G20 subsidies to oil gas and coal production: India

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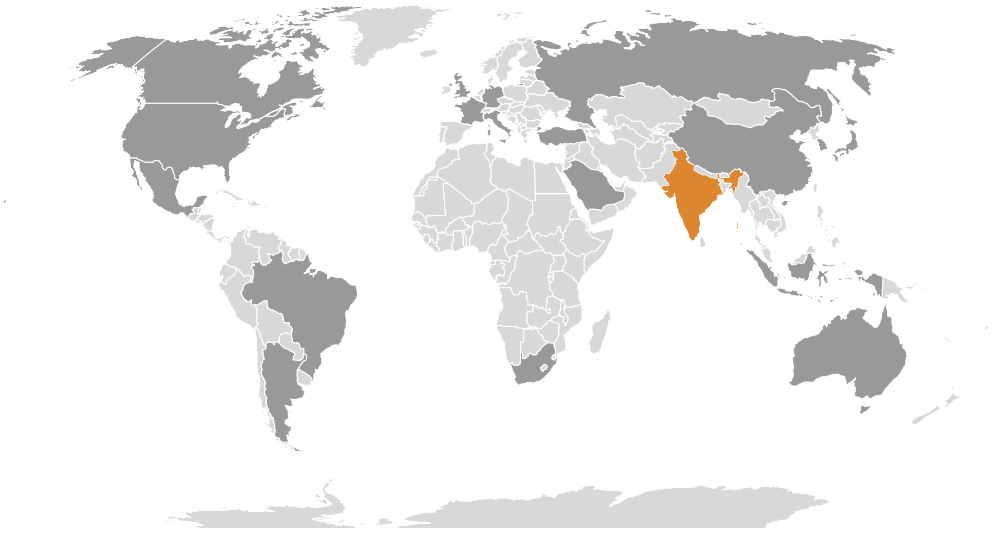

This country study is a background paper for the report **Empty promises: G20 subsidies to oil, gas and coal production** by Oil Change International (OCI) and the Overseas Development Institute (ODI). It builds on research completed for an earlier report **The fossil fuel bailout: G20 subsidies to oil, gas and coal exploration**, published in 2014.

For the purposes of this country study, production subsidies for fossil fuels include: national subsidies, investment by state-owned enterprises, and public finance. A brief outline of the methodology can be found in this country summary. The full report provides a more detailed discussion of the methodology used for the country studies and sets out the technical and transparency issues linked to the identification of G20 subsidies to oil, gas and coal production.

The authors welcome feedback on both this country study and the full report to improve the accuracy and transparency of information on G20 government support to fossil fuel production.

A Data Sheet with data sources and further information for India's production subsidies is available at:
http://www.odi.org/publications/10073-g20-subsidies-oil-gas-coal-production-india

priceofoil.org
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Country Study
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Background

India has substantial fossil fuel reserves, including 61 billion tonnes of coal, 5.7 billion barrels of oil and 1.4 trillion cubic feet of gas (BP, 2015). The Ministry of Coal (MoC) is responsible for overseeing the management of India's coal industry through a number of agencies and companies, including Coal India Limited (CIL), a 90% state-owned enterprise. India's upstream oil and gas industries are overseen by the Ministry of Petroleum and Natural Gas (MoPNG) and, despite the markets opening up to private investment in the 1990s, upstream and downstream petroleum markets continue to also be dominated by state-owned enterprises (SOEs).

Coal is India's primary source of energy and the country is the world's third largest coal producer after China and the United States (Enerdata, 2014). India produces some oil and gas, however crude oil is the country's single largest import item with India also dependent on the import of a range of other gas and petroleum products (Enerdata, 2014). In 2014, imports accounted for 72% of oil consumption, 35% of gas consumption and 13% of coal consumption (EIA, 2014).

CIL oversees, and is largely responsible for, the production of coal, which fuels more than 70% of India's power plants (CEA, 2015). Two SOEs – the Oil and Natural Gas Corporation (ONGC) and Oil India Limited (OIL) – also dominate India's upstream oil and gas production. However, the opening up of the oil sector and the government's gradual withdrawal from its ownership of ONGC has led to several private companies entering the market. More than 70% of India's domestic petroleum demand is satisfied by imports to India's refining sector. India's natural gas consumption has also grown, driven by demand from the electricity sector (37% of consumption) and for fertilisers (23%) which together led to the need for imports of Liquid Natural Gas (LNG) from Qatar starting in 2004 (World Energy Council, 2012; EIA, 2013). Until 2006, the state-owned enterprise GAIL functioned as a near-monopoly in the transmission and distribution of gas though this appears to be changing as the government has begun to reform gas pricing and to deregulate downstream activities.

This reform is part of a wider drive to remove or reduce consumer subsidies and move away from government fixing the retail prices for certain petroleum products (LPG, kerosene, diesel and gasoline). Although fossil fuel producers take on the burden of some of these costs, much of the cost of price fixing is covered by payments from government budgets. In spite of this deregulation of petrol prices (in 2010) and diesel prices (in 2014) and the global fall in oil prices, costs to the government of price fixing still remained substantial at $11 billion in 2014–15 (MoPNG, 2015b). Similar consumer subsidies of approximately $12 billion in 2012–13 existed in the electricity sector. Although these subsidies may drive demand for further production of fossil fuels and electricity (the majority of which is fossil fuel-based), these subsidies are directed toward consumers and, therefore, are not included in this report.

The Central Electricity Authority (CEA) monitors the mixture of public and private companies in the Indian power sector, which is primarily fossil fuel based and is growing rapidly (CEA, 2015a).

National subsidies

Tax expenditure

The Indian tax regime includes a number of tax breaks that benefit the exploration and production of fossil fuels. These include the Ministry of Coal providing coal and lignite companies with $27 million as an excise duty rebate and another $12 million excise duty rebate on account of the companies developing transportation infrastructure in rural areas in both 2013–14 and 2014–15 (MoF, 2015). Coal mining equipment may also have attracted rebates of customs duties of the order of $2 million per year on average.[1] However, no data was available to confirm this and as a result we have not added the numbers to the total subsidies quantified. Further tax breaks that could not be quantified because of a lack of data include: the option to log all exploration costs as immediate expenses during the first year of production (or when incurred for unsuccessful wells) instead of depreciating costs over time; accelerated depreciation of capital research and development (R&D) costs incurred during exploration or production activities (Ernst and Young, 2015; Deloitte, 2014).

Another way in which the government has held the prices of certain petroleum products below market rates is by exemptions in excise and custom duties. Most of these subsidies are consumer-focused but an example of a producer subsidy is where LNG bought by power companies is exempted from customs duty. It was, however, not possible to quantify the value of this exemption.

Direct spending

The total capital outlay by the Ministry of Petroleum and Natural Gas on petroleum under the heading 'exploration and production of crude oil and natural gas' was nil in 2013–14 (Controller General of Accounts, 2014) compared to $45.7 million for 2012–13 (Controller General of Accounts, 2013). The Oil Industry Development Board

1 Calculation by authors. Before 2012–13, goods required for coal mining projects attracted a concessional basic customs (import) duty rate of 5% against the normal rate of 12.5%. Full exemption from basic customs duty is applied to coal mining projects from 2012–13 onwards. This exemption is available only for machinery imported under the import scheme.

(OIDB) under the Ministry of Petroleum and Natural Gas, provides direct support to R&D activities that are 'useful to the oil industry' and 'for appraising the unexplored/partly explored acreage'. The cost of this research was reported as $4 million in 2013–14 (OIDB, 2014). The government also funds a number of research institutes and universities including the Rajiv Gandhi Institute of Petroleum Technology (RGIPT), which focuses on research into enhanced oil recovery (RGPIT, 2010). Budgetary estimates suggest $7 million was granted to the institute in both 2013–14 and 2014–15 though it was not possible to determine the portion of this funding that supports fossil fuel production (MoPNG, 2014).

The Ministry of Coal supports the production of coal via expenditure on R&D, regional exploration and detailed drilling. In 2013–14 expenditure for these three areas stood at $2 million, $7 million and $23 million respectively, and in 2014–15 the values were $1 million, $9 million and $29 million (MoC, 2015).

Despite having been officially deregulated, coal prices are still determined by consultation between Coal India Limited (CIL) and the government. This arrangement has led to domestic prices for individual grades of coal being substantially below global prices on an energy equivalent basis, providing substantial benefits for those using coal as an energy input for generation of electricity. For the power sector in particular the price of coal has been held low in order to convey a subsidy to electricity consumers. An inability to quantify the benefit to the producers (as opposed to the consumers) from these actions means no figure is added for this subsidy to the total subsidies considered in this report.

Finally, in the past a lack of a competitive bidding process for allocation of coal blocks to the private sector resulted in the provision of natural resources to private companies at a cost to the government of $27 billion (Business Standard, 2015). However, the recent decision to revoke many of these licenses and redistribute the blocks by competitive auctions indicates that this subsidy no longer exists.

The total capital outlay by the Ministry of Power (MoP) for diesel- and gas-fueled power generation projects was $24 million in 2013–14 (Controller General of Accounts, 2014). The electricity sector also benefited from fuel inputs at below market prices (as described above). However, no data quantifying the benefit of this subsidy could be found.

The Power System Development Fund (PSDF) has recently been promoted by the government with the target of increasing the use of gas-fired power plants across the country. Although the scheme was not in existence in the years in focus in this study, the government estimates that outlays in 2015–16 and 2016–17 will total $554 million and $633 million, respectively (MoP PSDF, 2015).

Other support mechanisms

India does not have any other national support mechanisms on fossil fuel subsidies.

State-owned enterprise investment

Investment by SOEs in fossil fuel production represented a large portion of overall government support with a number of state-owned industries being involved in the production of coal, oil and gas and also in the transportation and refining of oil and natural gas in India. Table 2 presents investment by SOEs in the 2013–2014 period.[2] The table includes total capital expenditure as reported by oil and gas, coal and electricity companies in their annual reports for these years.

ONGC (69% state-owned) accounted for 65% of the country's crude oil production in 2013 and 2014. The smaller, but older, OIL (68% state-owned), with operations concentrated in the north-east of India, was responsible for 10% of the total oil production. The average annual capital expenditure of ONGC and OIL across 2013 and 2014 was $4.9 billion and $535 million, respectively (Rystad Energy, 2015). These companies also have exploration and production projects overseas, including in Canada, Colombia, Egypt, Gabon, Iran, Libya, Myanmar, Nigeria, Russia, South Sudan, Sudan, Timor Leste, the United States, Venezuela, Vietnam and Yemen (OIL, 2014).

SOEs also dominate India's midstream and downstream oil and gas sectors. GAIL (India) is mainly concerned with transporting oil and gas while Indian Oil (IOCL), Bharat Petroleum (BPCL), and Hindustan Petroleum (HPCL) are the dominant refiners in the country. The combined capital expenditure of the midstream and downstream sector was $5 billion and $4.5 billion in 2013–14 and 2014–15 respectively (GSPCL, 2015; GAIL, 2015; IOCL, 2015; BPCL, 2015; HPCL, 2015).

CIL tightly regulates the Indian coal industry and sets the price for all of the country's 42 producers. When its own production is combined with that of its numerous subsidiaries, CIL was responsible for approximately 80% of the total coal produced in 2013–14 and 2014–15, producing 462 and 494 million tonnes (Mt) respectively (CIL, 2015b).

Capital expenditure for domestic projects by CIL grew from $710 million in 2013–14 to $815 million in 2014–15 and is set to hit $920 million by 2015–16, with $640 million earmarked for infrastructure projects (CIL, 2015a). CIL also has coal mining operations outside India,

2 Capital outlay is not deducted from the capital expenditure of SOEs due to a lack of information about how capital outlay is allocated. The total value is therefore considered.

including in Mozambique where it allocated $808 million in 2013–14 with a further $647 million available if needed for further mine development (CIL, 2013). In addition to the forecast budget for 2015–16 there is also an ad hoc provision of $75 million for acquiring further coal assets abroad and developing coal blocks in Mozambique.

India's electricity generation capacity is dominated by enterprises owned by the central and regional (state-level) governments. None the less, the share of private-sector generation has increased since the introduction of the 2003 Electricity Act, which opened up avenues for investment from the private sector. National Thermal Power Corporation Ltd. (NTPC) is the largest SOE operating in the electricity sector and is largely fossil-fuelled with small hydro and renewable capacity. The average annual capital expenditure of NTPC is around $3.5 billion across 2013 and 2014 (NTPC, 2015).[3] The SOEs Damodar Valley Corporation (DVC) and Neyveli Lignite Corporation Limited (NLC) also have a fossil fuel-dominated generation mix (CEA, 2015a) with DVC's annual expenditure of $128 million[4] in 2013–14 (Tariff Orders, 2014 and 2015) and NLC $25 million on average across 2013 and 2014 (NLC, 2015).

Table 1: India's national subsidies to fossil fuel production, 2013–2014 ($ million except where stated otherwise)

Subsidy	Subsidy type	Targeted energy source	Stage	2013 estimate	2014 estimate	Estimated annual average amount
Capital outlay by Ministry of Petroleum for exploration and production of crude oil and natural gas	Direct funding	Oil and gas	Exploration and extraction	N/A	N/A	N/A
Ministry of Coal – detailed drilling	Direct funding	Coal	Exploration and extraction	23	29	26
Capital outlay on power projects (diesel- / gas-based power generation)	Direct funding	Electricity	Plant planning & construction & operation	24	N/A	24
Ministry of Coal – regional exploration	Direct funding	Coal	Exploration and extraction	7	9	8
Oil industry development board – R&D activities	Direct funding	Oil and gas	Exploration	4	N/A	4
Ministry of Coal – R&D	Direct funding	Coal	Exploration and extraction	2	1	2
Subsidy to coal and lignite companies for payment against collection of excise duty on coal and coke	Tax breaks	Coal	Exploration and extraction	28	27	27
Subsidy to coal and lignite companies for payment against collection of excise duty towards development of transportation infrastructure in rural areas	Tax breaks	Coal	Plant operation & field development	12	12	12
Custom duty rebates on imported coal mining equipment	Tax expenditure	Coal	Exploration and extraction	N/A	N/A	N/A
Totals						
Total national subsidy ($ million)						103
Total national subsidy (INR million)						6,401

Sources and additional data are available in the Data Sheets that accompany each Country Study.
Notes: Capital outlay may include some expenses towards administration and other expenses, but due to a lack of information on what percentage is spent on subsidising the exploration and production process or for developing power plants, the total value is considered. N/A indicates data was not publicly available at the time of publication. When data is not available for both 2013 or 2014, the two-year average is based on the data for one year only.

3 It is likely that this includes some portion of investment attributable to non-fossil sources (e.g. investment in hydro and renewable assets), but given that capacity and generation of NTPC is predominantly fossil-based, it is considered that this will be minimal.

4 The capital expenditure as provided in the annual report of DVC includes expenditure on irrigation, fossil fuel based power projects and distribution of power. In absence of information on the capital outlay allocated to fossil fuel-based power projects, capital expenditure as given in the tariff filing (i.e. approval of generation tariff by the regulator) for thermal plants was used as the basis. However, in last two to three years, tariff filing was done only for Koderma, Durgapur and Mejia (7 & 8 unit). The capital expenditure for DVC could thus be understated.

Table 2: India's state-owned enterprise (SOE) investment, 2013–2014 ($ million except where stated otherwise)

Name of SOE	Project / investment	Description	Fossil fuel sector	Value 2013	Value 2014	Annual avg. value
ONGC (India)	Investment	Exploration, extraction and associated services	Oil and gas	5,062	4,775	4,919
Oil India (OIL)	Investment	Exploration, extraction and associated services	Oil and gas	511	558	534
GAIL (India)	Investment	Transportation	Oil and gas	656	179	417
IOCL	Investment	Refining	Oil and gas	2,614	1,923	2,269
BPCL	Investment	Refining	Oil and gas	1,177	1,569	1,373
HPCL	Investment	Refining	Oil and gas	846	757	801
Coal India	Investment	Power production	Coal	711	815	763
NTPC Ltd.	Investment	Power production	Electricity	3,658	3,298	3,478
DVC	Investment	Power production	Electricity	128	N/A	128
NLC	Investment	Power production	Electricity	10	39	25
Totals						
Total SOE investment ($ million)						14,707
Total SOE investment (INR million)						910,000

Sources and additional data are available in the Data Sheets that accompany each Country Study.
Notes: N/A indicates data was not publicly available at the time of publication. When data is not available for both 2013 or 2014, the two-year average is based on the data for one year only.

Public finance

In addition to bilateral finance via government agencies, the government owns the majority of India's commercial banks, resulting in a large number of institutions in India providing public finance as defined in this report. We identified fossil fuel financing at 13 of India's largest public finance institutions and state-owned banks – for coal projects including mining, transportation and/or combustion as well as oil and gas projects involving exploration and production, transportation, storage and/or processing and refining. Due to limitations of time, this analysis was limited to the lending patterns of 13 of the largest Indian banks. Another 22 Indian banks providing public finance were identified but not examined in detail, so it is certain the projects identified do not represent the full spectrum of lending to fossil fuel production by Indian banks in 2013 and 2014.

Many of the Indian banks provided both domestic and international finance, though domestic financing was much greater than financing abroad. Of the 13 banks reviewed, the two largest lenders during 2013 and 2014 were the State Bank of India and SBI Capital Markets (a wholly owned subsidiary of the State Bank of India), which lent $1.4 billion and $830 million respectively – or more than half of the total funding identified. Significantly smaller amounts were lent by the other 11 banks analysed: Bank of Baroda ($345 million), Punjab National Bank ($258 million), Bank of India ($248 million), Indian Overseas Bank ($211 million), Corporation Bank ($169 million), Central Bank ($157 million), United Bank of India ($84 million), Canara Bank ($83 million), Export-Import Bank of India ($73 million), Oriental Bank of Commerce ($45 million) and Punjab & Sind Bank ($18 million).

Domestic

Indian public finance institutions and state owned banks provided $3.1 billion in fossil fuel financing over 2013 and 2014, for an annual average of $1.6 billion. The large majority of domestic financing domestically went to coal plants.

Over the two-year period, 76 individual domestic loans were identified that were distributed among 23 discrete projects. For many projects, multiple loans were provided by different banks. For instance, more than a dozen banks provided loans for the Jajpur Power Plant and Alloy Plant Expansion (IJ Global, 2014).

A number of multilateral development banks have provided loans to CIL at subsidised rates for the procurement of equipment and technical assistance under the Coal Sector Rehabilitation Project (CIL, 2015a). The Indian government also guarantees these loans. The subsidised loan to CIL is estimated to be approximately $11 million and $2 million in 2013–14 and 2014–15 but is not included in the total.[5] Further, instances of domestic finance were identified where a number of state-owned banks have extended loans to power stations at their minimum lending rates (i.e. lower than achievable on the competitive market).

International

Internationally, 10 individual loans from the 13 reviewed Indian public finance institutions and state-owned banks were identified for two projects in 2013 and 2014, for a total of $776 million in fossil fuel financing over the two years, or $388 annually. Nigeria and Australia were the only two identified recipients of international lending by the Indian SOEs; each received loans from multiple Indian banks for a single project: the Sterling Global Okwuibome Oil Field in Nigeria (six loans from among the banks examined) and the Gujurat NRE Coking Coal Mine Capex Facility in Australia (four loans from among the banks examined).

Table 3: India's public finance for fossil fuel production, 2013–2014 ($ million, except where stated otherwise)

Institution name	Coal mining	Coal-fired power	Upstream oil and gas	Oil and gas pipelines, power plants and refineries	Total fossil fuel finance 2013 & 2014	Annual avg. fossil fuel finance
Domestic						
State Bank of India	-	649	-	601	1,251	625
SBI Capital Markets	-	443	27	242	712	356
Bank of Baroda	-	183	27	-	209	105
Corporation Bank	-	157	-	12	169	85
Central Bank of India	-	157	-	-	157	79
Additional state-owned banks	-	567	-	65	632	316
Subtotal domestic	-	2,156	53	921	3,131	1,565
International						
State Bank of India	18	-	118	-	135	68
Bank of Baroda	18	-	118	-	135	68
Punjab National Bank	18	-	118	-	135	68
SBI Capital Markets	-	-	118	-	118	59
Bank of India	-	-	118	-	118	59
Additional state-owned banks	18	-	118	-	135	68
Multilateral development bank share	1	70	62	166	299	149
Subtotal international	72	70	767	166	1,075	537
Total						
Total public finance ($ m)						2,103
Total public finance (INR m)						130,812

Sources and additional data are available in the Data Sheets that accompany each Country Study.

5 Calculation by authors. Multilateral organisations have provided loans to CIL at subsidised rates for the procurement of equipment and technical assistance under the Coal Sector Rehabilitation Project. Credit subsidies have been estimated for loans from the Japanese Bank for International Co-operation (JBIC), International Bank of Reconstruction and Development (IBRD), the Export Development Corporation Canada and Liebherr France SA. The benchmark interest rate used for comparison was the State Bank of India's prime lending rate.

India also contributed an annual average of $149 million to fossil fuel projects in 2013 and 2014 through its shares in the African Development Bank, the Asian Development Bank, and the World Bank Group, which range from 0.2% to 5.3% depending on the institution.

Finally, India holds 20% of shares in the New Development Bank and 8.5% of shares in the Asian Infrastructure Investment Bank, two new international institutions that could be potential sources of public finance for fossil fuel production in the future, and bear watching closely. The New Development Bank is scheduled to begin operations in 2016, with $50 billion in capital expected to rise to $100 billion over time. The Asian Infrastructure Investment Bank is also scheduled to begin operations in 2016, with $100 billion in total capital.

Private companies

Private upstream oil and gas companies

The introduction of the New Exploration Licensing Policy (NELP) in 1999 increased private investments in India's upstream oil and gas sector. Private companies now produce approximately 25% of India's oil, the vast majority of which is by Cairn India (India). Reliance Industries (India) and BP (United Kingdom) produce the majority of natural gas. In addition to these three companies, Cairn Energy (United Kingdom), BG (United Kingdom), and Niko Resources (Canada) also invested at least an average of $100 million per year in operating expenditure and capital expenditure in 2013 and 2014.

Private midstream/downstream oil and gas companies

The midstream/downstream oil and gas sector is not covered separately to avoid double counting, as the same companies – Reliance, BG and Essar – are also involved in the upstream sector.

Private coal companies

There are no private coal companies for commercial mining but there are private coal companies for captive coal i.e. coal production for internal use, and not to be sold into the wider market for coal.

Private electricity companies (fossil fuel-based)

Increased private participation in India's electricity sector has added much needed additional capacity and helped to increase the reliability of supply. During the eleventh five-year plan (2007–2012), private companies added more than 45% of the total capacity over the period. The private sector has almost exclusively invested in fossil-fuelled plants with only one of the top 10 operators having any notable non-fossil capacity.

Table 4: Top private upstream oil and gas producers in India, 2013–2014

Company	Headquarter country	Oil production (million barrels in country)		Gas production (billion cubic metres in country)		Sum of operating expenditure & capital expenditure, including exploration expenditure ($ million)		Profitability (from country operations, as measured by free cash flow, $ million)	
		2013	2014	2013	2014	2013	2014	2013	2014
Cairn India	India	41	45	0	0	1,134	1,341	1,359	849
Reliance	India	4	4	4	4	876	1,106	134	-145
BP	United Kingdom	1	1	2	1	1,282	382	-738	126
BG	United Kingdom	2	2	1	1	145	255	19	-98
Cairn Energy	United Kingdom	5	5	0	0	251	151	42	108
Niko Resources	Canada	0	0	1	0	132	102	21	15
Videocon	United States	2	2	0	0	32	34	70	62
Indus Gas	India	0	0	0	0	12	24	31	1
Marubeni	Japan	1	1	0	0	16	17	35	31
Great Eastern Energy	India	0	0	0	0	7	10	5	9

Source: Rystad Energy, 2015.

Table 5: Private operators in India's electricity sector

Company	Electricity production (GWh)		Proportion of electricity mix generated from fossil fuels	
	2013	2014	2013	2014
Adani Power	43,800	54,660	100%	100%
Tata Power	41,356	43,255	96%	97%
Reliance Power	15,424	29,875	100%	100%
Lanco	16,205	17,230	99%	99%
Jaypee Power	14,205	18,049	55%	60%
JSW Energy	14,606	14,980	100%	100%
Jindal Steel & Power	8,333	11,038	100%	100%
Sinhapuri Energy	8,354	9,753	100%	100%
CESC Utility	8,930	8,596	100%	100%
Essar Power	6,196	7,060	100%	100%

Source: CEA, 2015c.

Methodology

(for detailed methodology see Chapter 3 of main report)

This report compiles publicly available information on G20 subsidies to oil, gas and coal production across G20 countries in 2013 and 2014. It provides a baseline to track progress on the phase-out of such subsidies as part of a wider global energy transition. It uses the following terms and their definitions.

Production subsidies

Government support for fossil fuel production. For the purpose of this country study, production subsidies include national subsidies, investment by state-owned enterprises (SOEs) (domestic and international) and public finance (domestic and international) specifically for fossil fuel production.

Fossil fuel production

Production in the oil, gas and coal sectors. This includes access, exploration and appraisal, development, extraction, preparation, transport, plant construction and operation, distribution and decommissioning. Although subsidies for the consumption of fossil fuels can support their production, this report excludes such subsidies as well as subsidies for the consumption of fossil fuel-based electricity.

National subsidies

Direct spending, tax and duty exemptions and other mechanisms (such as forms of capacity markets) provided by national and sub-national governments to support fossil fuel production. Normally, the value assigned for a national subsidy is the number provided by the government's own sources, by the OECD, or by an independent research institution.

State-owned enterprise (SOE) investment

A SOE is a legal entity created by a government to undertake commercial activities on its behalf. SOEs can be wholly or partially owned by governments.

It is difficult to identify the specific component of SOE investment that constitutes a subsidy, given the limited publicly available information on government transfers to SOEs (and vice-versa), and on the distribution of investment within their vertically integrated structures. Therefore, this report provides data on total investment by SOEs in fossil fuel production (where this information is available from the company), which are presented separately from national subsidies.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international investment by an SOE is considered when a government holds >50% of the shares.

Public finance

Public finance includes the provision of grants, equity, loans, guarantees and insurance by majority government-owned financial institutions for domestic and international fossil fuel production. Public finance is provided through institutions such as national and multilateral development banks, export credit agencies and domestic banks that are majority state-owned.

The transparency of investment data for public finance institutions varies. Assessing the portion of total financing that constitutes a subsidy requires detailed information on the financing terms, the portion of finance that is based directly on public resources (rather than raised on capital markets) or that depends on the institutions' government-linked credit rating. Few of the institutions assessed allow public access to this information. Therefore, we report the total value of public finance from majority government-owned financial institutions for fossil fuel production separately from 'national subsidy' estimates.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international financing is considered when a government holds >50% of the shares in the bank or financial institution.

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