



# Fossil fuel exploration subsidies: India

Sam Pickard and Shakuntala Makhijani

This country study is a background paper to the report **The fossil fuel bailout: G20 subsidies for oil, gas and coal** by Oil Change International (OCI) and the Overseas Development Institute (ODI).

For the purpose of this report, exploration subsidies include: national subsidies (direct spending and tax expenditures), investment by state-owned enterprise and public finance. The full report provides a detailed discussion of technical and transparency issues in identifying exploration subsidies, and outlines the methodology used in this desk-based study.

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

Argentina  
Australia  
Brazil  
Canada  
China  
France  
Germany  
**India**  
Indonesia  
Italy  
Japan  
Republic of Korea  
Mexico  
Russia  
Saudi Arabia  
South Africa  
Turkey  
United Kingdom  
United States

## Background

India has substantial fossil-fuel reserves, including 60.6 billion tonnes of coal, 5.7 billion barrels of oil and 1.4 trillion cubic feet of gas (BP, 2014). The Ministry of Coal 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 which, despite opening up to private investment in the 1990s, continues to be dominated by state-owned enterprises (SOEs). There are significant exploration activities planned and underway in India, with almost \$35 billion spent by SOEs on exploration and production under the 11<sup>th</sup> five-year plan (2007-2012), and 197 oil and gas exploration wells being drilled in 2012 and 2013 (Ministry of Petroleum & Natural Gas, 2013).

## National subsidies

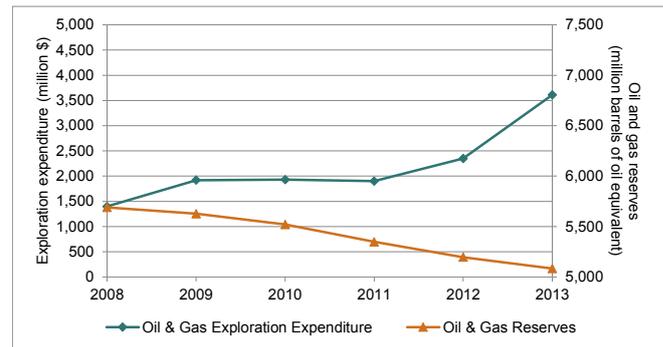
Although it is not possible to clarify the sub-set of support provided to oil and gas exploration, the total capital outlay by the Ministry of Petroleum and Natural Gas on petroleum under the heading 'exploration and production of crude oil and natural gas' was recorded as \$45.7 million for 2012 (Controller General of Accounts, 2013b).

The Oil Industry Development Board (OIDB) provides direct support to research and development (R&D) activities that are 'useful to the oil industry' and 'for appraising the unexplored/partly explored acreage', amounting to \$24.6 million in 2013 (OIDB, 2013). The Government of India 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 (RGIPT, 2010). Budgetary estimates suggest \$6.7 million will be granted to the institute in 2013/14 though it was not possible to determine whether any of this funding supports exploration directly (Ministry of Petroleum & Natural Gas, 2014).

In addition to direct support to the oil and gas industry, the Government also supports coal mining projects. In 2012-2013, the Ministry of Coal spent \$1.8 million, \$2.1 million, and \$30.4 million on research and development, regional exploration and detailed drilling, respectively (Ministry of Coal, 2014; CIL, 2013).

There are also a number of tax breaks provided by the Government that appear to benefit exploration activities directly. Although no values for these could be identified, they include: the option for the immediate expensing of all exploration costs during the first year of production (or when incurred for unsuccessful wells) instead of depreciating costs over time, accelerated depreciation of capital R&D costs incurred during exploration or

Figure 1. Oil and gas exploration expenditure and reserves in India



Source: Rystad Energy, 2014

production activities and exemptions for specific contracts for exploration or production (EY, 2013; Deloitte, 2014).

Recent inquiries into a lack of due diligence for assigning rights to mine-explored coal blocks have revealed that the Indian Government may have lost billions of dollars (BBC News, 2014). However, as many of these licences have been revoked recently and are now likely to be redistributed by competitive auctions, this cost is not included in the total.

## Investments by state-owned enterprises

India's fossil-fuel industries are dominated by SOEs. The coal industry is tightly regulated by Coal India (90% government owned) which sets the price of coal centrally for all of the countries' 42 producers. Along with its numerous subsidiaries, Coal India was responsible for 81% of the total coal produced in India 2012-2013, producing 452.21 megatonnes (Mt).

Within Coal India, the Central Mine Planning & Design Institute (CMPDIL) is the subsidiary that carries out exploration activities including regional mapping and detailed drilling. On the basis of CMPDIL information, the Ministry of Coal then promotes the further exploration and development of the projects it feels are most promising. Six new exploration or extension projects for Coal India were due to be sanctioned in 2012 at a value of \$481 million (CIL, 2012).

Coal India also has operations outside India, including in Mozambique where it has allocated \$808 million in 2013/14 with a further \$647 million available if needed (CIL, 2013). For investment in the development of coal abroad, Coal India has proposed a total capital outlay of \$4.1 billion with a further \$5.7 billion available on an ad-hoc basis during the 12<sup>th</sup> planning period (2012-2017).

India's upstream oil and gas industry is also dominated by majority state-owned companies, including the Oil and Natural Gas Corporation (ONGC), the Indian Oil Corporation (IOC) and Oil India Limited (OIL), which invested \$1.9 billion, \$581.2 million, and \$232 million in

**Table 1. India's national subsidies**

Subsidy	Subsidy type	Targeted fossil fuels	Estimated annual amount (million \$)	Timeframe for subsidy-value estimate	Stage
<b>Direct spending</b>					
Capital outlay by Ministry of Petroleum for exploration and production of Crude oil and natural gas	Direct funding	Oil and gas	45.7	2013	Exploration and extraction (including an exploration component)
Ministry of Coal – detailed drilling	Direct funding	Coal	30.4	2013	Exploration and extraction (including an exploration component)
Oil industry development board – R&D activities	Direct funding	Oil and Gas	24.6	2013	Exploration
Ministry of Coal – regional exploration	Direct funding	Coal	2.1	2013	Exploration and extraction (including an exploration component)
Ministry of Coal – R&D	Direct funding	Coal	1.8	2013	Exploration and extraction (including an exploration component)
<b>Tax expenditure</b>					
Accelerated depreciation of capital investments in R&D	Tax expenditure	Oil and gas	n/a	n/a	Exploration and extraction (including an exploration component)
Accelerated amortising (writing off) of exploration costs	Tax expenditure	Oil and gas	n/a	n/a	Exploration and extraction (including an exploration component)
<b>Total exploration</b>			<b>24.6</b>		
<b>Total exploration and extraction (including an exploration component)</b>			<b>111.3</b>		

exploration activities respectively in the 2013/14 financial year (ONGC, 2014; IOC, 2014; OIL, 2014).<sup>1</sup> 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).

## Public finance

### Domestic

At the end of 2012, outstanding project guarantees agreed by the Ministry of Coal totalled \$305 million (Controller General of Accounts, 2013a). In addition, the OADB disbursed loans of \$602 million to public-sector companies operating in the oil sector in 2012 alone (Ministry of Petroleum & Natural Gas, 2012). It is unclear what

<sup>1</sup> Data discrepancy with data in the 'Major companies' section could be due to calendar year/ FY change or the recording of exploration expenditure as production costs in the company's Annual Report.

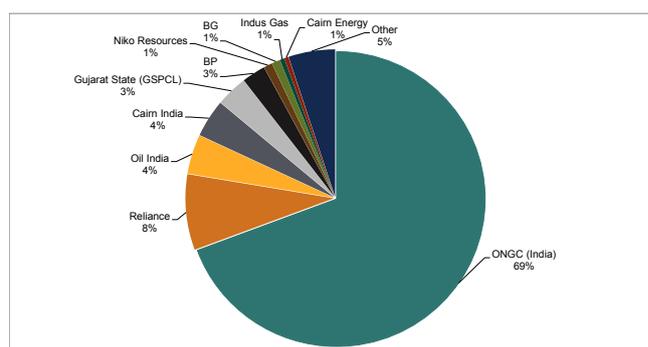
portion of these guarantees and loans are for upstream or downstream projects.

A large number of fossil-fuel projects throughout the energy chain, including the exploration stage, are thought to be financed by state-owned development banks in India. However, only limited data have been found on the value or terms of these loans. One example is \$272 million in support for the Gujarat State Petroleum Corporation KG Block gas field with equal support of \$45.25 million from each of Bank of India, Central Bank of India, Indian Overseas Bank, Union Bank of India, Export-Import Bank of India and Indian Bank. A second example found shows \$109 million in support of the Krishna Godavari Basin Oil & Gas project which was funded by Bank of India (\$22.93 million), Export-Import Bank of India (\$28.66 million), Indian Bank (\$38.22 million), and Union Bank of India (\$19.11 million) (IJ Global, 2014).

### International

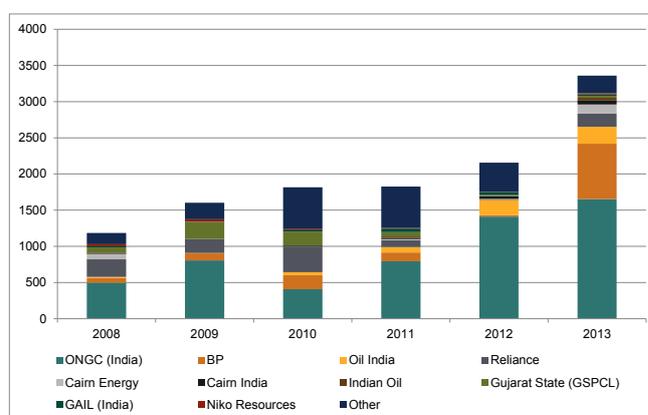
Only anecdotal data were available for international financing by India's public finance institutions. References were found that linked India EXIM Bank and State Bank of India to providing \$43.8 million for the development of Gujarat NRE Coking Coal Mine and NRE No 1 Colliery in Australia in 2010 (IJ Global, 2014). Additionally, Indian Overseas Bank and United Bank of India equally split support totalling \$60 million to the Kaltim Prima Coal and PT Arutmin Mine Expansion project in Indonesia in 2012 (IJ Global, 2014). India EXIM Bank does not break down its disbursements in its annual report; however, it does include reference to oil exploration in Ecuador and

**Figure 2. India's top 10 oil and gas reserve holders' share of total Indian reserves as of January 2014**



Source: Rystad Energy, 2014

**Figure 3. Oil and gas exploration expenditure in India**

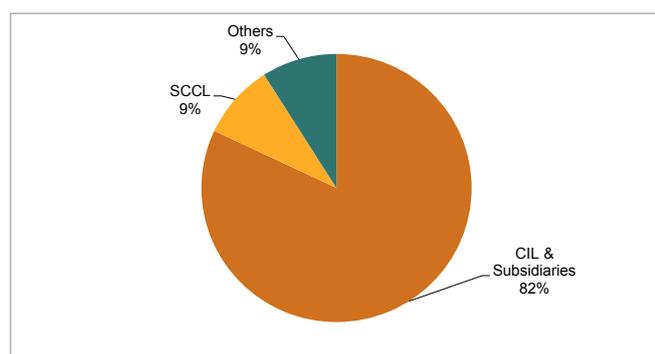


Source: Rystad Energy, 2014

**Table 2: State-owned enterprise coal, oil and gas exploration investment**

State-owned enterprise	Investment purpose	Targeted fossil fuels	Estimated annual investment (million \$)	Timeframe for investment-value estimate	Stage
ONGC	Exploration activities	Oil and gas	1900	2013	Exploration
Coal India	Overseas exploration and development	Coal	820 – 1140	2012-2017	Exploration and extraction (including an exploration component)
IOC	Exploration activities	Oil and gas	581.2	2013	Exploration
CMPDIL	Exploration activities	Coal	481	2012	Exploration
OIL	Exploration activities	Oil and gas	232	2013	Exploration
<b>Total exploration</b>			<b>3194.2</b>		
<b>Total exploration and extraction (including an exploration component)</b>			<b>4014.2 – 4334.2</b>		

**Figure 4: Major shares of Indian coal production in FY 2013/14**



Source: CIL, 2012

assistance to an Indian joint venture involved in oil and gas exploration abroad (Exim Bank, 2012; Exim Bank, 2013; Exim Bank, 2014).

India contributed an average of 2.6% of funding to multilateral development banks (MDBs) that invested in fossil-fuel exploration projects between 2010 and 2013. These contributions render India responsible for average annual spending on exploration for fossil-fuels of \$19.5 million across this period (Oil Change International, 2014).<sup>2</sup>

Finally, the recently announced New Development Bank, to be led by the BRICS countries,<sup>3</sup> with authorised lending up to \$34 billion annually (mainly for infrastructure)

may include support for fossil-fuel exploration activities (Khanna, 2014). India is slated to pledge \$18 billion of the initial \$100 billion total capitalisation of the bank (José Romero, 2014).

## Major companies

### Oil and gas

In 2013, oil and gas companies in India made \$36.5 billion in revenue and \$6.5 billion in profits from upstream operations. State-owned companies, led by ONGC, dominate upstream activities in terms of production and revenue. Oil India Limited is the country's other major SOE in the upstream oil and gas industry, while Indian private companies Cairn and Reliance are among the other top actors. BP and BG, both British companies, also hold interests in India's upstream industry (Table 4).

Of the \$36.5 billion in revenue, the Government of India received \$3.5 billion in income taxes and \$13.6 billion in royalties. In 2013, the share of revenue (aside from royalties) going to income taxes averaged 15% for India's upstream oil and gas industry.<sup>4</sup>

India-based companies own the vast majority of the country's oil and gas reserves, with a total value of 5 billion barrels of oil equivalent (BOE) at the start of 2014, with state-owned ONGC alone holding 69%. Reliance, Oil India and Cairn India followed with 8%, 4% and 4% of total reserves, respectively (Figure 2).

**Table 3. India fossil fuel exploration project financing, 2010 to 2013**

Project	Country	Financier	Year	Amount (million US\$)	Stage
Krishna Godavari Basin Oil & Gas	India	Bank of India, Export-Import Bank of India, Indian Bank, Union Bank of India	2012	109	Extraction (including exploration)
Gujarat State Petroleum Corporation KG Block gas field	India	Bank of India, Central Bank of India, Indian Overseas Bank, Union Bank of India, Export-Import Bank of India, Indian Bank	2010	272	Extraction (including exploration)
Kaltim Prima Coal and PT Arutmin Mine Expansion	Indonesia	Indian Overseas Bank, United Bank of India	2012	60	Extraction (including exploration)
NRE No 1 Colliery and NRE Wongawilli Colliery Expansion	Australia	Export-Import Bank of India, State Bank of India	2010	43.8	Extraction (including exploration)
<b>Total Extraction (including exploration) Financing, 2010-2013:</b>				<b>484.8</b>	
<b>Total Annual Extraction (including exploration) Financing, 2010-2013:</b>				<b>121.2</b>	

2 Data are based partly based on shares of multilateral development banks (MDBs) held by each G20 country from the respective MDB annual reports and replenishment agreements.

3 Brazil, Russia, India, China and South Africa.

4 The income-tax share is calculated by dividing income tax by revenue, excluding royalties, bonuses and government profit.

While India's oil and gas reserves are stagnating or even falling, exploration expenditure in the country is rising as companies search for additional resources, reaching a high of \$3.4 billion in 2013. (Figure 3) (Rystad Energy, 2014). Again, Indian companies, led by ONGC, dominated exploration spending over the 2008 to 2013 period. In 2013, BP, a British integrated multinational oil corporation, ramped up its activities to become the second largest oil and gas exploration spender in India that year, with \$766 million in exploration expenditure.

## Coal

As noted in the section on 'Investments by state-owned enterprises', coal production in India is dominated by Coal

India Limited (CIL) with CIL and its seven subsidiaries producing 462Mt of coal (82% of total production) in FY 2013/14 (CIL, 2014). In the same year, Singareni Collieries Company Limited (SCCL), a smaller SOE independent from CIL, produced 50Mt (9%) with the remainder of production divided between a number of smaller public and private companies including TISCO, IISCO and DVC (all of which operate captive mines).

The CIL subsidiary CMPDIL and the Geological Society of India are responsible for coal exploration activities. Six new exploration or extension projects for Coal India were due to be sanctioned in 2012 at a value of \$481 million (CIL, 2012).

**Table 4. India's top 10 oil and gas producers' revenues, profits and income taxes, 2013**

Company	Headquarter country	Revenue (million \$)	Profit (million \$)	Income-tax payments (million \$)	Income-tax share of revenue
ONGC (India)	India	\$25,173	\$4,395	\$3,498	22%
Cairn India	India	\$4,415	\$1,471	\$26	1%
Oil India	India	\$3,348	\$791	\$429	21%
Reliance	India	\$1,295	\$128	-\$8	-1%
Cairn Energy	UK	\$491	\$94	\$48	-19%
BP	UK	\$442	-\$329	\$337	-83%
BG	UK	\$411	\$46	\$88	34%
Videocon	India	\$232	\$71	\$34	27%
Niko Resources	Canada	\$160	\$29	-\$12	-8%
Gujarat State (GSPCL)	India	\$134	-\$179	\$6	7%

Source: Rystad Energy, 2014

## References

- BBC News (2014) 'India Supreme Court declares coal licences illegal.' *BBC News*, 25 August. (<http://www.bbc.co.uk/news/world-asia-india-28924592>)
- BP (2014) *BP Statistical Review of World Energy*. London: British Petroleum. (<http://goo.gl/O415De>)
- CIL (2014) 'Production'. Kolkata: Coal India Limited. (<http://www.coal.nic.in/cpddoc.htm>)
- CIL (2013) *Annual Report 2012-13*. Kolkata: Coal India Limited. (<https://www.coalindia.in/en-us/ara1213ofcil.aspx>)
- CIL (2012) 'Implementation of Projects in the Coal Sector'. Kolkata: Coal India Limited. (<http://coal.nic.in/projects.htm>)
- Controller General of Accounts (2013a) 'Guarantees given by Government: Disclosure Requirements (IGAS-1)'. New Delhi: Ministry of Finance, Government of India. ([http://www.cga.nic.in/writereaddata/Statement\\_4Sector-Wise20122013.pdf](http://www.cga.nic.in/writereaddata/Statement_4Sector-Wise20122013.pdf))
- Controller General of Accounts (2013b) 'No. 10 – Statement of Expenditure on Capital Account during and to the end of the Year'. New Delhi: Ministry of Finance, Government of India. ([http://www.cga.nic.in/writereaddata/Statement\\_10\\_20122013.pdf](http://www.cga.nic.in/writereaddata/Statement_10_20122013.pdf))
- Deloitte (2014) *Oil and gas taxation in India*. New Delhi: Deloitte. (<http://goo.gl/UysMwY>)
- EY (2013) *Global oil and gas tax guide*. Ernst and Young. (<http://goo.gl/S9zweS>)

- Exim Bank (2014) 'Press Releases'. New Delhi: Export-Import Bank of India. (<http://www.eximbankindia.in/press-release>)
- Exim Bank (2013) *Annual Report 2012-2013*. New Delhi: Export-Import Bank of India. (<http://www.eximbankindia.in/annual-report>)
- Exim Bank (2012) 'Indian Ocean Rim Association for Regional Co-operation (IOR-ARC) - A Study of India's Trade and Investment Potential'. Research Brief No. 71. New Delhi: Export-Import Bank of India. (<http://www.eximbankindia.in/sites/default/files/Research%20Brief/RB157.pdf>)
- IJ Global (2014) 'Database'. London: Infrastructure Journal and Project Finance Magazine. (<http://www.ijonline.com/data>)
- IOC (2014) *Annual Report 2013/14*. Mumbai: Indian Oil Corporation. (<http://www.iocl.com/AboutUs/AnnualReports/IOC%20Annual%20Report%202013-14.pdf>)
- José Romero, M. (2014) 'A major political move: the BRICS launch the New Development Bank and a reserve arrangement'. *Brettonwoods Project*, 18 July. (<http://goo.gl/1YrSqW>)
- Khanna, P. (2014) 'New BRICS Bank a Building Block of Alternative World Order'. *The Huffington Post*, 18 July. ([http://www.huffingtonpost.com/parag-khanna/new-brics-bank\\_b\\_5600027.html](http://www.huffingtonpost.com/parag-khanna/new-brics-bank_b_5600027.html))
- Ministry of Coal (2014) 'Notes on Demands for Grants, 2013-2014: Demand No. 10' New Delhi: Ministry of Coal, Government of India. (<http://indiabudget.nic.in/ub2013-14/eb/sbe10.pdf>)
- Ministry of Petroleum & Natural Gas (2014) *Detailed Demands for Grants of Ministry of Petroleum and Natural Gas for 2013-2014*. New Delhi: Ministry of Petroleum & Natural Gas, Government of India. (<http://www.petroleum.nic.in/docs/aco/demand13.pdf>)
- Ministry of Petroleum & Natural Gas (2013) *Indian petroleum & natural gas statistics 2012-13*. New Delhi: Ministry of Petroleum & Natural Gas, Government of India. (<http://www.indiaenvironmentportal.org.in/files/file/pngstat%202012-13.pdf>)
- Ministry of Petroleum & Natural Gas (2012) 'Question and Answer: Loans Grants Released by OIDB'. New Delhi: Ministry of Petroleum & Natural Gas, Government of India. (<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=122415> and [http://164.100.47.132/Annexure\\_New/lsq15/10/au5730.htm](http://164.100.47.132/Annexure_New/lsq15/10/au5730.htm))
- OIDB (2013) *Annual Report 2012-2013*. Noida: Oil Industry Development Board. (<http://goo.gl/hh5sSE>)
- OIL (2014) *Annual Report 13/14*. Noida: Oil India Limited. (<http://www.oil-india.com/ARReports.aspx>)
- Oil Change International (2014) 'Shift the Subsidies'. Washington D.C.: Oil Change International. (<http://shiftthesubsidies.org>)
- ONGC (2014) *Annual Report 2014*. Dehradun: Oil and Natural Gas Corporation. (<http://goo.gl/foDGBd>)
- RGIPT (2010) 'Research and Development'. Rae Bareilly: Rajiv Gandhi Institute of Petroleum Technology. ([http://www.rgipt.ac.in/research\\_and\\_development.htm](http://www.rgipt.ac.in/research_and_development.htm))
- Rystad Energy (2014) 'Rystad Energy UCube Upstream Database'. Oslo: Rystad Energy. (<http://www.rystadenergy.com/Databases/UCube>)



**Overseas Development Institute**  
 203 Blackfriars Road  
 London SE1 8NJ  
 Tel +44 (0)20 7922 0300  
 Fax +44 (0)20 7922 0399  
[www.odi.org](http://www.odi.org)  
[info@odi.org](mailto:info@odi.org)



**Oil Change International**  
 714 G Street SE Suite 202  
 Washington, DC 20003 USA  
 Tel: +1 202 518 9029  
 Fax: +1 202 330 5952  
[www.priceofoil.org](http://www.priceofoil.org)  
[info@priceofoil.org](mailto:info@priceofoil.org)

Readers are encouraged to reproduce material for their own publications, as long as they are not being sold commercially. As copyright holders, ODI and OCI request due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ODI website. The views presented in this paper are those of the author(s) and do not necessarily represent the views of ODI or OCI. © Overseas Development Institute and Oil Change International 2014. This work is licensed under a Creative Commons Attribution-NonCommercial Licence (CC BY-NC 3.0).