financial decisions of investors and banks, both private and public. These decisions are determined by the costs and benefits of a project, which is most often heavily determined by the level of public assistance, or subsidies, in its many forms.

Subsidies are powerful instruments and are often used to lure investments into particular sectors and projects. In fact, subsidies such as tax breaks, cheap land and water, and public loan guarantees are often the deciding factor whether or not a project gets financed.

Subsidies can play a legitimate role in securing public goods that would otherwise remain beyond reach, such as access to electricity for the poor. But too often subsidies are misdirected to promote publically harmful industries and to line the pockets of the rich and powerful.

It deserves to be noted that subsidies do not reduce the costs of energy or electricity. Subsidies simply move the costs onto society in different ways. Someone always pays – either through taxes, foregone revenue, or foregone expenditure. Subsidies represent a drain on national budgets – often resulting in a lack of investment in social programs (health services, education), infrastructure, etc. In many countries, spending on fossil fuel subsidies greatly exceeds support to public health and education.

Moreover, subsidies to oil, gas, and coal undermine international efforts to avert dangerous climate change. [The IMF argues](#) that eliminating these fossil fuel subsidies could cut global greenhouse-gas emissions by **13 percent**, curtail air pollution, and shore up the finances of many poorer countries now in debt trouble.<sup>1</sup>

### Definition of Coal Subsidies

According to the World Trade Organization, a subsidy is a transfer of funds or a potential transfer of funds from a government or public body through a grant, loan, equity infusion, or loan guarantee; a government fiscal incentive such as a tax credit; a government-provided good or service other than general infrastructure; or a government payment to a funding mechanism or private body to carry out one or more of the functions illustrated above.

Or put more simply – a subsidy is any government policy or activity that lowers consumer prices or transfers money to producers, reduces their cost of operations, bears risk or increases their returns.

As such, subsidies can be identified based on five main pathways:

1. **Transfer of funds or liabilities** – e.g., government-provided loans or insurance/guarantees
2. **Foregone government revenue** – e.g., tax exemptions/credits
3. **Provision of goods or services below market rate** – e.g., free/low cost land and water, construction of rail infrastructure to serve coal projects, royalty reductions
4. **Income or price support** – e.g., electricity and fuel price controls
5. **Negative externalities** – costs of production & consumption do not account for social costs, e.g., climate change, public health, and crop damage.

The section below on identifying coal subsidies provides a check list of subsidy types accompanied by a short explanation, tips for estimating the value, and sources of information/subsidy data. For the purposes of better understanding who is benefitting from a particular subsidy, the types of subsidies discussed above should be further categorized according to consumer and producer.

### Consumer Subsidies

Consumer subsidies mainly arise when the prices as for electricity or fuel paid by consumers, including both firms (intermediate consumption) and households (final consumption), are held below a benchmark market price due to government policies and/or programs. Consumer subsidies typically stimulate excessive fuel or electricity consumption by industry or the public. Initiatives aimed at subsidy reform, including those by the World Bank, have largely focused on consumer subsidies partly because they are more easily quantifiable than producer subsidies and typically display more visible strains on government budgets.

### Producer Subsidies

Producer subsidies to coal are poorly estimated and understood by researchers and government, and it is therefore often difficult to obtain data on them. Producer subsidies distort the market by making it easier for firms to enter and operate within the exploration, extraction (e.g. coal mining), processing, transportation, and power generation sectors, implicitly gaining a competitive advantage over non- or

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<sup>1</sup> IMF, 2013. Energy Subsidy Reform: Lessons and Implications. International Monetary Fund, 2013.

less-subsidized industries, such as renewables, and making the businesses more profitable or financially viable than they otherwise would be.

### **Exploration Subsidies**

Producer subsidies for exploration deserve extra emphasis and urgent attention. Through new exploration - especially in Australia, India, and Indonesia - hard coal reserves grew by 26 billion tons (3.6%) in 2011.<sup>2</sup> This translates to total global coal reserves of 1,038 billion tons, or 132 years of the world's coal output at current rates of production.<sup>3</sup> At the same time, scientists have determined that at least two-thirds and possibly more of the world's current, proven reserves<sup>4</sup> of oil, gas, and coal must not be burned if we are to avoid raising global temperatures above 2 degrees Celsius – the globally agreed limit.

***Thus, any subsidy for coal exploration is incompatible with preventing the worst impacts of climate change and should be considered inconsistent with any government's or multilateral institution's mission.***

## **Subsidies to the Coal Industry are Significant**

The amount of subsidies depends on the definition and the assumptions used to value the subsidies. The following section provides several estimates of coal-specific subsidies developed by various international and national entities. Producer subsidies tend to be less transparent and more difficult to estimate. As such, the existing fossil fuel and coal subsidy estimates tend to greatly underestimate the overall level of subsidies.

### **Estimates of National Coal Subsidies**

The [OECD estimates coal subsidies](#) at **\$11.7 billion** annually in the 34 OECD countries. This includes budgetary support and tax expenditures only.<sup>5</sup> Meanwhile, a recent [IMF assessment](#) put global coal subsidies at **\$539 billion** annually globally. Unlike most fossil fuel subsidy estimates, the IMF estimate includes the cost of externalities, along with consumer and some producer subsidies.<sup>6</sup> In contrast, the IEA estimates that only \$88 billion was directed toward renewable energy in 2011.

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<sup>2</sup> Brightwell, Ryan, Katrin Ganswindt, and Heffa Schücking, 2013. Banking on Coal. Urgewald, BankTrack, CEE Bankwatch Network and Polska Zielona Sieć. November 2013.

<sup>3</sup> Energiestudie 2012," Deutsche Rohstoffagentur, Bundesanstalt für Geowissenschaften und Rohstoffe, 2012.

<sup>4</sup> Proven reserves are not only considered to be recoverable but can also be recovered economically. This means they take into account what current mining technology can achieve and the economics of recovery. Proved reserves will therefore change according to the price of coal; if the price of coal is low proved reserves will decrease.

<sup>5</sup> OECD, 2013. Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels 2013.

[http://www.keepeek.com/Digital-Asset-Management/oecd/environment/inventory-of-estimated-budgetary-support-and-tax-expenditures-for-fossil-fuels-2013\\_9789264187610-en#page1](http://www.keepeek.com/Digital-Asset-Management/oecd/environment/inventory-of-estimated-budgetary-support-and-tax-expenditures-for-fossil-fuels-2013_9789264187610-en#page1)

<sup>6</sup> IMF, 2013. Energy Subsidy Reform: Lessons and Implications. It is unclear what portion of the IMF's externalities represent carbon emissions. The IMF's climate damages are calculated based on the "social cost of carbon" (SCC). The IMF uses a conservative SCC of \$34 per ton, derived from the work of the [U.S. Interagency Working Group on Social Cost of Carbon](#). The UK government's latest SCC calculation is \$41-\$124 per ton of CO<sub>2</sub>.

Table 1 provides estimates of coal subsidies across European countries based on OECD data. The countries of Germany, Spain, and Poland provide the largest subsidies to coal, with Germany far surpassing all other European countries at \$3.3 billion in 2011.

**Table 1. European Coal Subsidies 2011**

Country	Coal Subsidy (million USD)
Austria	92
Belgium	0
Czech Rep	144
Denmark	325
Estonia	5
Finland	207
France	4
Germany	3,297
Greece	1
Hungary	96
Ireland	103
Italy	0
Luxembourg	0
Poland	841
Portugal	17
Slovak Republik	153
Slovenia	51
Spain	840
Sweden	123
UK	129
<b>Total</b>	<b>6,428</b>

Source: OECD country databases<sup>7</sup>

The [IMF's assessment](#) of coal subsidies, which includes externalities, indicates that Asia accounts for around half of global coal subsidies and that they represent substantial costs to these countries. Coal subsidies are estimated to equal 14.27% of government revenue in China and 10.08% in India (see Table 2).

**Table 2. Post-tax Subsidy as Percent of Government Revenue**

Country	Coal	Electricity	Petroleum Products	Gas
China	14.27	1.34	0.88	0.42
India	10.08	1.97	10.24	1.79
Thailand	3.73	7.77	6.16	3.19
Malaysia	3.38	2.54	23.39	3.63
Philippines	2.65	0.0	1.18	0.43

<sup>7</sup> Euro converted to USD using average December 2011 exchange rate.

Indonesia	2.62	4.04	21.74	1.67
Bangladesh	0.71	25.26	11.30	21.31

Source: [IMF, 2013](#)

### Estimates of International Public Finance for Coal

It is important to note that neither the OECD nor the IMF subsidy assessments include public international finance from multilateral development banks (MDB), export credit agencies (ECA), and bilateral development finance.

Since 2007, international institutions have financed **over \$60 billion in coal projects**, with MDBs accounting for at least \$12.8 billion and ECAs and national development finance accounting for over \$46 billion (see Tables 3 and 4 below). The international public finance figures should be considered incomplete because data is not available for many institutions and does not catch every coal project for every year. For example, coal funding taking place through financial intermediaries or policy lending is rarely accounted.

Table 3 below indicates that the MDB that provides the most coal funding is the **World Bank Group** with **\$6.1 billion** since 2007.

**Table 3. Multilateral Development Bank Coal Funding 2007-present**

Institution	Amount (USD billion)
World Bank Group	\$6.08
African Development Bank	\$2.84
European Investment Bank	\$1.58
Asian Development Bank	\$0.79
European Bank for Reconstruction & Development	\$0.66
Inter-American Development Bank	\$0.20
<b>Total</b>	<b>\$12.87</b>

Source: Databases maintained by [Oil Change International](#) (WB, IFC, MIGA, IDB, AfDB, and ADB, <http://shiftthesubsidies.org/>), and [CEE Bankwatch](#) (EBRD & EIB). For 2013, data were only available from the World Bank Group. All other MDBs are updated through 2012. These data likely underestimate amounts – for example, it does not capture all coal financing through policy loans and financial intermediaries.

Based on available data (see Table 4), the [Japan Bank for International Cooperation](#) (JBIC) ranks as the top public financial institution source of coal finance, accounting for nearly \$13 billion since 2007.<sup>8</sup> By country of origin, the most public coal funding comes from **Japan with \$17.2 billion, US with \$7.2 billion, China with \$6.1 billion, and Germany with \$4.9 billion**. It should be kept in mind that these figures are incomplete due to data limitations and do not include the domestic coal financing that some of these institutions provide.

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<sup>8</sup> In the last ten years, JBIC has supported at least 20 coal power projects in developing countries with a total capacity of over 20 GW. JACSES, Kiko Network and FoE Japan. <http://sekitan.jp/jbic/?lang=en>

**Table 4. Export Credit Agency and Bilateral Coal Finance 2007 to present**

Institution	Amount (USD billion)
Japan Bank for International Cooperation (JBIC)	\$12.93
US ExIm Bank	\$7.24
Nippon Export & Investment Insurance (NEXI-Japan)	\$5.28
China Development Bank	\$4.61
Euler Hermes	\$2.92
Korea Exim Bank	\$2.54
Russian Development Bank (VEB) <sup>9</sup>	\$2.50
China Exim Bank	\$2.45
Kreditanstalt für Wiederaufbau (KfW)	\$1.93
COFACE <sup>10</sup> (France)	\$1.71
Bank of China	\$1.23
Industrial & Commercial Bank of China (ICBC)	\$0.35
Korea Trade Insurance Corporation (K-sure)	\$0.30
Netherlands Development Finance Corp	\$0.12
UK Export Finance (UKEF)	\$0.09
Nordic Investment Bank (NIB)	\$0.07
<b>Total</b>	<b>\$46.27</b>

Sources: Data obtained from the databases maintained by Pacific Environment (US EXIM), EarthJustice (US EXIM), Natural Resources Defense Council (KfW, Hermes, JBIC, NEXI, JICA, KEXIM, K-SURE, China Development Bank, China EXIM, Bank of China, ICBC, FMO, COFACE, UKEF, NIB, & VEB-Russia), Japan Center for Sustainable Environment and Society (JBIC, NEXI, & JICA). Limited data for 2013 was available and only includes the US EXIM, JBIC, and VEB.

#### Incomplete Data on Coal Subsidies

It is important to keep in mind that the national, global, and bilateral coal subsidy and finance figures significantly underestimate the total amount of public assistance because the data are largely incomplete. Reporting on public finance and other forms of subsidies is highly inconsistent and not transparent. As a result, data are not available for many countries and finance institutions, and data do not account for all years.

## IDENTIFYING COAL SUBSIDIES

### Where to Begin Coal Subsidy Research

The first step in reforming public finance and subsidies is to identify and understand the extent of public support provided to the coal industry. The public assistance going to coal generally originates from two primary sources – national governments providing in-country support and international public finance. This section provides descriptions of the main sources of subsidies, guidance on where to look for information, and how to estimate the value of subsidies.

<sup>9</sup> Vnesheconombank

<sup>10</sup> Compagnie Francaise d'Assurance pour le Commerce Exterieur

In starting subsidy research, it is important to look for any subsidy estimations, data, and assessments of legal/tax codes that may already exist for a given country. Even if the campaign is focused on an individual coal project, it can be useful to obtain general information on coal subsidies to determine what the project is potentially receiving in public assistance.

Good resources to go to first include:

- OECD's "[Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels](#)" – provides a summary of each of the 34 OECD countries' budgetary and tax-related measures at the central-government level and for selected sub-national units of government. It includes an online database of quantitative estimates for a subset of producer and consumer subsidies for each country;
- IEA's [Coal Information report](#) – provides coal data for 39 countries, including historical and current data on production, consumption (by industrial end use), reserves, exports, imports, prices, and CO<sub>2</sub> emissions. This information is useful for estimating the value of certain subsidies, e.g., price gap methodology, social cost of carbon, and exploration tax exemptions;
- IMF's "[Energy Subsidy Reform: Lessons and Implications](#)" – provides several country case studies on fossil fuel subsidy reform and an appendix with oil, gas, and coal subsidies quantified as a percent of government revenue for every country.
- Country-based webpages of the multilateral development banks – provide information on projects and programs funded by the given MDB, including funding amount, project activities as well as other institutions' participation. In addition to project investment, be sure to also look at policy lending operations, technical assistance, financial intermediaries and research papers, which give information on potential investment incentives/subsidies and policy reforms;
- [Oil Change International's Shift the Subsidies Website](#) – tracks MDB- and ECA-subsidized finance, guarantees & policy lending to the energy sector, with project-by-project details including information on clean vs. fossil fuel funding, energy access, and exploration; national level subsidies to the energy sector;
- CEE Bankwatch Network's [Kings of Coal online toolkit](#) – provides guidance on how to get information on public finance of coal by MDBs, ECAs, and bilateral development institutions with a focus on institutions important for Turkey and Southeast Europe, including the development banks of China and Germany.

## Identifying National Subsidies for Coal

National and sub-national governments offer a range of incentives and public financing measures to support development and investment in the coal industry. These are described in depth in Table 5 below.

Most national-level fossil fuel subsidy reform efforts to date focus on consumer subsidies, which largely involve price controls on electricity and fuel. Often consumer subsidies are reported in government documents as direct budgetary expenditures, which make them easier to target for reform. Meanwhile, producer subsidies have largely remained under the radar. There is a critical need to understand and expose/provide transparency surrounding such subsidies.

With the carbon budget in mind, government subsidies aimed at exploration need urgent attention. One such subsidy is commonly referred to as the Earned Depletion Allowance. This tax provision often allows coal mining corporations to claim additional deductions against their income tax base. Those additional deductions can generally equal up to a certain percentage (e.g. 25%) of the company's resource profits and are specifically meant to encourage further exploration and development. The Earned Depletion Allowance has been widely applied in the US and Canada.

At the individual corporation level, there are also special tax concessions, regulatory exemptions, and other special arrangements – such as lower royalty rates made through stand-alone contracts/agreements including mining concession agreements, contracts of work (COW), and power purchase agreements (PPA) – which often supersede statutory laws.

#### **Box 1: Subsidized Coal through State-Owned Enterprises**

In addition to the below market rate loans, guarantees, and tax breaks provided broadly to the coal sector, state-owned coal mines, power plants, and associated infrastructure are further subsidized in ways not generally available to other enterprises, including: direct government expenditure on expansion projects/associated infrastructure, operations and maintenance costs, preferential land-acquisition, lax regulation,<sup>11</sup> and tacitly approved permits.

Subsidies originating from SOEs are extremely complex to evaluate. Even though some SOEs operate on a commercial basis and generate government revenue, they are still backed by government funding and create further subsidies through a selection bias for coal. Many SOEs continue to invest in coal simply because that is what they know – not because it is the best choice economically or socially for their country.

SOEs play a dominant role in the coal sector globally. State-owned coal mining companies are among the largest operators in key countries including China, India, Indonesia, Kazakhstan,<sup>12</sup> Poland, Germany,<sup>13</sup> and many other countries. The two largest coal-producing companies in the world are SOE's – China's Shenhua Group and India's Coal India Limited.<sup>14</sup> Additionally, state-owned power companies are the major actors behind many of the world's [planned new coal-fired plants](#) in China, Turkey, Indonesia, Vietnam, South Africa, Russia, Czech Republic, and many other countries.<sup>15</sup>

<sup>11</sup> For example "Coal India is operating 239 mines without environmental clearance," Economic Times, September 9, 2011, [http://articles.economictimes.indiatimes.com/2011-09-07/news/30123089\\_1\\_underground-mines-environmental-clearance-mining-activities](http://articles.economictimes.indiatimes.com/2011-09-07/news/30123089_1_underground-mines-environmental-clearance-mining-activities).

<sup>12</sup> Among the largest coal mining companies operating in Kazakhstan is the Kazakh state-owned Samruk Energo.

<sup>13</sup> In Germany, the two main utilities are also major coal mining companies and are both partially state-owned, RWE (Germany-local municipalities) and Vattenfall (Government of Sweden).

<sup>14</sup> Coal India is 90% government-owned and accounts for over 80% of India's coal production.

<sup>15</sup> Ailun, Yang, and Yiyun Cui. 2012. "Global Coal Risk Assessment: Data Analysis and Market Research". WRI Working Paper. World Resources Institute, Washington DC. Available online at <http://www.wri.org/publication/global-coal-risk-assessment> .

The following table provides detailed information on how to identify national subsidies that support coal:

**Table 5. National Coal Subsidies Template**

<b>1. Transfer of Funds and Liabilities</b>		
<b>Type of Assistance</b>	<b>Explanation/Estimation</b>	<b>Sources of Information</b>
Capital Expenditures	<p>Capital expenditures directly from the state budget to fund coal developments, such as power plants, mining operations, coal rail transport, transmission, etc. This also includes government-injected funds in the capital expenditures of state-owned utilities, power plants, and mining companies.</p> <p>Estimating subsidy amount may require determining the portion of capital expenditure going toward coal, for example the portion of new generation that is coal-fired for a given year.</p>	<p>Official tax-expenditure and budget documents from the Ministries of Finance, Natural Resources, Energy and Mining; gross output data from IEA; state-owned utilities, power, and mining companies' budgets and capital expenditure figures reported in the media; IMF/World Bank Medium Term Expenditure Reviews; World Bank power sector documents; Bloomberg</p>
Government Loans	<p>Government-provided soft loan facilities (equity- &amp; debt-based) to finance coal-related projects. Financing provided either directly to the private sector, such as independent power producers, or to state-owned enterprises (SOE). Some governments also have national development banks that fund domestic and international projects, such as the China Development Bank (see Box 2).</p>	<p>Budget documents from the Ministries of Finance, Natural Resources, Energy and Mining; national development bank websites; government sector development strategies, websites, presentations; investment and taxation guides by PwC, KPMG, and other consultancies.; individual coal project information and media reports; MDB project funding information</p>
Government Guarantees (publicly provided insurance)	<p>Government-provided loan or partial risk guarantees to finance coal-related projects either directly to the private sector or to SOEs. Government guarantees may come straight from the state budget or from a special government fund, such as a power, development, or infrastructure guarantee fund. Government-provided guarantees typically cover: failures to secure licenses, changes in regulations/laws, and offtake/payment obligations for SOEs. In some</p>	<p>Same as above, plus: government guarantee fund websites and documents; review project documents from World Bank IDA and IBRD guarantees, which require government counter guarantees (see below).</p>

	<p>instances, national development banks may also provide guarantees for domestic projects.</p> <p>One impact of government guarantees is that providing these guarantees can increase a government's fiscal liabilities. These liabilities are factored into sovereign credit risk ratings and debt prices, and hence can negatively affect the borrowing capacity of a country. Consequently, these guarantees transfer private company/investor risk onto the public.</p>	
State-owned Power and Mining Companies	In addition to government loans and guarantees to cover capital expenditures, SOEs may also get government funds to cover operations, maintenance, and transmission costs. This could also include preferential land acquisition and lack of regulation of SOEs.	State-owned Power and Mining Company budgets and websites; energy and mining government agency budgets and reports; media articles
Special Government Funds	This may take the form of a Coal Development and Exploration Fund, Infrastructure Finance Fund, Viability Gap Fund, or other similar entity that provides funding of construction costs, feasibility studies, or other funding support to improve the feasibility of coal projects.	Relevant government funds websites; investment and taxation guides by PwC, KPMG, and other consultancies; legislation and regulations covering the Funds' operations; media & company information on individual coal projects' funding sources
Project Preparation	This covers government funding and grants for feasibility studies, environmental and social impact assessments, and assistance in promoting projects to investors. If direct expenditure details are lacking, a subsidy estimate could be based on the typical cost to produce a given study.	Government sector development strategies, websites and presentations; investment and taxation guides by PwC, KPMG, and other consultancies; individual coal project information and media reports
Government Research & Development	This typically includes assistance and grants for carbon capture and storage (CCS), coal to liquids, coal to gas pilot projects, etc.	Same as above
Mine Closure & Rehabilitation	Often governments are left with paying for the costs associated with mine closure and rehabilitation for both private and state-owned operations.	Government and SOE budgets; media reports and World Bank documents on mine closure and rehabilitation costs
<b>2. Forgone Government Revenue</b>		
Type of Assistance	Explanation/Estimation Method	Sources of Information
Tax Exemptions	Includes VAT exemptions, import duty	OECD data; tax code; government tax

	exemptions, land tax exemptions, building tax exemptions, etc. To evaluate an exemption, such as VAT exemption, the subsidy could be estimated by reflecting a VAT on the coal consumed that would be consistent with the taxation of any other consumer good at the standard country VAT rate.	exemption cost estimates are often available when new legislation or regulations are under consideration (found in media); government sector or public-private partnership (PPP) investment frameworks and incentive schemes; regulations and legislation on sector or investment; investment and taxation guides by PwC, KPMG, and other consultancies
Tax Deductions / Credits	Includes income tax rate reductions, accelerated rates of depreciation, investment tax credit, R&D tax credit, mining waste deduction, advanced mine equipment deduction, energy purchases deduction, and exploration and prospecting deductions and credits	
Earned Depletion Allowance (Exploration)	This tax provision allows coal mining corporations to claim additional deductions against their income tax base. Those additional deductions can generally equal up to a certain percentage (e.g. 25%) of the company's resource profits and <u>are specifically meant to encourage further exploration and development</u> . Sometimes coal mining companies investing in the exploration and development of resources are able to claim depletion allowances in addition to other available deductions such as those specifically for exploration expenses and development expenses, thereby obtaining overall deductions in excess of the total amounts actually spent on exploration and development (e.g. In Canada, the OECD reports as much as 133% of these amounts).	
Lost Tax Revenue from Illegal Activities	When there is weak government control and monitoring or corruption surrounding coal sales and exportation, significant amounts of coal can go untaxed. The subsidy value can be estimated by comparing company or foreign country export and consumption data to government-reported data to determine untaxed amount, and then multiplying this unreported production amount by tax and	Government coal production and consumption data compared against OECD data on coal imports from country of origin and country consumption/production data; estimates of theft reported in the media from various sources; Extractive Industries Transparency Initiative (EITI) company production

	royalty rates.	data
<b>3. Provision of Resources/Goods or Services below Market Value</b>		
Type of Assistance	Explanation/Estimation	Sources of Information
Coal Mining Royalty Reduction	Royalty rates are often determined in individual contracts of work (COW) or other similar agreements, which can supersede statutory laws and provide royalty rates below the market rate or typical domestic rate. In addition to COW royalty reductions, a country may have an overall low royalty rate compared to other countries that should be considered below global market rates.	OECD data; individual project contracts – these often are difficult to access, but may be obtained through freedom of information requests; media reports – especially when the government is trying to renegotiate contract terms to raise royalty rates; Extractive Industries Transparency Initiative (EITI - country chapters); Otto, James; et. al. 2006. Mining Royalties: A Global Study of Their Impacts on Investors, Governments, and Civil Society. World Bank, 2006.
Power Line and Grid Infrastructure	Coal power plants often benefit from using government-supplied transmission and distribution infrastructure. The subsidy value is easier to estimate when a new coal plant is built and the government provides the new transmission lines. In addition, many MDB projects involve transmission and distribution projects.	Forthcoming
Coal Rail & Port Infrastructure	Many coal mine projects benefit from government-provided rail and port infrastructure.	Forthcoming
Under-pricing of Government Land	Many coal projects benefit from the use of government land provided below its market value or if the government is responsible for the land acquisition process, land owners may be receiving unfair compensation for their land.	Real estate price listings
Under-pricing of water	Mining, processing (e.g. washing), ash disposal, and burning of coal puts an enormous strain on water supplies, especially in regions where water is scarce. According to the World Bank, 2.8 billion people live in areas of high water stress. It is estimated that 2.3 cubic meters of water are withdrawn for every ton of coal mined. The price for water for coal projects	Pan et al., 2012. "A supply chain based assessment of water issues in the coal industry in China," Energy Policy 48, 2012

	needs to be compared to the reference market rate for the country/region.	
Land-use Control	Coal plant, mine, rail, port, and other project exemptions from protected areas, including forests, marine, and zoning laws. It may be difficult to put a value to this exemption, but it is nevertheless important to note.	Various government laws on protected areas, forests, and zoning; sector development strategies and laws; investment and taxation guides by PwC, KPMG, and other consultancies.; individual coal project information

#### 4. Income or Price Support

Type of Assistance	Explanation/Estimation	Sources of Information
Electricity Price Controls	This subsidy arises when government policies and/or programs set the price paid for electricity by consumers below the market price, typically with the government making up for the difference in price. Some governments report this subsidy figure in budget documents. When this is not available or needs to be verified the OECD and IMF, use the price gap analysis to calculate the subsidy value. This calculation measures subsidies as the difference between the reference price for electricity (see IEA reference price data) and the domestic price paid by households and firms.	OECD; IMF; World Bank; government budget documents often provide figures on consumer electricity subsidies; legislation and IEA electricity prices: <a href="http://www.iea.org/statistics/">http://www.iea.org/statistics/</a>
Fuel Price Controls	Same as above	Same as above
Below-Cost Power / Fuel Purchase Agreements	Utilities and governments sign contracts that lock in power purchase tariffs that are sometimes below cost or lower than other consumers pay. These agreements are usually for large industrial users – sometimes a lower rate to large consumers may be justified based on lower distribution costs, but this needs to be verified/appropriately justified. The subsidy would be calculated as the difference between the fair market rate and the below market rate for the electricity or fuel (e.g. coal supply for power plants, cement, or steel).	Individual power purchase agreements – these often are difficult to access, but may be obtained through freedom of information requests in some cases when they are signed with a government entity; media reports, especially when the government is trying to renegotiate contract terms; Revenue Watch's report, <i>Contracts Confidential: Ending Secret Deals in the Extractive Industries</i> : <a href="http://www.revenuewatch.org/publications/contracts-confidential-ending-secret-deals-extractive-">http://www.revenuewatch.org/publications/contracts-confidential-ending-secret-deals-extractive-</a>

		<u>industries</u>
Special Income Tax Treatment	<p>One example includes <i>Capital Gains Treatment of Royalties</i>. This tax provision allows individual owners of coal-mining rights to benefit from a more favorable capital-gains tax rate rather than the regular income-tax regime when receiving royalties. Another example is <i>Percentage Depletion of Mineral</i> - Under normal income-tax treatment, expenses that are capitalized into the basis of mineral properties would be recovered over time as output is extracted from the mines. Under <i>percentage depletion</i>, producers can, however, recover these costs by claiming as a depletion allowance a fixed percentage of gross income from the property. Over time, the sum of these deductions can be several times the original cost of the investment.</p>	<p>For more examples of special income tax treatment and valuation methodologies, see OECD, 2012. Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels:</p> <p><a href="http://www.oecd.org/site/tadffss/">http://www.oecd.org/site/tadffss/</a></p>

## 5. Negative Externalities

Type of Assistance	Explanation/Estimation	Sources of Information
Health: PM, SO <sub>2</sub> , NO <sub>x</sub>	<p>Health impacts from coal power plants and mining operations. Estimates in the US range from \$100 billion per year in a 2010 <a href="#">National Academy of Sciences report</a> to \$345 billion per year in a 2011 <a href="#">Harvard Medical School study</a>.</p>	<p>Greenpeace International modeled health impacts for individual coal projects and sector-wide using MSC-W modeling with meteorological data based on exposure-response coefficients, annual ambient air emissions concentrations, and data on the exposed population: Yushi, Mao, Sheng Hong and Yang Fuqiang, 2008. <a href="#">The True Cost of Coal</a>. Greenpeace. Available at: <a href="http://www.greenpeace.org/eastasia/PageFiles/301168/the-true-cost-of-coal.pdf">http://www.greenpeace.org/eastasia/PageFiles/301168/the-true-cost-of-coal.pdf</a>; Data for Ozone, Particulate Matter, NOx, and SO2 is available at <a href="http://www.epa.gov/airquality/urbanair/">http://www.epa.gov/airquality/urbanair/</a></p>
Health: mercury, lead, cadmium	Health impacts from coal power plants and mining operations.	Trasande et al. Trasande, L., P. Landrigan & C. Schechter. 2005. Public health and economic consequences of methyl mercury

		toxicity to the developing brain. Environ. Health Perspective. 113: 590–596; Greenpeace International
Health: Dust from coal trains	The <a href="http://www.hcec.org.au/">Hunter Community Environmental Centre</a> of Newcastle, Australia estimates that it would cost \$10,000 per wagon to cover coal wagons with fitted lids to reduce particle pollution up to 99%.  This externality estimate is based on the cost of pollution abatement, as opposed costs associated with health impacts, which might not be available.	<a href="http://www.hcec.org.au/">http://www.hcec.org.au/</a>
Climate Change: GHG emissions	The first step for calculating the value of GHG emissions externalities is to use an appropriate GHG emissions factor for CO <sub>2</sub> and methane (CH <sub>4</sub> ) for power plant and mining operations. A coal power plant should report CO <sub>2</sub> g/kWh or CO <sub>2</sub> lbs/MWh. If not available, as a proxy consider the average coal-fired power plant in the US puts out about 2,000 lbs CO <sub>2</sub> /MWh and newer, more efficient models emit on average 1,800 lbs CO <sub>2</sub> /MWh. Once you have the amount of CO <sub>2</sub> and CH <sub>4</sub> emitted multiply by a Social Cost of Carbon (SCC). SCC References: The IMF uses a SCC of \$34 per ton, derived from the work of the U.S. Interagency Working Group on Social Cost of Carbon. The UK government's latest calculation is a range of \$41-\$124 per ton of CO <sub>2</sub> , with a central case of \$83.	For GHG emissions: IPCC Guidelines for National Greenhouse Gas Inventories, 2006; GHG Protocol: <a href="http://www.ghgprotocol.org">www.ghgprotocol.org</a>  For carbon valuation or SCC: <a href="https://www.gov.uk/government/collections/carbon-valuation--2">https://www.gov.uk/government/collections/carbon-valuation--2</a> <a href="http://www.epa.gov/climatechange/EPAactivities/economics/scc.html">http://www.epa.gov/climatechange/EPAactivities/economics/scc.html</a>
Infrastructure Damage	Includes damages to roads, ports, bridges, etc.	Forthcoming
Crop Damage	Coal-fired power plant discharges have been found to negatively affect soil fertility and crop growth. One study found a 10 to 30% reduction in germination for pea and wheat crops (see Ajmal and Khan, 1986).	Ajmal, M. and Khan, MA. 1986. Effects of coal-fired thermal power plant discharges on agricultural soil and crop plants. <i>Environmental Research</i> , 1986 Apr; 39(2):405-17.
Security Provision	Use of military to protect coal interests	Forthcoming

## Identifying International Public Finance for Coal

While national governments are key conduits for public financing and subsidies to coal development, international finance also occupies a unique position of influence on the financing and policies promoting the development of coal. Coal development is supported through various international finance mechanisms including direct project finance and guarantees, policy and institutional reforms, technical assistance, and advisory services. This financing can come from multilateral development banks (MDBs) or bilateral finance, including export credit agencies (ECAs), bilateral aid, and international operations of national development banks.

In 2013, several MDBs and national governments adopted significant restrictions on public international financing of coal, including the [World Bank](#), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), and the governments of the [US](#), UK, [the Netherlands](#), and Nordic countries. The policies all restrict the international financing of coal power plants except in rare circumstances, including for the poorest countries that have no alternatives to coal. The [EIB's policy](#) further adds an emissions performance standard of 550g per kWh.<sup>16</sup> Overall, the policies only apply to power plants and not coal mining or other associated infrastructure.

The adoption of the cited policies are a critical first step and set an important precedent, however public pressure and monitoring will have to continue on international financing for coal, even in the institutions and countries cited. It will be necessary to watch what will pass as “rare circumstances” in which coal financing is approved, and policy lending, technical assistance, and financial intermediaries will need to be carefully assessed to identify and eliminate support for coal development (see section on International Campaigning for Subsidy Reform).

Further, a number of the countries that have not pledged to limit international coal financing provide substantial amounts of finance for coal, including Japan, China, Korea, Russia, and Germany.

**Multilateral Development Banks (MDBs)** include the World Bank Group<sup>17</sup>, which has global coverage, as well as regional development banks, such as the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Asian Development Bank (ADB), the Inter-American Development Bank (IDB), and the African Development Bank (AfDB). MDBs provide **assistance to governments and the private sector**. Some MDBs, like the EBRD, only support the private sector.

MDBs' shareholders or owners are its member governments. For example, the World Bank has over 180 member governments. All MDBs are backed by large sums of public money from member governments, which allows them to provide finance to governments and the private sector at lower interest rates and on better terms (e.g. longer tenors) than could be obtained from commercial lenders. These favorable financing terms constitute the subsidy.<sup>18</sup>

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<sup>16</sup> <http://bankwatch.org/news-media/blog/eib-finally-limits-coal-lending>

<sup>17</sup> The World Bank Group (WBG) is made up of five institutions: International Development Association (IDA), International Bank for Reconstruction and Development (IBRD) (the first two are collectively referred to as the World Bank and provide assistance only to governments), International Finance Corporation (IFC) (provides assistance only to the private sector), Multilateral Investment Guarantee Agency (MIGA), and the International Center for the Settlement of Investment Disputes (ICSID).

<sup>18</sup> Some MDBs, like the International Finance Corporation (IFC – the private finance arm of the World Bank) contend that they provide loans only at commercial interest rates and thus their funding should not be considered a subsidy. But, typically other MDB benefits, such as the need for longer tenor or the existence of substantial risks, still render the MDB's involvement critical to finance that could otherwise not be obtained. For example, financial models suggest that a change from a 5-year to a 10-year tenor could boost the debt service ratio – an index of financial strength – from 1 to 1.4, which is substantial enough to turn a

Recently, MDBs have begun to largely recognize the need to reduce consumer subsidies and their policy operations often support reforms to raise prices of electricity and fuels, while protecting the needs of the poor. However, the MDBs do not recognize their own contributions to producer subsidies, such as investment incentives and direct project finance. In some cases, the same [MDB policy operation](#) reduces consumer subsidies while creating producer subsidies.<sup>19</sup>

MDB support for coal takes many forms, including:

- **Direct Project Finance.** MDBs provide direct funding for coal projects through loans, grants, and equity financing. MDB direct funding supports coal projects including exploration, mining, production, rail lines, ports, power generation, power transmission and distribution systems, coal-bed methane capture, and rehabilitation and upgrading of coal power units. Direct funding for coal projects ranges from the tens of millions to billions of dollars (e.g., \$3.05 billion from the World Bank and \$2.5 billion from AfDB for Eskom's 4,800 MW Medupi coal-fired power plant in South Africa).
- **Guarantees for Projects.** Guarantees represent important catalysts for obtaining project finance. MDB guarantees provide insurance to cover the overall risk of an investment at a lower cost and longer tenor (typically for 15 to 20 years) than commercial insurance. The length of tenor for a guarantee is the period of time for which the project is covered by the guarantee. MDB guarantees help to extend the tenors on project loans, which can be a key limitation for large-scale coal projects if they are not long enough. Thus, MDB guarantees play an important role in a projects' ability to mobilize long-term commercial bank funding. MDB guarantees typically cover the risks of currency transfer restrictions, expropriation, war and civil disturbance, and breach of contract.

In addition, MDBs may support the creation and funding of [national government institutions that provide government guarantees](#) covering delays or failure to secure licenses, changes in regulations or laws, and offtake or payment obligations for state-owned enterprises.<sup>20</sup> These government guarantees transfer private investment risks to public risks. A transfer of private liabilities to public liabilities is a subsidy.

- **Policy Lending and Technical Assistance.** Through policy lending and technical assistance, MDBs influence policies, regulations, and institutions that alter the costs, benefits, and development preferences in favor of the coal sector. These activities typically focus on policy and institutional

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project from unfeasible to bankable. The debt service ratio (or interest coverage ratio) is very important from the lender's point of view. It indicates the number of times interest is covered by the profits available to pay interest charges. Thus, it is an index of the financial strength of an enterprise or project. The higher the debt service ratio the stronger the financial strength and the easier it is for a project to get finance. This information is from a 2010 World Bank Independent Evaluations Group Report: ["Climate Change and the World Bank Group, Phase I: An Evaluation of World Bank Win-Win Energy Policy Reforms"](#).

<sup>19</sup> See OCI, 2013. World Bank Accelerating Coal Development in Indonesia. Oil Change International, September 2013. Available at: <http://priceofoil.org/2013/09/25/world-bank-accelerating-coal-development-indonesia/>

<sup>20</sup> For example, the World Bank and ADB's support to create the Indonesian Infrastructure Guarantee Fund. For details see: OCI, 2013. World Bank Accelerating Coal Development in Indonesia. Oil Change International, September 2013. Available at: <http://priceofoil.org/2013/09/25/world-bank-accelerating-coal-development-indonesia/>

reforms<sup>21</sup> that can result in the type of national level subsidy described in the National Government Subsidy section.

For example, several MDBs currently are promoting investment frameworks for **Public Private Partnerships** (PPPs). In Indonesia, the establishment of PPPs was a central element of recent policy lending operations of the World Bank and ADB.<sup>22</sup> The PPP investment framework supported by the MDBs, which the Indonesian government adopted into law, provides a number of government subsidies for private investors in the power sector.<sup>23</sup> Since inception of the Indonesian PPP framework in 2006, only three power sector PPP projects have been tendered and they were all for coal power.<sup>24</sup>

- **Financial Intermediaries.** MDBs are increasingly making investments, including in coal, through financial intermediaries. The World Bank Group provides around \$8 billion or more of investment annually through financial intermediaries. Financial intermediary operations represent over 40% of the IFC's private sector investments, which has a major influence on MDB operations as a whole, as the [IFC represents one-third](#) of overall funding from development finance institutions going to the private sector in developing countries.<sup>25</sup>

In a financial intermediary arrangement, the MDB provides loans or equity financing to an entity such as a local bank, a private equity fund, or a special government-managed fund, such as an infrastructure development fund. The financial intermediary then passes on the MDB's funds to various investment projects, including coal.

Consequently, MDB funds are very likely supporting coal through financial intermediaries. However, unlike direct MDB project investments, there is no information publicly available on these individual sub-project investments, making it difficult to track what ultimately happens to MDB funding through financial intermediaries. The extent to which coal is assisted through these activities is thus unknown. The World Bank and ADB have provided funding and technical assistance for the creation and operation of government-owned infrastructure funds in India and Indonesia that have in turn funded coal projects. CSOs have demanded more transparency on financial intermediary lending, but thus far the MDBs have not been forthcoming.

**Export credit agencies (ECAs)** provide government-backed loans, credits, and guarantees to corporations from their home country working internationally (for details on guarantees, see MDB discussion above). ECAs provide public financial backing for risky projects, including coal, which might otherwise never get off the ground. ECAs are also a major [source of national debt in developing](#)

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<sup>21</sup> For example, sector governance, budget expenditures, energy pricing/tariffs/taxes, subsidies, contract models, licensing, mining cadaster systems, investment frameworks, and social and environmental policies.

<sup>22</sup> The initiatives were part of the World Bank's \$850 million, four-year (2007-2010) Infrastructure-Development Policy Loan series and the ADB's \$880 million (2006-2010) Infrastructure Reform Sector Development Program series. The Government of Japan, through JBIC, also co-financed the program with \$300 million.

<sup>23</sup> The Indonesian PPP investment framework includes: VAT tax exemptions, import duty exemptions, income tax rate reductions, accelerated rates of depreciation, land tax exemptions, building tax exemptions, and guarantees.

<sup>24</sup> Central Java Ultra Supercritical Coal Fired Power Plant (2 X 1,000 MW), South Sumatera 9 – Mine Mouth Coal Fired Power Plant (2 X 600 MW), and South Sumatera 10 – Mine Mouth Coal Fired Power Plant (1 X 600 MW). BAPPENAS, 2013. PPP Project Achievements and Future Pipeline. Dr. Ir. Bastary Pandji Indra, Director for PPP Development, National Development Planning Agency (BAPPENAS) Republic of Indonesia. PPP Infrastructure Investment Forum, Tokyo, January 22, 2013.

<sup>25</sup> IFC 2011 Annual Report:

[http://www.ifc.org/wps/wcm/connect/3335f50048452525b9d9fb9a28555046/AR2011\\_Chapter1.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/3335f50048452525b9d9fb9a28555046/AR2011_Chapter1.pdf?MOD=AJPERES)

countries.<sup>26</sup> Most industrialized nations and emerging economies have at least one ECA, which is usually an official or quasi-official branch of their government. Export credit agencies that have provided finance for coal projects since 2007 include: Japan Bank for International Cooperation (JBIC), Nippon Export & Investment Insurance (NEXI-Japan), Export-Import Bank of the United States (US ExIm), China Export Import Bank (Chexim), Euler Hermes (a private company mandated to manage the official export credit guarantee scheme on behalf of the German government), Korea Export-Import Bank, Korea Trade Insurance Corporation (K-sure), COFACE (France), and UK Export Finance (UKEF).

**Bilateral finance.** In addition to the ECAs, many countries have bilateral finance, including development finance and aid agencies, international arms of national development banks, or trade promotion agencies that may provide financing for coal. Some of the bilateral development finance institutions that play a significant role in the coal sector include China Development Bank, Industrial & Commercial Bank of China (ICBC), Bank of China, Kreditanstalt für Wiederaufbau (KfW) in Germany, and the Russian Development Bank (VEB).

#### **Box 2. Background on Bilateral Finance Institutions Important to Coal Development**

**China Development Bank (CDB)** – [CDB](#) and the [Export-Import Bank of China](#) (Chexim), along with the Agricultural Development Bank of China, are “policy” banks. These policy banks were established in 1994 to take over the government-directed spending functions of the big four state-owned commercial banks (ICBC, Bank of China, China Construction Bank and the Agricultural Bank of China). The policy banks are responsible for financing economic and trade development and state-invested projects and support the policies laid out in the State Council’s Five-Year Plans.

**Industrial & Commercial Bank of China (ICBC) and the Bank of China** – [ICBC](#) and [Bank of China](#) are two of the big four China state-owned commercial banks. The Bank of China and the ICBC specialize in foreign exchange transactions and trade finance. Both work jointly with Chexim to provide export credit insurance and low-cost finance for exports. In addition to various types of guarantees, the Ministry of Finance and the Ministry of Commerce delegate Bank of China to exclusively undertake the letter of guarantee business under a special central government fund for overseas construction.

**Kreditanstalt für Wiederaufbau (KfW)** – KfW banking group is Germany’s public development bank which finances projects inside and outside the country. According to its [website](#), KfW helps the federal government implement its goals in international cooperation with developing and emerging countries. KfW’s requisite funding comes from the federal budget and its main client is the Federal Ministry for Economic Cooperation and Development (BMZ). In addition, the European Commission and the governments of other countries also commission KfW to implement their development cooperation programs and projects. Recently, KfW finally [started to publish information about its projects](#).<sup>27</sup>

**Korea Trade Insurance Corporation (K-sure)** – Founded in 1992, [K-sure](#) provides export and import insurance in South Korea and internationally. The insurance system is a policy tool to facilitate financing for Korean importers and exporters. Abroad, it provides several types of risk insurance

<sup>26</sup> <http://www.eca-watch.org/>

<sup>27</sup> KfW project information is available at: <https://www.kfw-entwicklungsbank.de/Internationale-Finanzierung/KfW-Entwicklungsbank/Projekte/Projektdatenbank/index.jsp>

including a specific overseas natural resources development fund insurance. K-sure was formerly known as Korean Export Insurance Co. and changed its name to Korea Trade Insurance Corporation in 2010 to include an import insurance scheme which aims to secure commodities and natural resources, like coal, that are deemed vital to South Korea's economy.

**Russian Development Bank (VEB)** - The “Bank for Development and Foreign Economic Affairs” or [Vnesheconombank \(VEB\)](#) is a Russian state-owned bank. VEB extends government credits and guarantees for projects inside Russia and abroad with payback periods exceeding 5 years and total value exceeding 2 billion rubles (or approximately 58 million USD). In addition, **CJSC Roseximbank** and the **Export Insurance Agency of Russia (EXIAR)** are responsible for extending government guarantees to support exports. VEB is Roseximbank’s majority shareholder and EXIAR’s sole shareholder. It is very difficult to obtain information on VEB’s finance activities. [Press releases on the VEB website](#) and general searches involving VEB, Roseximbank, and EXIAR are good places to start to find information.

Some institutions provide a mix of services, and ECAs may provide bilateral development finance in addition to export credits. For example, JBIC provides bilateral aid in addition to financing overseas investments by Japanese companies. National development banks, such as China Development Bank and Russian Development Bank (VEB), provide domestic financing as well as international financing. There are also bilateral aid agencies such as UK DfID and USAID that may provide loans, grants, policy lending, and technical assistance.

The following table provides detailed information on how to find financing provided internationally to support coal:

**Table 6: International Public Finance for Coal Template**

1. Multilateral Development Banks		
Type of Assistance	Explanation/Estimation	Sources of Information
Project Finance	Loans, grants, and equity financing for coal projects, including exploration, mining, power plants, rail lines, ports, power transmission and distribution systems, coal-bed methane capture, and upgrading (lifetime extension) of coal power plants.	Oil Change International, <a href="#">Shift the Subsidies Database</a> : <a href="http://shiftthesubsidies.org/">http://shiftthesubsidies.org/</a> ; MDB website project databases and MDB country webpages, which contain proposed projects; for upcoming World Bank projects under preparation check the Bank’s Monthly Operational Summary; other CSO sources include: <a href="#">CEE Bankwatch</a> (EIB & EBRD); and <a href="#">Bank Information Center</a> .
Guarantees	Most MDBs provide guarantees. At the World Bank, guarantees are provided by IDA, IBRD, IFC, and the Multilateral Investment Guarantee Agency (MIGA). <u>It is important to note that IDA- and IBRD-provided guarantees require government counter-guarantees,</u> which need to be accounted for in the national subsidies (see government guarantees above) and increase of contingent fiscal liabilities.	

Policy Lending & Technical Assistance/Advisory Services	Often policy lending programs and technical assistance may involve assistance across the energy sector or to multiple sectors (also see main text on MDBs policy lending). In such cases, it will be necessary to determine how much public assistance should be counted toward coal. For the World Bank programs, the WB provides its own estimate – when pulling up operations from the projects database, click on top menu “details” where the Bank reports the percentage of the program that is aimed at various sectors. For projects aimed at the energy sector in general, the percentage of the country’s planned new generation coming from coal could be used to estimate amount of MDB program funding going towards coal.	Same as above.
Financial Intermediaries	Look for MDB loans and equity finance to the financial sector for banks, holding companies, and funds, including private equity funds. Go to the bank or funds website to check for a list of investments or projects. Look especially for banks and funds that have the words “development”, “energy”, “natural resources”, “power”, “export”, and/or “infrastructure” in their titles. Also, public-private partnership funds may indicate coal involvement.	MDB website project databases and MDB country webpages – look at projects in the financial sector. The MDB will typically list the sectors that are targeted by the FI; individual FI websites.

## 2. Export Credit Agencies and Bilateral Finance

Type of Assistance	Explanation/Estimation	Sources of Information
Project Loans	Loans, grants, and equity financing for coal projects including exploration, mining, power plants, rail lines, ports, power transmission and distribution systems, coal-bed methane capture, and upgrading (lifetime extension) of coal power plants.	ECA and bilateral agency websites and press releases; general web search on name of coal project or country along with ECA or development bank name (see Table 7 for list of institutions); useful international news outlets include: <a href="http://www.tradefinancemagazine.com">www.tradefinancemagazine.com</a> ; <a href="http://www.business-standard.com">www.business-standard.com</a> ; <a href="http://www.reuters.com">www.reuters.com</a> ; Banktrack.org; for US ExIm & OPIC see Pacific Environment & Earth Justice; for JBIC,

		JICA, and NEXI see Japan Center for Sustainable Environment and Society
Guarantees	Loan or partial risk guarantees to finance coal related projects either directly to the private sector or to state-owned enterprises.	Same as above.
Policy Lending & Technical Assistance	Often policy lending or technical assistance provided by ECA or bilateral agency is part of a bigger MDB-led program (typically by the World Bank or ADB). As such, sometimes the ECA/bilateral agency finance for such activities is only listed on the World Bank's or ADB's documents under the financials section.	ECA and bilateral agency websites and press releases; general web search on name of coal project and country along with ECA or bilateral agency name (see Table 4 for list of institutions); World Bank policy lending and technical assistance documents – check financial section for each in projects database.

## CAMPAIGNING ON COAL SUBSIDIES

### Why Campaigning on Subsidies and Public Finance for Coal is Key

At the local level, large-scale coal projects are most often backed by significant subsidies and in many cases public finance and/or guarantees directly make the project financially viable. Taking that support away can mean the difference between a coal project moving forward or being stopped. Taken collectively, the elimination of significant amounts of subsidies and public finance for coal at the national and international level can help shift investments towards clean energy.

A large majority of coal projects globally are financed by a web of public (subsidized) finance and private bank/investor contributions. Large-scale coal projects are associated with high investment costs, high risks (e.g., regulatory, social, and environmental), and take a relatively long time to build. In order for coal projects to be viable they need large amounts of long-term finance (10-15 year repayment periods) and insurance (e.g. government loan guarantees) to reduce the substantial costs and risks.

Such long-term finance and insurance is often not available from the commercial sector, especially in developing and transition economies. Public finance and other subsidies are often the key factors determining whether a coal project gets built or not. Public finance provides capital at lower interest and/or at longer tenor (repayment periods), making coal projects more affordable and giving them the ability to secure further finance. Even when commercial finance packages are available, they are still most often backed by public insurance/guarantees and other forms of subsidies.

A recent assessment on public assistance to coal in Indonesia found that the vast majority of the large-scale coal plants (600 MW and larger) built since 2006 were made possible through public finance and guarantees.

Adding the subsidies lens, i.e. the consideration of the use of public money, to any coal campaign adds to the available toolbox to fight a project, and it can also broaden the intervention opportunities and gain support from actors who previously were not concerned or did not understand their connection with coal development issues.

When national coal subsidies can be eliminated or when international finance institutions can be taken off the table for coal finance, the playing field for coal development begins to change. National subsidies often disproportionately favor conventional energy, and shifting public support away from fossil fuel technologies can be incredibly helpful for investments in increasingly cost competitive renewable energy options.

Public financing often supplies a ‘stamp of approval’ for financially and socially risky projects. The commitments from major multilateral development banks and several countries to stop international finance for coal projects except in limited circumstances begins to close doors to the coal industry more broadly. In the short term, the coal industry will look towards financing from institutions that have not committed to move away from coal, but if the number of governments and institutions saying no to coal spreads, this would create a real obstacle to future coal development.

Additionally, less public money for coal also means more public money is available for other uses – for instance, for clean energy solutions and other services.

## Targeting Subsidies and Finance to Stop a Coal Project

Many anti-coal campaigns are at the individual power plant, mine, or rail project-level. This is often because the affected population and issues are more tangible than government-wide policies or actions resulting in subsidies. There are many [existing resources](#) and [information](#) to [provide guidance](#) on this front.<sup>28</sup>

This section aims to provide guidance on enhancing project campaigns by adding the coal subsidies angle to those efforts. As discussed throughout this toolkit, public finance and other subsidies are key to the feasibility of a majority of large-scale coal projects.

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<sup>28</sup> See [www.endcoal.org](http://www.endcoal.org); <http://content.sierraclub.org/coal/> and <http://www.greenpeace.org/international/en/campaigns/climate-change/coal/>

### **Use Information on Subsidies and Finance to Slow Down the Project**

- One of the key ways that subsidies and finance can be used to stop a project is to slow it down. Time is money, and the more wrenches thrown to disrupt and delay the project process the more chances the project will be stopped. Investors want their money to make more money. If investments are committed to a project that is not progressing, it is not making money and investors will seek to put their money somewhere else. Delaying the project's financial closure can kill a project.<sup>29</sup>
- Challenging the subsidies supporting a project and thereby getting the public to demand more accountability can directly take away necessary capital and guarantees, or slow down public financing process the process to scare away investors. Threatening funding and slowing down financial closure are key tools to stopping projects.

### **Ground Project-Based Subsidy and Finance Work in a Campaign at the Local Level**

- Before beginning subsidy work to target a project, make sure that the local issues around the project are clear and that relationships have been established with local communities. For instance, it is essential to establish a strong relationship with and a clear understanding of the needs and concerns of the project-affected communities. When possible, a campaign should build capacity of the project-affected community leaders to understand the role of public finance and other subsidies in the coal project. Even when national governments ignore and intimidate the communities, their voices are often listened to by the international actors and media.

### **Identify Subsidies and Finance Supporting a Coal Project**

- The first step to utilizing subsidies in a coal project campaign is to determine the source and amount of subsidies/public money supporting the project. The initial assessment can be approached in the same manner as the national government subsidy assessment, but at the project level (see Identifying Coal Subsidies section). [Coal Swarm](#) may also have good resources on specific coal projects.<sup>30</sup>

### **Choose Which Subsidies and/or Financing to Target**

- A particular subsidy may be key to making a project financially viable. If a subsidy that has been identified seems particularly large or important, it may be a good point of intervention. This could be public money, guarantees, low cost land, or tax breaks.
- A particular subsidy may be scandalous or have caused problems in the past. If a certain type of subsidy is particularly contentious or has made news in the past, a new project or recipient could present a good opportunity to fight against it.
- Financing may not yet be approved. It is much easier to stop finance from a public institution before it is approved. If you have found out that a national fund, a development bank, or a bilateral agency is considering but has not yet approved a certain project, this can make it a stronger target.

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<sup>29</sup> Financial closure for greenfield projects is defined as a signed, legally binding commitment of equity holders or debt financiers to provide funding for the project. This funding would account for a majority of the project costs, thereby securing construction of the facility. Financial closure is dependent upon acquiring the necessary permits, insurance/guarantees and project assets, such as land.

<sup>30</sup> See <http://coalswarm.org/>

- Financing may be from an institution with strong safeguards or finance criteria. When particular banks, such as the World Bank, are involved in a project, even indirectly, it may be possible to trigger social and environmental reviews when the project is particularly contentious. Other MDBs and bilateral agencies also have social and environmental guidelines that may trigger a project review.

### **Strategies and Tactics**

- **Identify who has the power to affect the subsidy or financing.** The power to change the subsidy or financing supporting a project is different depending on the support in question. Identify which government officials, international governments, or institutions are able to influence the target subsidy.
- **Identify what can be done to slow down the financing.** Getting a public institution to cancel or not approve its support for a coal project can undermine and disrupt a project's finance package.
  - **Working for a ‘no’ on MDB financing:** If multilateral banks are involved, work with groups internationally to raise awareness of project problems in the lead up to any board votes on project finance. All projects, operational policies, and country and sector strategies at the MDBs need to obtain executive board approval. Thus, it is important to campaign well in advance of Board approval dates as it is easier to change or stop a policy or project before it gets approved. For upcoming World Bank projects under preparation, check the Bank’s Monthly Operational Summary. At the very least, work to ensure that the US, UK, Netherlands, and the Nordic countries vote “no” on the project (i.e., not simply abstain) and encourage other governments to do the same.
  - **Pressuring international governments to decline or withdraw bilateral funding:** If bilateral finance is involved or being considered, work with groups internationally to pressure those institutions not to fund the project or to withdraw funding.
  - **Triggering international safeguards:** Often when international finance is involved, the project must be in compliance with social and environmental safeguards/performance standards of the institution financing the project. If these safeguards are not met, the finance institution can be asked to review the project or to suspend finance. By requiring the project to provide evidence of compliance with IFI policies, the project process can be slowed down, sometimes pushing back deadlines on land acquisition, environmental permits, and other key steps which can push back financial closure and possibly result in investors pulling out of the project.
  - **Pressuring national government finance through international institutions.** Sometimes, international institutions – particularly the World Bank and ADB – have a role in setting up national funds that back coal projects, particularly in emerging economies and developing countries. If this is the case, the national institution may have de facto international standards that can be used as described above. See Box 3 on the Central Java Power Plant.
  - **Demand accountability.** All of the MDBs have accountability and/or grievance mechanisms, such as the World Bank’s Inspection Panel, that are charged with ensuring the institution’s compliance with its operational policies and social and environmental performance standards and safeguards. Project-affected citizens can file complaints with these mechanisms, which in some cases have proven useful to delay or improve

projects and offer a cheap alternative to expensive court cases. Many CSOs have experience filing such complaints. See the cases involving the [Tata Mundra coal power plant](#) in India and the [Eskom Medupi coal power plant](#) in South Africa.

- **Raising awareness to increase public pressure:** Consider how to best expose the use of public money for the project. Exposing the public funding can help gain more public support to oppose the project from actors who previously did not feel a connection or concern.
- **Pick appropriate arguments for the audience.** Depending on the subsidy or financing targeted, and who the decision makers are, different arguments may be useful. National level officials may be concerned with:
  - Money going to the project conflicting with support for other initiatives
  - Project objectives not being met
  - How the money could be used effectively in other ways

The international finance community may be sensitive to arguments like:

- Social and environmental concerns around the project
- The climate impact of the project in light of institutional or global climate goals
- The project will not satisfy their stated mission and various pledges on sustainable development, poverty reduction, and energy access

For a detailed discussion on strategic arguments against coal subsidies, please see section below.

### Box 3: Indonesia: Targeting Subsidies and Public Finance in Project Campaigns

**Central Java Coal Power Plant** – Indonesian groups, including Greenpeace SE Asia, Indonesian Legal Aid Foundation, and local communities, are campaigning against the Central Java Coal Power Project (a 2,000 MW plant). The local campaign has focused on many issues including, *inter alia*, the government of Indonesia's (GOI) non-compliance with environmental impact assessments, the project's exemption from a protected marine area, lack of consideration for fishermen and farm laborers, and intimidation involved in the land acquisition process. A further strategic angle and international attention have been gained by exploring the public finance and subsidies involved in the project. As it turns out, the World Bank, ADB, and JBIC are all participating in the project.<sup>31</sup>

Through [policy lending](#), the [World Bank](#) and [ADB](#) supported a list of investment incentives and tax breaks, for the new public-private partnership (PPP) power plant. In addition, through a financial intermediary (FI) – the Indonesian Infrastructure Guarantee Fund – a government guarantee was provided to the Central Java project. Local resistance and campaign efforts so far have succeeded in pushing back the financial close deadline for two consecutive years. In addition, international campaigns targeted at the World Bank and JBIC have also helped to slow down the project by demanding investigations into the project's compliance with World Bank and JBIC social and environmental safeguard policies. Moreover, the Central Java Coal Power Plant has put a spotlight on how policy lending and FIs can promote coal development. World Bank campaigners are using this case to demand stringent safeguard policies for the World Bank's policy lending operations, which are currently significantly weaker than safeguards for project lending.

**Coal Mining Licenses** – Indonesian groups, including WALHI, are demanding that the South Sumatra Government revoke the licenses of 31 [coal mining companies due to unpaid taxes](#). These 31 companies do not have a tax identity number and thus, have not paid taxes amounting to an estimated US\$9 billion over the past three years. WALHI further points out that many of these and other mining permits are in conflict with protected and conservation forest areas – representing exemptions to land use control policy – a further issue that needs to be rectified whether or not the company has paid taxes.

For other examples of targeting public finance to stop coal projects, please see: [IFIs pull out of Turkish coal project - NGO pressure integral](#)<sup>32</sup> and [Bangladesh, Phulbari Coal Project](#).<sup>33</sup>

## Campaigning on National-Level Subsidies to Coal

National and sub-national governments offer a range of incentives and public financing measures to support investment in the coal industry. Other countries or multilateral institutions may also offer

<sup>31</sup> See Annex 2 and OCI, 2013. World Bank Accelerating Coal Development in Indonesia, September 2013. Available at: <http://priceofoil.org/2013/09/25/world-bank-accelerating-coal-development-indonesia/>

<sup>32</sup> <http://bankwatch.org/bwmail/59/ifis-pull-out-turkish-coal-project-ngo-pressure-integral>

<sup>33</sup> <http://www.accountabilityproject.org/article.php?list=type&type=43>; and [http://www.banktrack.org/manage/ajax/ems\\_dodgydeals/createPDF/phulbari\\_coal\\_mine](http://www.banktrack.org/manage/ajax/ems_dodgydeals/createPDF/phulbari_coal_mine)

incentives for coal production within a country. These measures can broadly support the industry, drive expansion, and can also make the economics for specific projects viable. Working to change a subsidy policy that affects the coal sector across the board can be extremely helpful to coal campaigning in the long term because it means that far fewer coal projects will be proposed to begin with.

### **Identify National Subsidies and Finance to Coal**

- The first step to targeting national subsidies to coal or international finance coming to coal in a particular country is to determine the source and amount of subsidies and public money supporting coal. There are several country-level assessments that have already been completed, please see the Coal Subsidies Resources by country section below. Or, use the information in the Identifying Coal Subsidies section of this report to determine national level subsidies.

### **Choose Which Subsidies to Target**

- There are a number of factors to consider in determining which national subsidies or finance to target for a campaign effort. Although opportunities will vary by country, and the best points of intervention will depend on the political situation, the following considerations will be useful for any country context:
  - **Are the subsidies among the largest in the country, either by value, amount of finance they leverage, or support for key infrastructure requirements?** For instance, particular publicly subsidized loans and guarantees may turn out to be the key financing components for proposed power plants. Increased coal production may be driven by low royalty rates, tax incentives, and/or underpriced exports. Subsidized rail and ports may represent key infrastructure requirements for increasing exports. A particular international institution or bilateral agency may be providing significant assistance to a number of projects in the country.
  - **What subsidies are driving the most industry expansion?** Determine whether any subsidies support the expansion of the coal industry, either through increased production, mining, or exports, exploration incentives, or building and expanding coal power plants. Government plans for industry expansion are typically made public in country economic development strategies or sector-wide strategies for power, mining, and infrastructure, and subsidies often exist or are created to support these plans. MDB country strategy documents are also a good source of information on future development plans. Important government initiatives and supporting policies to watch for include:
    - Development strategies/investment plans (power, mining, infrastructure)
    - New Regulations, including privatization, public-private partnerships (PPP)
    - Taxation and royalty rates
    - Contract and concession schemes – terms can supersede statutory laws
    - Investment incentives
    - Land acquisition process
    - New governmental agencies or funds with powers to grant exemptions and benefits

- **What are the most egregious and socially unpalatable subsidies?** Consider if any subsidies are particularly outrageous and related to issues that would cause public outcry, such as large amounts of illegal, i.e. untaxed, exports due to corruption or lax government oversight; lower royalty rates or electricity tariffs for large companies; or any exploration subsidies, which conflict with the carbon budget.
- **Is coal support coming from MDBs or bilateral finance that has coal lending restrictions or strong social and environmental policies?** In addition to projects, international finance may be supporting the country's coal development plans through policy lending, technical assistance, advisory services, or direct project investments. If international finance is involved, there may be additional leverage to affect that support, as international involvement can broaden the scope and increase international support for the campaign.
- **What are the most likely subsidy (subsidies) to be eliminated?** Choose subsidies that are less politically challenging, which will likely be producer subsidies instead of consumer subsidies. If consumer subsidies are targeted, it will be important to assess impacts on the poor and provide safety net measures and tariff structures that protect the poor's access to affordable electricity and fuel.

## Strategies and Tactics

- **Identify those with the power to change the subsidy.** In building a campaign to eliminate coal subsidies, it is essential to identify the groups or individuals who have the power to eliminate the subsidy, including the government ministry or agency that is responsible for the targeted subsidy (e.g., Ministry of Finance, Ministry of Mines/Energy, SOEs, etc.); important political actors who could become political champions of the cause (parliamentarians, governors, or mayors); and outside actors that have influence on the government and sometimes are the decision-makers on certain policies, e.g. International Monetary Fund (IMF).<sup>34</sup> Note however that the use of outside actors can be tricky or inappropriate depending on the institutions and the country context.
- **Identify individuals or groups who can influence the decision makers.** Decision-makers are influenced by public pressure and the media, which means the campaign needs to focus on messaging and arguments that speak to this audience and moves them to take action. Sometimes outside actors such as foreign governments (e.g. larger donor countries or regional trading partners), international institutions (e.g. United Nations), or a coalition of local and international CSOs can be a big influence on decision-makers. Sometimes it may be useful to have influential or respected individuals carry a message. It should be kept in mind that who delivers the message can be just as important as what the message says.
- **Identify opportunities for activities or media pushes.** In order to get the most media and public attention to the campaign or have the best chance of affecting policies, public activities (e.g., protests, petitions) and report releases should be timed to take place ahead of or during strategic events, such as:
  - Awarding of new contracts or concessions (offer a counter to industry demands)

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<sup>34</sup> The IMF does not support fossil fuel subsidies, see IMF, 2013. Energy Subsidy Reform: Lessons and Implications.

- National and local elections
  - Voting on or proposing of new regulations
  - Announcement of or consultation on development strategies
  - Industrial accidents or scandals
  - G-20, APEC, UNFCCC meetings (highlighting international commitments)
- **Pick appropriate arguments against the subsidies.** It is important to increase the public understanding of subsidies supporting the coal industry and who it benefits. As part of this understanding, it is important to communicate the public costs of coal subsidies and the benefits to getting rid of them, such as better and cleaner energy alternatives and increased government budget for social spending. Just as the specific subsidies to be targeted depend on the country context so will the arguments selected to combat them. In some countries the strongest argument against public assistance to coal might be climate change. For other countries, it may be more important to emphasize cleaner energy alternatives for the poor. Strong arguments can be made on several fronts including:
  - Pollution/public health
  - Resource scarcity
  - Energy access for the poor
  - Employment creation
  - Best use of public funds
  - Climate change
  - International commitments to phase out fossil fuel subsidies

For a detailed discussion on strategic arguments against coal subsidies, please see section below.

#### **Box 4: Success on Exploration Subsidies in Australia**

The [Paid to Pollute campaign](#) represents a coalition of over 20 civil society organizations in Australia campaigning to eliminate fossil fuel subsidies. In 2013, the campaign scored an important victory by getting [mining exploration deductions removed](#) from the federal budget, which will save \$1.1 billion over four years.<sup>35</sup> Paid to Pollute provides great examples of many tactics important to campaigning on subsidies:

**Best use of public money** – By identifying and quantifying the exploration subsidy, the campaign effectively used the figure of \$1.1 billion in taxpayers' money for exploration deductions to catch the attention of the public and government actors. In addition, the campaign used the victory on this subsidy to highlight the missed opportunity to eliminate the government's huge fuel tax credit (which is also significant to mining) pointing out that it cost AU\$5.9 billion in 2013-14, which is half of the government's total spending on schools. The campaign continues to make the point that such subsidies come at the "expense of nation building projects that are still lacking funds."

**Public pressure** – The campaign highlights the fact that cutting the mining subsidies are supported by the public. As evidence, the campaign uses [polling](#) conducted for Market Forces in January 2013 showing 64% of Australians were opposed to the mining industry's fuel tax credits, with the highest opposition (72%) found in Queensland, the largest coal exporting state in Australia.

**Climate change and pollution** – The point of the environmental impacts of these subsidies is clearly made starting with the very clever name of the campaign – Paid to Pollute. In addition, the campaign points out that despite the progress brought by the decision to reduce the exploration subsidy, there still exist four major fossil fuel subsidies that the government must cut in order "to consolidate Australia's transition to a low carbon economy and protect taxpayers' funds by ending wasteful and polluting fossil fuel subsidies."

**Strategic timing and international commitments** - The Paid to Pollute alliance has vowed to continue campaigning against fossil fuel subsidies in the lead up to the 2014 G20 meeting, which Australia will host. As Chair, Australia may find it difficult to justify providing among the highest levels of producer subsidies of the G20 nations, given that the group has collectively pledged to phase out fossil fuel subsidies.

### **International Campaigning for Subsidy Reform and Transparency**

#### **Campaigning to End International Public Finance for Coal**

International public finance – through multilateral development banks (MDBs) and bilateral finance – provide incentives for coal through direct financial assistance, policy support, and other means. These institutions offer an interesting target for campaigning not only on the project level, but also on the policy level, because there is already significant public pressure and scrutiny on them.

<sup>35</sup> <http://www.acfonline.org.au/news-media/media-release/one-fossil-fuel-loophole-closed-10-billion-worth-go>

There have been, and continue to be, campaigns on international financial institutions targeting the overall policies and portfolios of an institution or government.

**Campaigning on the policies and portfolios of institutions.** In 2013, the World Bank Group, EBRD, and EIB adopted policies or positions that heavily restricted their assistance to coal power plants. In addition, the US, UK, Nordic countries and the Netherlands also pledged to restrict their assistance to coal plants abroad. These coal-restricting policies were largely a result of CSO campaigns that exposed the level of fossil fuel funding of the MDB and bilateral portfolios.

Additional campaigning will be necessary to get the remaining coal-financing institutions and countries to make commitments. For the MDBs, these include **ADB, IDB, and AfDB**. For bilateral finance, these mainly include **Japan (JBIC and NEXI), Korea (K-sure and Korea Export-Import Bank), Germany (Hermes and KfW), China (Chexim, CDB, ICBC, Bank of China), and Russia (VEB)**.

A powerful tool to use in international finance campaigns is to **build on the momentum** of the institutions and governments that have already announced coal restricting policies. In other campaigns on social and environmental issues, an effective strategy has been to shame any institution with weaker standards to match or do better than the institution with the highest standard.

There are a number of international campaign efforts moving to support additional commitments:

- In Japan, there is an on-going JBIC coal campaign “[No Coal! Go Green! No to JBIC's coal financing!](#)” led by JACSES, Kiko Network, and FOE Japan targeting Central Java Coal Power Plant in Indonesia.
- Using international pressure to target NEXI and JBIC, [Oil Change International](#) and the Sierra Club joined forces with JACSES, Kiko Network, and FOE Japan to send an [open letter to Japanese Prime Minister Shinzo Abe](#) signed by over 30 groups ahead of his meeting with U.S. President Barack Obama in April 2014. The letter urged Japan to follow the United States and other countries' pledges to stop financing coal overseas. As a result of related meetings with US government staff, President [Obama raised concerns](#) with both the Japanese Prime Minister and South Korean President about their financing of coal-fired plants abroad.
- Some members of ECA-Watch are spearheading work to encourage OECD members to adopt coal restrictions similar to the country pledges above for all export credit agencies.

Additionally, even though some the international institutions and governments have coal-limiting policies, the campaigning on these actors is not complete. For one, all of their policies provide for exemptions to the rule and only cover power plants, not mining or associated infrastructure. On the power plant front, it will be essential to watch for what will pass as “**rare circumstances**” in which coal power financing is allowed, and other loopholes unique to each particular institution or country.

Current international campaigning to limit “rare circumstances” and loopholes in commitments to limit coal financing include the following:

- The **World Bank and EBRD** are considering assistance for a **600 MW coal plant in Kosovo**. A coalition of local and international CSOs is campaigning to show the enormous negative impacts of the plant and that Kosovo is a country with cleaner alternatives to new coal.<sup>36</sup>
- US NGOs are watch-dogging the “rare circumstances” and non-power plant coal projects exception, particularly at the **US ExIm bank**, which has historically been a heavy funder of coal projects of all sorts.
- UK groups are trying to close the important loophole that the UK pledge to limit coal financing seems to not officially apply to the **UK's export credit agency** – the country's largest supplier of international coal finance.

In addition to assessing the “rare circumstances,” the MDBs in particular may continue to support coal developments through **policy lending and advisory services**. On this front, the **World Bank** (including the **IFC**) and the **ADB** are key targets due to the recent policy lending and technical assistance programs in coal-important countries like Indonesia, India, and Mozambique. It is also important to note that the policy lending is not always directly labeled as a coal, energy sector, or even infrastructure program support. Other MDB policy processes that often involve subsidies to the coal industry are privatization and public-private partnership (PPP) schemes.

Lastly, an important area that needs much more attention and investigation is the assistance to coal through **financial intermediaries** (see MDB section above). All the MDBs are involved in FI operations, but the **World Bank and IFC** are leading the pack and make for a good FI starting point. In addition to FIs in individual countries, the IFC is managing global FIs such as the **IFC Global Infrastructure Fund** (currently stands at \$2.1 billion, with the ability to leverage much more) and the World Bank is planning to launch a Global Infrastructure Facility. Such FIs represent substantial under-scrutinized and unrestricted pathways for coal finance as the sub-projects receiving finance through these funds are not publicly disclosed.

Campaign efforts are underway to pressure MDBs to strengthen and fully enforce fossil fuel financing limits:

- NGOs are advocating for changes in the way that development policy loans at the World Bank are evaluated in order to catch instances when the policy loans support projects and development with significant environmental and social impacts. As a result of an Oil Change International assessment of the Bank's policy operations in Indonesia, the US government has requested the Bank to assess and report back on concerns surrounding the Central Java Power Plant and other coal projects pending government guarantees.
- NGOs are also working to get greater transparency on FIs so that this financing may be adequately evaluated for whether it includes coal. US NGOs have put the US government on alert to watch for coal assistance through FIs. As a result, the US voted in December 2013 against an IFC proposed \$100 million equity investment in Saudi Arabian corporation ACWA Power International over concerns that it had greenfield coal projects in its portfolio.

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<sup>36</sup>For more information, see:

[http://action.sierraclub.org/site/DocServer/Kosovo\\_Lignite\\_Project\\_Fact\\_Sheet\\_FINAL.pdf?docID=9421](http://action.sierraclub.org/site/DocServer/Kosovo_Lignite_Project_Fact_Sheet_FINAL.pdf?docID=9421)

- Oil Change International and CEE Bankwatch continue to monitor, assess, and expose the portfolios of MDBs on an annual basis.

For more information on how to target international public finance, go to **Bank Information Center:** <http://www.bicusa.org/resources/capacity-building-and-tools/> and **CEE Bankwatch:** <http://bankwatch.org/>

### **Political Momentum for International Subsidy Reform**

**G20 and APEC.** On the fossil fuel subsidy front, there continues to be political momentum for reform at the national level, although it is complicated and slow and is generally focused on a subset of subsidies.

In September 2009, the leaders of the [Group of Twenty \(G20\) countries committed to phase out “inefficient fossil-fuel subsidies”](#) over the medium term to improve energy efficiency and security, boost investment in clean energy sources, and address climate change.<sup>37</sup> This commitment was echoed by the leaders of Asia-Pacific Economic Cooperation (APEC) in November 2009, which added 11 new countries to the group committing to the phase-out. To date, 134 nations have declared their support for fossil fuel subsidy removal in at least one international forum. Other international fossil fuel subsidy reform initiatives include Friends of Fossil Fuel Subsidy Reform – a group of countries encouraging the removal of fossil fuel subsidies – and the proposed Secure Sustainable Energy goal of the United Nation’s Post-2015 Development Agenda.<sup>38</sup>

In spite of these high-level commitments, and proposals to phase-out fossil fuel subsidies, by and large, subsidies are not being eliminated by the G20 countries. Instead, G20 countries are changing their definitions of subsidies in order to avoid taking action.

Encouragingly, by 2018, the European Union requires that countries phase out coal mining subsidies. However, countries like Germany, Poland, and Spain have continued to provide large amounts of coal mining subsidies prior to the phase out.

### **Transparency of Coal Subsidies and Finance**

The lack of clarity on how much public money governments provide in coal subsidies is a serious barrier to campaigning against and ultimately eliminating subsidies. Efforts to independently research coal subsidies and campaigning in country should be seen as an important first step to achieving transparency and reform on a larger scale.

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<sup>37</sup> G-20 Leaders. (25 September 2009). Leaders' Statement: The Pittsburgh Summit. Retrieved 7 December 2009 from The Pittsburgh Summit 2009: <http://www.pittsburghsummit.gov/mediacenter/129639.htm>

<sup>38</sup> Friends of FFS Reform – a group of eight countries (including Denmark, Finland and Sweden) that came together to encourage the transparent rationalisation and phase-out of inefficient (consumption and production) subsidies; and the proposed Secure Sustainable Energy goal of the United Nations’ Post-2015 Development Agenda includes a commitment to ‘phase-out inefficient fossil fuel subsidies that encourage wasteful consumption.’

As discussed in a [June 2012 report by Oil Change International](#), reviewing the G20's fossil fuel subsidy phase out pledge, the lack of transparency on subsidies continues to plague reform efforts.<sup>39</sup> Following the G20 pledge to reform inefficient subsidies, the report found that G20 nations are changing their definitions, not their subsidy policies, and that self-reporting of subsidies is failing.

There are some public sources of data on national-level subsidies, such as the [Organization for Economic Cooperation and Development's fossil fuel subsidies data](#), but this resource has data on only 40 countries, and the data scope is limited. Additionally, the IEA's coal data for 39 countries provides consumption, export, import, prices, and CO<sub>2</sub> emissions estimates, which can be helpful in identifying subsidies in those countries. However, these sources miss many countries and only supply certain types of data and subsidies, often leaving out items that are not disclosed in government budgets, subsidies through state-owned enterprises, and international public finance.

In terms of international finance for coal, there is some public data available on multilateral development bank and bilateral finance institutions' websites, although it is not always easy to locate. Additionally, this information is likely incomplete, as multilateral development banks often 'hide' support for coal in support for financial intermediaries, policy loans, and technical services, while many countries' bilateral financing is not easily accessible and must be pieced together from disparate sources.

Oil Change International is collecting data on national subsidies and international finance for fossil fuels on its [Shift the Subsidies website](#).<sup>40</sup> Data on major multilateral development bank finance and the OECD data on national subsidies are already included in the site. There are plans to add data on bilateral finance and also go into greater depth on national subsidies in G20 countries, with a particular focus on identifying coal subsidies in [Indonesia](#), South Africa, and Turkey.

However, even with these substantial efforts to collect additional data, there is still much that is not public knowledge. With this lack of transparency, additional efforts to find and expose subsidies are very important to supporting reform.

Ultimately, individual governments will need to agree to tackle transparency of fossil fuel subsidies as an issue. Increased pressure from campaigning groups to own up to the amount of money being handed over to support the coal industry could contribute significantly to these efforts.

Existing resources on subsidy transparency include [Access Info Europe](#)<sup>41</sup> and the [Centre for Law and Democracy](#)<sup>42</sup>, experts in the right to access public information.

## Strategic Arguments against Coal Subsidies

Building the argument for the elimination of coal subsidies can be made on several fronts, including climate change mitigation, improving public health, reducing public expenditures or compliance with

<sup>39</sup> <http://priceofoil.org/2012/06/17/report-phasing-out-fossil-fuel-subsidies-in-the-g20-a-progress-update/>

<sup>40</sup> <http://shiftthesubsidies.org/>

<sup>41</sup> <http://www.access-info.org/>

<sup>42</sup> <http://www.law-democracy.org/>

international agreements. The arguments used depend on the individual country circumstances, timing and opportunities for change. The following section provides ideas for arguments and strategic messaging on issues surrounding public finance and subsidies to coal.

### **Coal Subsidies are Simply NOT the Best Use of Public Money**

Coal subsidies support activities that:

- Generally don't increase energy access for the poor
- Perpetuate economic injustice
- Create fewer jobs than renewable sources of energy
- Degrade the environment and use up land and water resources
- Cause climate change

Is this how taxpayers want their money spent? Probably not.

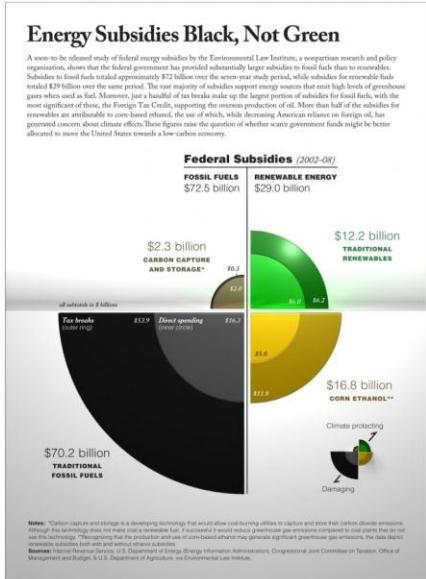
This argument is perhaps the most versatile argument against subsidies, as there are always alternative ways to spend money, and any argument against coal can be used in this situation, depending on the audience.

One way to highlight this is to contrast the amount of public money going towards coal and fossil fuels with the amount of public funds going towards social spending, clean energy development, or other areas important to the public. Easily understood and shared images can really help make the case about what public money is being used for.

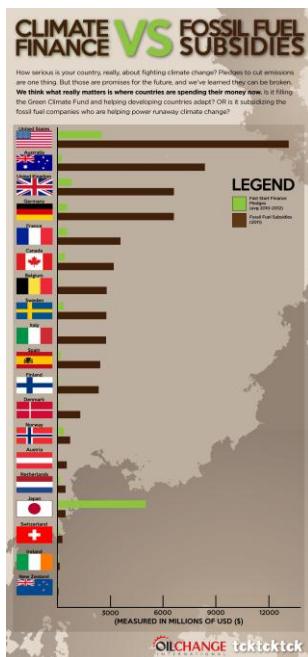
Oil Change International (OCI) and Natural Resources Defense Council (NRDC) used the following images on oil subsidies in the United States to gain support for cutting oil subsidies when decisions were being made about what government programs to cut.



Environmental Law Institute made the following graphic showing the amount of fossil fuel subsidies versus the amount of clean energy subsidies in the United States:



Internationally, Oil Change and Global Campaign for Climate Action have highlighted the amount of money going to fossil fuel subsidies compared to climate finance from the world's major economies:



Briefings and reports highlighting the disparity between dirty and clean subsidies can also be helpful, particularly for media and policy audiences. For instance, Oil Change has written briefings providing the

World Bank Group's energy lending statistics, emphasizing the Bank's continued significant support for fossil fuels.<sup>43</sup>

### **Removing Coal Subsidies Doesn't Have to Harm the Poor**

There is a great misperception that fossil fuel subsidy removal will necessarily harm the poor or that coal is the best way to provide energy access for the poor. It is important to communicate the reality that subsidies benefit the rich and powerful most. Furthermore, according to the International Monetary Fund (IMF), [energy subsidies tend to be an extremely inefficient way to help the poor](#) — most of their benefits go to the top one-fifth of the population. It is typical for the poorest 20% of households to receive less than 7% of the benefits generated by fossil fuel subsidies.<sup>44</sup>

Furthermore, coal subsidies undermine the development chances of some of the poorest people in the world through public health and climate change impacts. Climate change is anticipated to negatively affect developing countries and the poor disproportionately — threatening recent gains in poverty reduction. Poor countries are particularly affected by climate change as they rely heavily on climate-sensitive sectors, such as agriculture and forestry, and their lack of resources, infrastructure, and health systems leaves them at greater risk to adverse impacts.

When consumer subsidies are targeted for removal, it will be important to assess impacts on the poor and provide safety net measures and tariff structures that protect the poor's access/affordability of electricity and fuel.

### **Coal Doesn't Increase Energy Access for the Poor**

One of the main arguments used to continue public support for coal is that it is a cheap way to increase access to energy, but the reality is that coal power rarely goes to increase energy access for the poor.

Worldwide, it is critical for some 1.5 billion poor people to receive access to energy services in order to help pull themselves out of poverty. However, in most cases, large-scale coal power plants are not the most effective way to provide energy access to the poor. According to the IEA, more than 95% people without access to modern energy services are either in sub-Saharan Africa or developing Asia, and 84% are in rural areas. Given that the vast majority of those without electricity live in rural communities, small-scale, renewable energy is one of the best ways to help achieve energy access. Solar panels, wind turbines, and mini-hydropower all work well in rural areas where there's no electricity grid.

When clearly substantiated, this argument can be effective for the media, government officials, and the development community. The following reports highlight how fossil fuels do not support energy access:

- [Energy Access for the Poor: The Clean Energy Option](#). Oil Change International, ActionAid International, and Vasudha Foundation (India), June 2011. This report finds that only 9% of World Bank Group energy sector lending in 2009 and 2010 actually went to support basic energy needs in communities that lacked access to energy. The report also demonstrates

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<sup>43</sup> See World Bank Group Energy Lending 2013 <http://priceofoil.org/content/uploads/2013/10/OCI-World-Bank-Energy-Lending-Oct-2013-Final.pdf>

<sup>44</sup> IMF, 2013. Energy Subsidy Reform: Lessons and Implications. International Monetary Fund, 2013. <http://www.imf.org/external/np/pp/eng/2013/012813.pdf>

that in India decentralized renewable energy systems are less expensive than extending the grid from a coal fired power plant to deliver electricity to the rural poor.

- **[World Bank Group Energy Financing: Energy for the Poor?](#), Oil Change International, October 2010.** This study finds that none of the World Bank Group's fossil fuel finance in 2009 and 2010 directly targeted the poor nor did it ensure that energy benefits are reaching the poor.

### **Renewables Create More Employment Opportunities than Coal**

Another argument to continue public assistance for coal mining and power plants is employment creation.

Decisions-makers and the public need to be made aware that renewable energy provides more and safer employment opportunities than the coal industry. According to the International Renewable Energy Agency (IRENA), renewable energy employment stands at about 5.7 million presently (excluding traditional unsustainable biomass in developing countries and large hydropower), and may grow to well above 15 million by 2030 with appropriate policies. Coal, which has about four times more energy share, presently provides 7 million jobs worldwide.

In addition, IRENA estimates that reaching the objective of universal access to modern energy services by 2030 could create 4.5 million jobs in the off-grid renewables-based electricity sector alone. The IRENA Report is available at: [www.irena.org/REjobs](http://www.irena.org/REjobs).

### **Coal Creates Pollution, Harms Public Health, and Contributes to Water Scarcity**

Most coal campaigns already include arguments regarding the pollution, environmental damage, and negative public health impacts of coal. As discussed above, these are all negative externalities that should be included in the assessment of coal subsidies for policies and projects. Although many coal campaigns already include these impacts, they often do not assign monetary values to the impacts, which is key for exposing the public subsidies associated with coal.

For the cost of public health impacts from coal, estimates in the US range from \$100 billion each year in a 2010 [National Academy of Sciences report](#) to \$345 billion each year in a 2011 [Harvard Medical School study](#).

Greenpeace International has experience modeling health impacts for individual coal projects and assigning monetary values to those impacts. For example, see "[The True Cost of Coal](#)" report for China.<sup>45</sup>

Another key cost that is receiving more and more attention and needs to be further highlighted and monetized is coal's use of water resources, which falls under the subsidy category of government provision of resources at below market rates. The entire chain of coal based electricity production –coal mining, transport, power plant combustion, and ash disposal – has huge impacts on water. In addition to accounting for the potential price gaps in coal's payment for water and the market value, the level of subsidization needs to include the costs of reduced water availability for drinking, household use, and

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<sup>45</sup> Yushi, Mao, Sheng Hong and Yang Fuqiang, 2008. The True Cost of Coal. Greenpeace. Available at: <http://www.greenpeace.org/eastasia/PageFiles/301168/the-true-cost-of-coal.pdf>

agriculture/food production. For more on coal's water impacts, please see Shripad's blog on the Limitations of the World Bank's Thirsty Energy.<sup>46</sup>

### **Coal Undermines Climate Change Commitments**

Coal is the single greatest source of worldwide carbon dioxide (CO<sub>2</sub>) emissions accounting for [43% of total global CO<sub>2</sub> emissions](#). While coal's contribution to climate change may be a difficult argument for convincing some audiences, the impact of coal development on the climate is significant. In some situations, this argument may be quite effective, particularly for countries and institutions that are vocal about the impacts of climate change and their climate commitments.

Coal subsidies lead to excess production, demand, and use of fuels, which result in greenhouse gas emissions. Moreover, they "tilt the playing field" against emerging renewable energy technology, making it more difficult to transition to cleaner energy sources and thus, a low-carbon economy.

The reduction of fossil fuel subsidies has always been understood to play a significant role in obtaining the goals of the United Nations Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol calls for Annex I Parties to "implement ... measures ... such as ... progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention".

Furthermore, the International Energy Agency (IEA) pinpoints phasing out fossil fuel subsidies as one of four policies to keep the world on course for the 2-degree global warming target, at no net economic cost. The IEA has estimated that even a partial subsidy phase-out by 2020 would reduce greenhouse gas (GHG) emissions by 360 million tonnes, which equates to 12% of the reduction in GHGs needed to hold temperature rise to 2 degrees. As such, during the Warsaw 2013 UNFCCC COP, 27 leading climate and energy scientists from 15 countries issued a [joint statement](#) that: "**There is no room in the remaining carbon budget for building new unabated coal power plants, even highly efficient ones, given their long lifetimes.**"<sup>47</sup>

In some circumstances, campaign arguments to eliminate coal subsidies can be tied to government commitments on GHG emission reductions. To begin, given that scientists have determined that at least two-thirds of the world's current coal reserves must not be burned if we are to avoid raising global temperatures above 2 degrees, then all governments should be called upon to immediately eliminate any subsidy for **coal exploration** to prevent the worst impacts of climate change.

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<sup>46</sup> <http://shripadblog.blogspot.in/2014/03/limitations-of-world-banks-thirsty.html>

<sup>47</sup> Metz, Bert (Dr.), et al, 2013. New unabated coal is not compatible with keeping global warming below 2°C. Coal and 2 degrees C statement. European Climate Foundation, The Netherlands. October 2013.

# COAL SUBSIDY RESOURCES

## Coal Subsidy Resources, Organizations and Campaigns by Country

- **Australia**
  - **Paid to Pollute:** A coalition of over 20 civil society organizations in Australia campaigning to eliminate fossil fuel subsidies. <http://paidtopollute.org.au/>
- **Indonesia**
  - **Greenpeace SE Asia:** Working to stop coal projects and change policies affecting the coal sector, including the [Central Java Coal Power Plant](#). See GP's documents: [How Coal Mining Hurts the Indonesian Economy](#); and [The True Cost of Coal - Indonesia](#).
  - **WALHI:** Working to halt coal projects, including through exposing unpaid taxes by the coal mining sector. See article on WALHI's efforts regarding [unpaid coal mining taxes](#).
  - **Oil Change International:** Working with Indonesian partners (above) to expose and eliminate subsidies and public finance to coal in Indonesia. See OCI's resources: [Indonesia Subsidy Data](#); [World Bank Accelerating Coal Development in Indonesia](#); Indonesia: Public Finance/Subsidies for Coal; and NGO Letter to the World Bank.
- **Japan**
  - **JBIC Coal Campaign:** “[No Coal! Go Green! No to JBIC's coal financing!](#)” led by JACSES, Kiko Network, and FOE Japan targeting the Central Java Coal Power Plant and beyond. <http://sekitan.jp/jbic/?lang=en>
  - **NGO Letter to Prime Minister Abe:** The [letter](#) urges Japan to follow the United States and other countries' pledges to stop financing coal overseas. <http://priceofoil.org/content/uploads/2014/04/OpenLettertoJapanesePMFINAL.pdf>
- **Romania**
  - **Greenpeace Romania:** [Cost of Coal to Romania](#) – The Cost of Subsidies Received by Romanian Coal Industry Compared with Renewable Industry.
- **Turkey**
  - **CEE Bankwatch:** [Kings of Coal on-line toolkit](#) – provides guidance on how to get information on public finance of coal by MDBs, ECAs, and bilateral development institutions with a focus on institutions important for Turkey and Southeast Europe. See references to coal public finance and subsidies in: [Black Clouds Looming](#) – How Turkey's coal spree is threatening local economies on the Black Sea; and [IFIs pull out of Turkish coal project - NGO pressure integral](#).
  - **Greenpeace Mediterranean:** After the SOMA coal mine accident, GP Turkey launched the 'Plan B' campaign against the dirty coal policies of the government. Their main target is the Ministry of Energy and are asking to shift the energy policies from coal to renewables, including elimination of coal subsidies. See GP Turkey's SOMA Coal Mine Disaster Information Report; and the blog “[What Caused the Turkey Coal Mine Disaster](#)”.

## **Organizations Working Internationally on Coal Subsidies and Public Finance**

- **Oil Change International:** <http://priceofoil.org/>
- **Global Subsidies Initiative:** <http://www.iisd.org/gsi/>
- **Pacific Environment:** <http://pacificenvironment.org/section.php?id=341>
- **ECA Watch:** <http://www.eca-watch.org/>
- **CEE Bankwatch:** <http://bankwatch.org/>
- **Natural Resources Defense Council:**  
[http://switchboard.nrdc.org/blogs/jschmidt/way\\_too\\_much\\_public\\_funding\\_is.html](http://switchboard.nrdc.org/blogs/jschmidt/way_too_much_public_funding_is.html)
- **End Coal:** [www.endcoal.org](http://www.endcoal.org)
- **Bank Information Center:** <http://www.bicusa.org/resources/capacity-building-and-tools/>
- **Bretton Woods Project:** <http://www.brettonwoodsproject.org/>