

COAL CURRENCY

Mapping Coal Project Finances in India



CFA

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Glossary of Terms

ADB – Asian Development Bank
APGENCO - Andhra Pradesh Power Generation Corporation Limited
BNP Paribas - Banque Nationale de Paris (UK and France)
BOB – Bank of Baroda
BOI – Bank of India
BOTM - The Bank of Tokyo-Mitsubishi UFJ (Japan)
CECI – China Export and Credit Insurance Corporation
China Dev Bank – Development Bank of China
China EXIM Bank – Export Import Bank of China (China)
HSBC - Hong Kong and Shanghai Banking Corporation
HUDCO – Housing and Urban Development Corporation
ICBC – Industry and Commercial Bank of China
IDBI – Industrial Development Bank of India
IDFC – Infrastructure Development Finance Company
IFC – International Finance Corporation
IIFCL – India Infrastructure Finance Company
IOB – Indian Overseas Bank
J&K Bank – Jammu and Kashmir Bank
JBIC – Japan Bank of International Co-operation
KfW - Kreditanstalt für Wiederaufbau (Germany)
Korean EXIM Bank – Export Import Bank of Korea
L&T Financial Limited – Larson & Turbo Financial Limited
LIC – Life Insurance Corporation of India
MAHGENCO – Maharashtra State Power Generation Company Limited
MCB – formerly Muslim Commercial Bank (Pakistan)
MoEF – Ministry of Environment and Forests
MPPGCL – Madhya Pradesh Power Generation Company Limited
NCRPB – National Capital Region Planning Board
NIB – National Investment Bank (Pakistan)
NTPC – National Thermal Power Corporation
P&SB – Punjab & Sind Bank
PFC - Power Finance Corporation
PNB – Punjab National Bank
PTC – Power Trading Corporation
RBS – Royal Bank of Scotland
REC – Rural Electrification Corporation
SBBJ – State Bank Bikaner and Jaipur
SBH – State Bank of Hyderabad
SBI – State Bank of India
SBI, NY – State Bank of India, New York
SBM – State Bank of Mysore
SBS – State Bank of Saurashtra
SCB – Standard Chartered Bank (UK)
SIDBI – Small Industries Development Bank of India
UCO – United Commercial Bank
US EXIM Bank – Export Import Bank of United States of America

Introduction

India has the 5th largest power generating capacity in the world. At the end of July 2016, out of India's total installed capacity of 3,04,760 MW, thermal power plants accounted for 69.5% with a capacity of 2,11,855 MW¹. Out of that, coal based capacity was 1,86,293 MW. Projects owned by Central agencies contributed 51,390 MW, State 64,211 MW and private 70,692 MW

The share of installed capacity as of July 2016 is as follows:

Source	MW	%
Thermal		69.52%
Coal	1,86,293	61.13%
Gas	24,644	8.09%
Diesel	919	0.30%
Nuclear	5780	1.90%
Hydro	42,888	14.07%
Renewable Energy		14.52%
Small Hydro	4304	1.41%
Wind	27,151	8.91%
Bio Power	4976	1.63%
Solar	7805	2.56%
Total	3,04,760	100.00%

Source: Central Electricity Authority

However, the Ministry of Power has projection to colossal expansion of this capacity to around 7,02,000 MW which is more than double of the currently installed capacity, and more than five times the installed capacity in 2011. A Report says that the Ministry of Environment and Forest (MoEF) has "accorded environmental clearances to a large number of coal and gas-based power plants whose capacity totals 1,92,913 MW. Another 5,08,907 MW are at various stages in the environmental clearance cycle, that is, they are either Awaiting Environmental Clearance, or have Terms of Reference (TOR) Granted, or are Awaiting TOR. It is extremely rare for a thermal power plant (TPP) to be denied environmental clearance. This means that there are around 7,01,820 MW of coal and gas plants waiting to be built in the coming years. Coal based plants account for an overwhelming 84% of these in-pipeline projects."²

While these projects are built/coming up in a spread of 23 states, more than half the capacity (3,50,000 MW) is located in five states - Andhra Pradesh, Maharashtra, Madhya Pradesh, Gujarat & Tamil Nadu.

As in the case of any large infrastructure projects, coal based thermal power plants require a massive amount of investments. With increasing number of private corporations entering the sector, a large

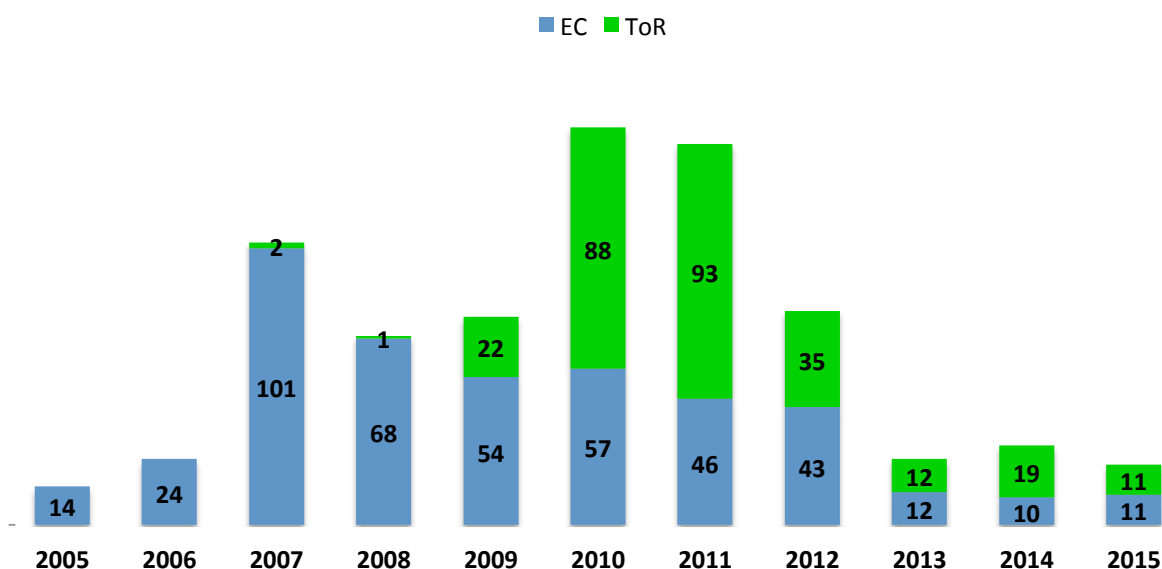
¹ http://www.cea.nic.in/reports/monthly/installedcapacity/2016/installed_capacity-07.pdf

² Thermal Power Plants On The Anvil: Implications and Need for Rationalisation (2011) by Shripad Dharmadhikary & Shantanu Dixit

number of lenders are reached out to – national and international; commercial banks and export credit agencies; multilateral banks and private equity. A report investigating coal finance has said that commercial banking sector, operating at transnational level, is very much keen on investing in such projects, especially in developing economies like China, India or Brazil.³ Multilateral agencies like World Bank despite making public announcements on not financing coal projects except in “rare circumstance”⁴ have been found continuing financing coal projects through financial intermediaries, or financing associated facilities, like transmission lines and ports for importing coal.

The report is an attempt to map the lenders of coal based power projects between 2005 and 2015 in India. The period witnessed a surge in MoEF granting Environmental Clearances (EC) or Terms of Reference (ToR) to coal based power projects.

Yearwise status of ToR and EC by MoEF 2005-2015

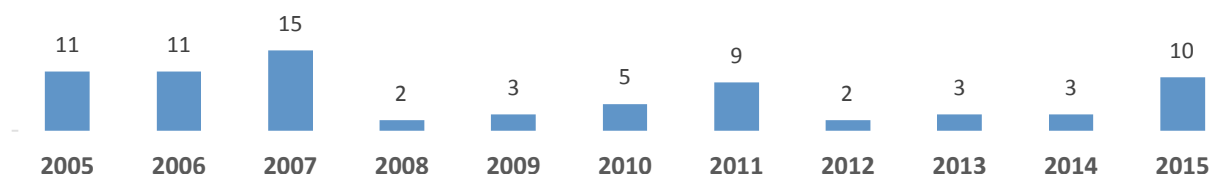


Just to have a comparison, during the same period, the number of hydro-electric projected approved by the MoEF were 74.

³ The Coal Test: Where Banks Stand on Climate at Cop 21 (2015), collaborated and published by Rainforest Action Network, BankTrack, Les Amis de la Terre / Friends of the Earth France, and urgewald

⁴ <http://www.reuters.com/article/us-worldbank-climate-coal-idUSBRE96F19U20130716>

Hydro-Electric Projects Approved 2005-2015



The total number of coal power projects secured EC or ToR between 2005 and 2015 were 794. Out of which details of 723, with total capacity of 686,119 MW is available. This report is looking at projects with capacity of 1000 MW or above⁵. The total number of such projects is 186.

Despite using commercial database, annual reports, balance sheets and filing over 100 Right to Information applications, information about 61 projects were unavailable. Hence the data provided in this report is that of 125 projects, with total capacity of 2,42,968 MW.

These 125 projects are spread in 15 states. Among the 125, 57 are public sector projects and private corporations run 68.

The figures provided in this report are not absolute. It is the minimum these projects have secured from different financial institutions. Lack of transparency and hiding behind the veil of fiduciary relationship between the bank and the client (that is the reason cited while rejecting a lot of RTI applications by banks) prevents any public access or scrutiny of lending.

The report has used 2014 currency exchange rates while converting them into Indian Rupees.

Development of power-sector in India: from government to private

The radical restructuring of power sector in India, witnessed since 1990s, set the ground for the rapid expansion of power. Until then, the states and central government undertakings dominated power sector and they accounted for 58% and 32% of the generation capacity respectively. Private sector accounted for only 10%. The Indian Electricity Act 1910 and the Electricity Supply Act 1948, along with State Electricity Boards regulated the sector.

Since the early 1990s, the power sector in India has been going through a process of reforms and restructuring. "For the power sector, reform began in October 1991, when the Power Ministry of the Government of India began to publish a series of notifications seeking to encourage the entry of privately owned generating companies into the electricity sector. These government orders, some of which were later enacted in Parliament to become the Electricity Laws (Amendment) Act of 1991, radically revised prevailing legislation by permitting private entities to establish, operate and maintain generating power plants of virtually any size and to enter into long-term power purchase agreements

⁵ 1000 MW is the criteria for the status of mega power projects, set by the Ministry of Power, except in the North Eastern states and Jammu and Kashmir.

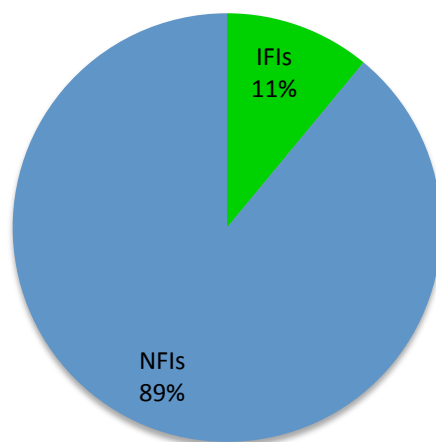
with SEBs.”⁶ In the first phase of reforms, beginning with 1991, the focus of reforms was on the induction of private investment and the government opened up the Indian power sector by an amendment to the Electricity (Supply) Act, 1948; thereby promoting the entry of Independent Power Producers (IPPs). A number of private players then expressed interest in power generation. In 2003, the government brought out the new National Electricity Act to encourage the participation of private sector, to bring in competition and also to distance state government from tariff determination. In addition, the Act delicensed the power generation completely (except for hydro power project over certain size), distribution in rural area and brought licensing regime for distribution in urban area. After the amendment of the said Act, private players have been very active in power sector and fully taking advantage of the Act for rapid expansion.

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⁶ The Politics of Power Sector Reform in India (2001) Navroz K. Dubash & Sudhir Chella Rajan

The Lenders

The total lending for 125 projects, which are 1000 MW and above, approved between 2005-2015 is Rs. 6,31,574 cr. Details of Rs. 4,82,648 cr are available. Out of the total available data international financial institutions contributed Rs. 51,026 cr 11% while the share of national institutions – both commercial banks and non-banking financial institutions is 89%, totaling Rs. 4,31,622 cr. Out of the national institutions, non-banking institutions contributed Rs. 2,78,158 cr, while commercial public sector banks and private banks contributed Rs. 1,37,877 cr and Rs. 15,587 cr respectively.

Share of IFIs and NFIs in Coal Financing



International Financial Institutions

Out of the 22 IFIs who are financing 63 projects, data is available for 58 projects.

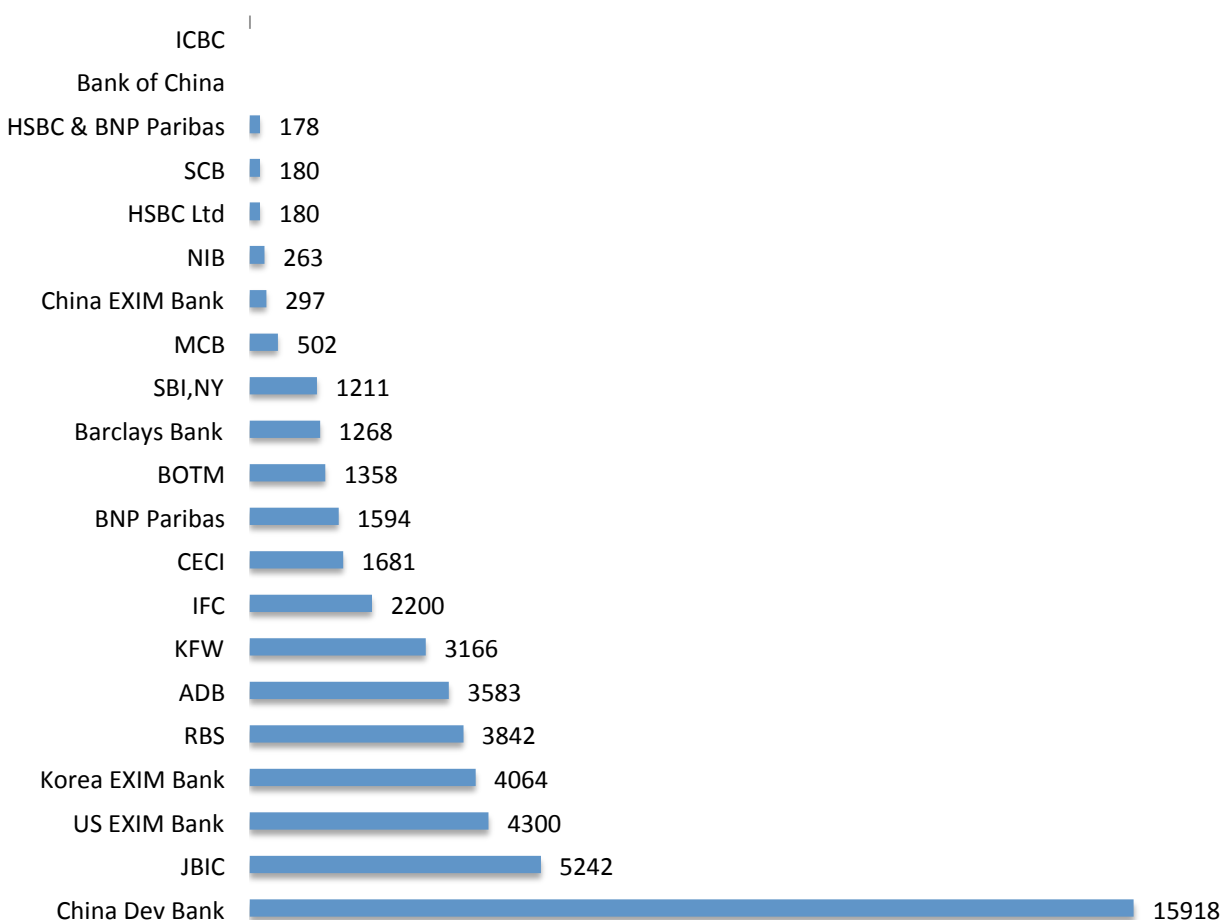
Most of the investment in the sector has come from international financial institutions located and operating in Asia. China Development Bank's loan surpasses other institutions to the effect that its loan-amount is three times over Japan Bank for International Cooperation. In fact, its amount is little less than amount loaned by the rest four financial institutions from the top five. This is in confirmation with the international trend of more and more Chinese financial institutions, especially commercial banks are investing in coal-fired thermal projects across the globe.⁷ It is also important to add that despite presence, investment details of Bank of China and Industrial Commerce Bank of China are not currently in the public domain. Chinese financial institutions' involvement in coal-fired thermal sector in India is an important trend to keep a watch on.

⁷ The Coal Test: Where Banks Stand On Climate At COP 21 (2015)

While China Development Bank might be the biggest investors in the sector but it is RBS which has made investment in maximum number of projects, numbering 9. With its loan worth, Rs. 3841.5 cr, it is 6th highest contributor of funds. After RBS, it is SBI, NY which has loaned 8 projects, with loan amounting to Rs. 1210.8 cr.

Apart from lending, foreign direct investment in the sector is another trend one is noticing. For example, in one of the largest foreign direct investments (FDI) in the power sector, Singapore-based Sembcorp Utilities has acquired 49 per cent stake in the Rs. 1042-crore in Thermal Powertech Corporation India (TPCIL), the special purpose vehicle (SPV) for setting up 1320 MW (Phase-1) thermal plan at Krishnapatanam in Nellore district, Andhra Pradesh.⁸ However, FDI is not in the purview of this report.

International Financial Institutions' Lending to Coal Projects (in crores)



Export Credit Agencies, commonly known as ECAs and Export Import (ExIm) Banks, are public agencies and entities that provide government-backed loans, guarantees and insurance to corporations from

⁸ <http://www.thehindu.com/buisness/companies/sembcorp-utilities-pick-up-49-pc-stake-in-power-venture/article438375.ece>

their home country that seek to do business overseas in developing countries and emerging markets.⁹ Hence lending from the ECAs comes with riders. For example, the Japan Bank of International Cooperation's loan to NTPC included such a clause:

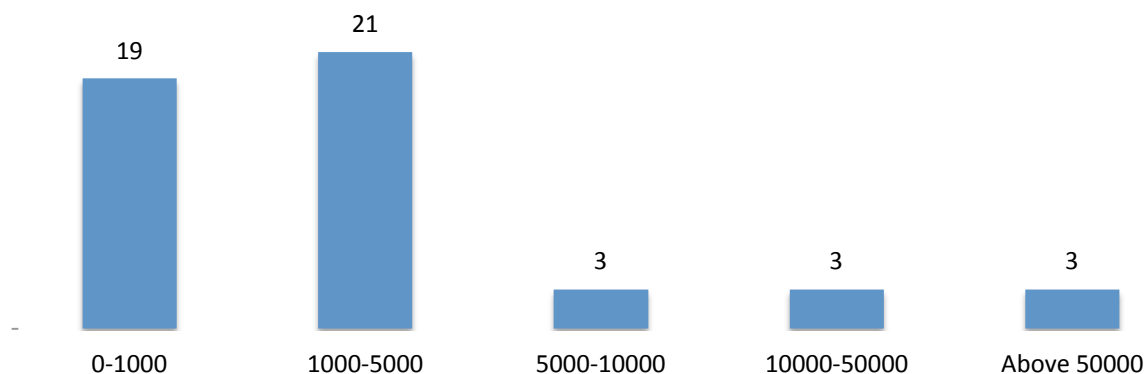
These loans are intended to finance the NTPC to purchase, from Toshiba JSW Power Systems Private Limited, which is a local subsidiary of the Toshiba Corporation (TJPS) in India, Toshiba Corporation (Toshiba) and Ebara Corporation (Ebara), system turbine generators (produced by TJPS and partially by Toshiba), and boiler feed water pumps (produced by Ebara) in order to construct supercritical coal-fired power plants (3x800 MW) in the Kudgi district of the Karnataka state in Southern India.¹⁰

When, Exim Bank of US approved a loan of USD 917 million to Reliance for their 3,960 MW Sasan Ultra Mega Power Project, similar clauses were also in place. According to the agreement, Reliance was required to buy equipment from US companies like Bucryus and General Electric.¹¹

National Financial Institutions

In total, there are 51 national financial institutions – which include, non-banking institutions, public and private commercial banks – out of which data is available for 49. 40 among them invest upto Rs. 5000 cr, in the 125 projects, while only 9 invest more than that.

Investment Pattern of National Financial Institutions



National Non-Banking Institutions

The total money invested by national non-banking financial institutions is Rs. 2,78,158 cr. Out of which Rs. 1,59,037 cr is invested by Power Finance Corporation (PFC) alone, living upto the purpose for which it was set up in 1986, The other key financier among the non-banking institutions is Rural Electrification

⁹ <http://www.eca-watch.org/ecas/export-credit-agencies>

¹⁰ <http://www.jbic.go.jp/en/information/press/press-2013/0127-17508>

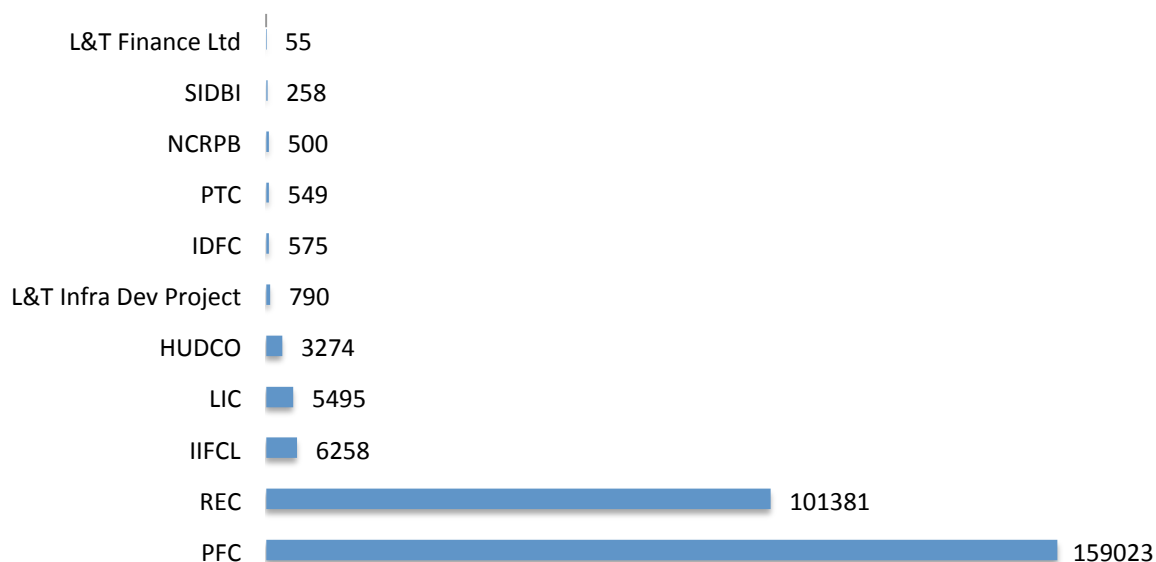
¹¹ Reliance's press release on 7th November, 2010

Corporation (REC), providing Rs.1,01,381 cr. Both PFC and REC together share 94% of financing in this category.

It is notable that PFC’s share for coal project financing alone is higher than the total of all commercial banks’ lending – both public and private.

Giving a cue about what is happening inside these two major institutions, in May 2016 the Government of India has constituted a committee to look into the sharp rise in non-performing assets (NPAs) of PFC and REC. Gross NPAs of PFC were 3.15% of its loan assets as on March 31 this year against 1.16% a year ago. The three-member committee is comprised of independent directors of the companies and a senior official of the power ministry.¹²

National Non-Banking Institutions' Lending to Coal Projects (in crores)



National Public Sector Commercial Banks

32 public sector commercial banks are investing Rs. 1,37,877 cr in 125 coal projects. The top 3 banks – State Bank of India, IDBI and Punjab National Bank – invest 62% among the public sector commercial banks.

All three of these banks figure in the top 10 public sector banks, with high non-performing assets (NPAs).

¹² <http://economictimes.indiatimes.com/industry/banking/finance/panel-set-up-to-look-into-rising-npas-of-power-psus/articleshow/52458708.cms>

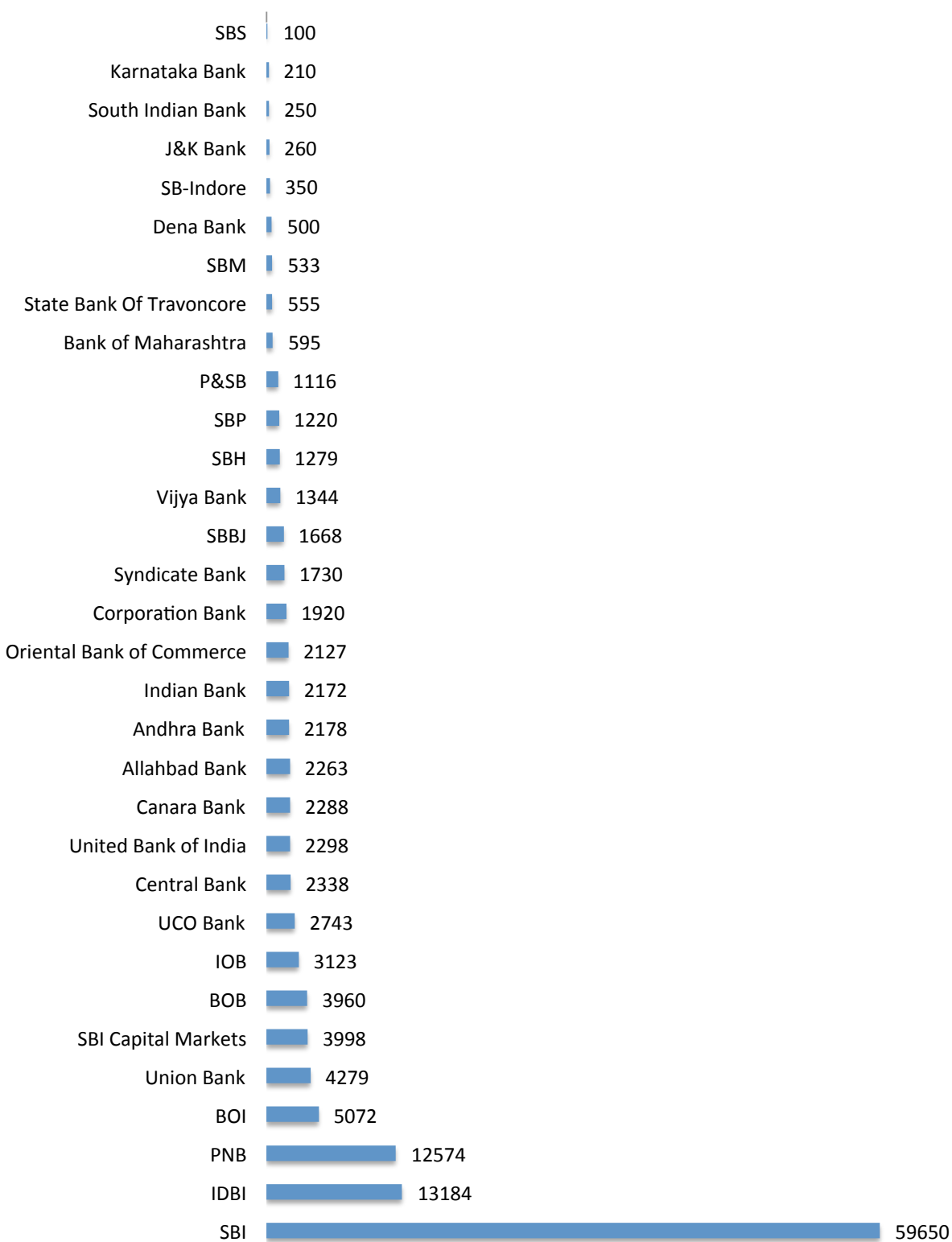
Not only do they individually finance projects, often they form consortium of banks to lend projects. Large banks like SBI lead the consortium. For example in case of Jindal Power Limited's project in Raigarh, SBI leads a consortium of 23 banks to lend Rs. 10,057 cr to it.¹³ Similarly, SBI also leads 16 banks to invest Rs. 7575 cr to Meja Urja Nigam Pvt Ltd, a joint venture of NTPC and Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited.¹⁴



¹³ http://www.buisness-standard.com/article/companies/jindal-power-ties-uprs-10-057-cr-loan-for-2-400-mw-unit-110040600188_1.html

¹⁴ http://articles.economictimes.indiatimes.com/2012-06-07/news/32101324_1_loan-facility-crore-loan-agreement-ntpc

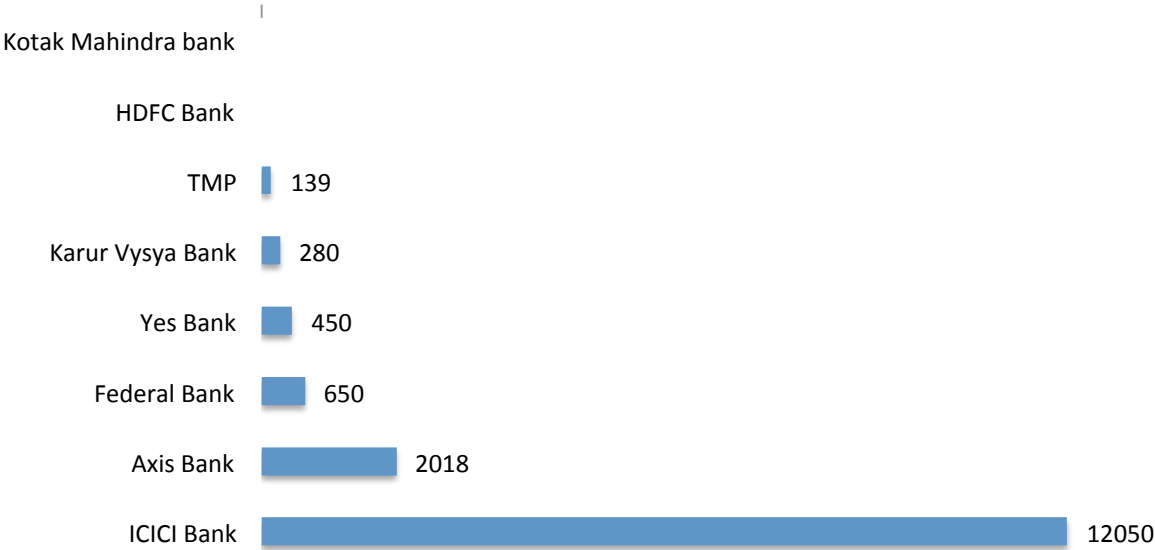
National Public Commercial Banks' Lending to Coal Projects (in crores)



National Private Commercial Banks.

Comparatively, private commercial banks in India are small players in coal project financing. ICICI Bank has invested Rs. 12,050 cr over the period of 2005-2015 in 5 projects. This implies ICICI Bank's loan-percentage out of total private commercial banks' investment in the sector is 77%. While comparing to other national institutions the share of private commercial banks is small, ICICI's is more than every international financial institution's share, except China Development Bank.

National Private Commercial Banks' Lending to Coal Projects (in crores)



Despite investing in 6 projects, Axis Bank, which comes next in the list, is making only one fifth of ICICI's investment in the sector. In fact, other four banks, taken together have loaned 2363.67 crores. It is an amount, which barely surpasses Axis Bank's individual loan-amount.

The States

As mentioned before, the 125 projects whose financial details are available are spread in 15 states. Chhattisgarh tops the table with 18 projects above 1000 MWs, with a total capacity of 35,720 MW. Other top states are Andhra Pradesh (14), Madhya Pradesh (13), Maharashtra (12) and Uttar Pradesh (11).

Giving a glimpse about the size of the projects, Gujarat has 6 projects above 1000 MW totaling 15,380 MW, while Tamilnade has 10 projects to total 15,510 MW, making an average size of 2563 MW per project in Gujarat, while it is 1551 MW per project in Tamilnadu.

States with maximum number of mega projects are also the coal rich states. Jharkhand, Odisha, Chhattisgarh, West Bengal, Madhya Pradesh, Telangana and Maharashtra account for 99.08% of the total coal reserves in the country.¹⁵ Telangana has 3 projects, with a capacity of 5600 MW approved since the state was formed in 2014. Financial data of these projects were unavailable and hence not included in this mapping.

State Name	Loan (in crores)	No. of Projects	Total Capacity
Andhra Pradesh	83,377	14	30,670
Bihar	27,845	4	11,620
Chhattisgarh	89,676	18	35,720
Gujarat	43,750	6	15,380
Haryana	13,108	3	5340
Jharkhand	29,188	5	6010
Karnataka	27,082	6	11,740
Madhya Pradesh	83,958	13	28,850
Maharashtra	48,499	12	24,140
Odisha	34,534	9	13,970
Punjab	12,737	3	5240
Rajasthan	34,797	5	8740
Tamil Nadu	38,905	10	15,510
UttarPradesh	44,768	11	20,528
West Bengal	24,635	6	9510
Total	6,36,860	125	2,42,968

¹⁵ Energy Statistics 2016, Government of India



The Projects

Out of the 125 projects mapped in this report, further narrowing has been done to look closely at some big projects. Projects with capacity of 3000 MW and above are separately looked into. There are 17 of them. Private corporations own 9 of them and 8 of them are public sector projects.

Parent Company	Project Name	Total capacity (MW)	Project cost (crore)	Loans (crore)
Reliance Power Ltd.	Krishnapatanam UMPP	4000	17,450	13,125
APPGCL	Vedarevu UMPP	4000	19,804	6250
NTPC*	Barh STPP Expn	3300	16,041	8693
Jas Infra Power Ltd.	Jas Infra TPP	4000	10,602	7236
Jindal Power	O.P. Jndal TPP	3400	13,500	10,057
KSK Power Ltd.	Akaltara Mahanadi PP	3600	16,190	12,279
NTPC*	Lara Super TPP	4000	11,846	406
TATA Power	TATA Mundra TPP	4000	20,729	15,594
Adani Power Ltd.	Mundra Kutch TPP	4620	NA	11,018
NTPC*	Kudgi STPP	4000	15,166	2716
Reliance Power Ltd.	Sasan UMPP	3960	23,000	21,912
NTPC*	Vindhyachal TPP Expn	4260	5915	1426
NTPC	Gaarwara STPP	3200	11,638	295
Chitrangi Power Pvt. Ltd.	Chitrangi TPP	3960	20,000	15,000
Adani Power	Tirora Thermal Power Plant	3300	15,554	12,433
MAHGenco*	Chandrapur TPP	3340	5500	1435
NTPC*	Rihand TPP	3000	6231	1358
Total		63,940	2,29,167	1,41,232

* Expansion projects. While the additional capacity makes it above 3000 MW, project cost considered here is only for the additional capacity, not for the entire project.

NTPC is a significant company amongst these big projects. However, one needs to keep in mind that NTPC's expansion in most these projects were over a long period of time. Other government undertakings include APGENCO and MAHGenco.

Total capacity of these 9 private owned projects are 34840 MW and that of 8 public sector projects are 29100 MW, averaging 3871 MW and 3638 MW respectively.

Both Reliance and Adani have 3 and 2 projects each, totaling 11,920 MW and 7920 MW respectively.

First published in August 2012, the Credit Suisse report lists 10 business groups that have stressed assets and whose debt has grown at a brisk pace. In an update last year, based on FY15 financial numbers, Credit Suisse put Reliance Group's debt at Rs.1.25 trillion (Rs. 1,25,000 cr), making it the group with the highest outstanding debt among the 10.¹⁶

When it comes to Adani group, its debt stands at Rs. 72,000 crores.



¹⁶ Sanjai, P.R. & Philipose, Mobis (2016), "Reliance Group says it is not the most indebted conglomerate", *Live Mint*, <http://www.livemint.com/Companies/S2G6Xr50iv4bzKAjjenEbN/Reliance-Group-says-it-is-not-the-most-indebted-conglomerate.html>,



Annexure 1

List of 125 projects above 1000 MW, Approved between 2005-2015

	Name of the Project	Parent Company	Capacity (MW)	State	Status
1	Damodarm, Sanjeevaiah TPS	Andhra Pradesh Power Devt. Company Ltd	1600	Andhra Pradesh	Active
2	Bhavanpadu, TPP	East Coast Energy (Athena Group)	2640	Andhra Pradesh	Stalled
3	Pynampuram TPP	Thermal Power Tech Corp Ltd (Sembcorp)	2640	Andhra Pradesh	Active
4	Krishnapatanam UMPP, Coastal Andhra Power Ltd	Reliance Power Ltd	4000	Andhra Pradesh	Stalled, Reliance seeking exit
5	Jaipur TPP	Singareni Collieries Com. Ltd	1200	Andhra Pradesh	Active
6	Vizag TPP	Hinduja National Power Ltd	1040	Andhra Pradesh	Active
7	Vadarevu UMPP	APPGCL	4000	Andhra Pradesh	Active
8	NCC TPP	NCC Power Ltd	1320	Andhra Pradesh	Active
9	Kothagudem stage V TPP	APGENCO	2520	Andhra Pradesh	Active
10	NTTPS Vijaywada TPP	APGENCO	2560	Andhra Pradesh	Active
11	Kakatiya TPP	APGENCO	1100	Andhra Pradesh	Active
12	Rayalseema	APGENCO	1650	Andhra Pradesh	Active
13	Srikakulam TPP	APGENCO	2400	Andhra Pradesh	Active
14	Simhadri STPP	NTPC	2000	Andhra Pradesh	Active
15	Barh STPP Expn	NTPC	3300	Bihar	Active
16	NabiNagar	NTPC	1980	Bihar	Active
17	Kahalgaoon STPS	NTPC	2340	Bihar	Active
18	Jas Infra TPP	Jas Infra Power Ltd.	4000	Bihar	Active
19	Sipat Thermal Power Plant	NTPC	2980	Chhattisgarh	Active
20	O P Jindal TPP	Jindal power	3400	Chhattisgarh	Active

21	Pathadi TPS	Lanco Amarkantak Power Ltd	1980	Chhattisgarh	Active
22	DB Power TPP	DB power Ltd	2400	Chhattisgarh	Active
23	Akaltara Mahanadi Power plant	KSK Power Ltd	3600	Chhattisgarh	Active
24	Singhitarai TPP	Athena Power Ltd	1200	Chhattisgarh	Active
25	Uchpinda TPP	RKM Powergen Ltd	1440	Chhattisgarh	Active
26	Dhanras TPP	Dheeru Powergen Pvt. Ltd	1050	Chhattisgarh	Stalled, approval revoked by NGT
27	GMR Raikheda TPP	GMR Energy	1370	Chhattisgarh	Active
28	Salora Thermal power Plant	Vandana Vidyut	1200	Chhattisgarh	Active
29	Salka TPP	IFFCO Chhattisgarh Power Ltd	1320	Chhattisgarh	Active
30	Visa STPP	Visa power Ltd	1200	Chhattisgarh	Active, delayed
31	Korba West TPP	Avantha power Ltd	2460	Chhattisgarh	Active
32	Binjkote TPP	SKS Power Ltd	1200	Chhattisgarh	Active, delayed
33	Marwa-tendubhata Thermal Power Project	CSEB	1000	Chhattisgarh	Active, delayed
34	Korba East TPP St Expn	CSEB/NTPC	2600	Chhattisgarh	Active
35	Lara SupperTPP	NTPC	4000	Chhattisgarh	Active
36	JSW TPP	JSW Energy Ltd.	1320	Chhattisgarh	Active
37	Tata Mundra TPP	Tata Power	4000	Gujarat	Active
38	Ukai TPP Extn	GSECL	1320	Gujarat	Active
39	Salaya	ESSAR PowerGujarat Ltd.	1200	Gujarat	Active
40	Mundra Kutch TPP	Adani Power Ltd.	4620	Gujarat	Active
41	Pipavav TPP	Videocon Industries Ltd.	1600	Gujarat	Active, Phase II delayed
42	SP -TPP	Shapoorji Pallonji Energy Gujarat Pvt Ltd	2640	Gujarat	Active
43	Mahatma Gandhi TPP	CLP Power Ltd.	1320	Haryana	Active
44	Rajiv Gandhi TPP	HPGCL	1200	Haryana	Active
45	Indra Gandhi TPP	Aravali Power Company Pvt Ltd. (APCPL)/ NTPC	2820	Haryana	Active
46	Tori TPP	Esaar Power Ltd.	1800	Jharkhand	Delayed
47	Matrishri Usha Jayaswal Thermal Power Plant	Abhijeet Power Ltd.	1080	Jharkhand	Stalled
48	Kodarma TPP	DVC	1000	Jharkhand	Active
49	Maithan RB TPP	DVC/Tata Power	1050	Jharkhand	Active
50	Adhunik Power TPP	Adhunik Power Ltd	1080	Jharkhand	Active
51	Bellary TPP	KPCL	1700	Karnataka	Active
52	Yermarus / Vadllor TPP	KPCL	1600	Karnataka	Active
53	Kudgi STPP	NTPC	4000	Karnataka	Active

54	Udupi TPP	UPCL-Lanco	1200	Karnataka	Active
55	Raichur TPP	KPCL	1720	Karnataka	Active
56	Torangallu TPP	JSW Energy Ltd.	1520	Karnataka	Active
57	Sasan UMPP	Reliance Power Ltd	3960	Madhya Pradesh	Active
58	Moser Baer Power Aunppur Plant	Hindustan Power Project	2520	Madhya Pradesh	Active
59	Nigrie TPP	Jaypee Group	1320	Madhya Pradesh	Active
60	Mahan TPP	Essar Power Ltd	1200	Madhya Pradesh	Active
61	Bina TPP	Jaypee Group	500	Madhya Pradesh	Active
62	Seoni TPP	Avantha Power Ltd	1260	Madhya Pradesh	Active
63	Satpura TPP	MPPGCL	1330	Madhya Pradesh	Active
64	Vindhyachal TPP Expn	NTPC	4260	Madhya Pradesh	Active
65	Sanjay Gandhi TPP	MPPGCL	1340	Madhya Pradesh	Active
66	Dada Dhuni Wale TPS	MPPGCL	1600	Madhya Pradesh	Active
67	Gadarwara STPP	NTPC	3200	Madhya Pradesh	Active
68	Chitrangi TPP	Chitrangi Power Pvt Ltd (Reliance)	3960	Madhya Pradesh	Active
69	Sree Singaji TPP	MPPGCL	2400	Madhya Pradesh	Active
70	Lanco Vidarbha TPP	Lanco Power Ltd	1360	Maharashtra	Active
71	Nasik TPP	Indiabulls Realtech Ltd	2700	Maharashtra	Active
72	Amravati TPP PH-2	Indiabulls Realtech Ltd	2700	Maharashtra	Active
73	Tirora Thermal power plant	Adani Power	3300	Maharashtra	Active
74	JSW Ratnagiri TPP	JSW Energy Ltd.	1200	Maharashtra	Active
75	Mouda STPP	NTPC	2320	Maharashtra	Active
76	Khaperkheda TPS Expn	MSPGCL	1340	Maharashtra	Active
77	Koradi TPS Expn	MAHGenco	1980	Maharashtra	Active
78	Bijora TPP	Jinbhuvish Power Gen Pvt Ltd	1260	Maharashtra	Active
79	Chandrapur TPP	MAHGenco	3340	Maharashtra	Active
80	Additional Amaravati Industrial Area TPP Ph-1	Sophia Power Ltd(Indiabulls)	1320	Maharashtra	Active
81	Solapur STPP	NTPC	1320	Maharashtra	Active
82	IB Banaharpalli TPP	Odisha Power Gen. Ltd	1740	Odisha	Active
83	Kamalanga TPP	GMR Kamalanga Energy Ltd	1400	Odisha	Active

84	Sterlite TPP (Jharsuguda)	Sterlite Energy Ltd (Vedanta)	2400	Odisha	Active
85	Derang TPP	Jindal India Thermal Power Ltd	1320	Odisha	Active
86	Malibrahmani TPP	Monet Ispat Ltd (MPCL)	1050	Odisha	Active
87	Ind Bharath TPP	Ind Bharath	700	Odisha	Active
88	NSL TPP	NCC Power Ltd	1320	Odisha	Active
89	Lanco Babandh TPP	Lanco Power Ltd	2640	Odisha	Active
90	KVK Nilanchal TPP	KVK Energy Ltd	1400	Odisha	Active
91	Rajpura TPP	Nabha Power Ltd (L&T)	1400	Punjab	Active
92	Talwandi Sahib TPP	Sterliet (Vedanta Group)	1980	Punjab	Active
93	Goindwal Sahib TPP	GVK Energy Ltd	1860	Punjab	Active
94	Kalisindh TPP	RRVUNL	1200	Rajasthan	Active
95	Kawai TPP	Adani Power Ltd.	1320	Rajasthan	Active
96	Chhabra TPS extn	RRVUNL	2320	Rajasthan	Active
97	Raj West TPP	JSW Energy Ltd.	1080	Rajasthan	Active
98	Suratgarh TPP	RRVUNL	2820	Rajasthan	Active
99	Sirkhazi TPP	NSL Power Ltd	1320	Tamil Nadu	Stalled
100	Vallur TPP	NTPC/TNEB	1500	Tamil Nadu	Active
101	Tuticorin TPP	NLC/TNEB	2050	Tamil Nadu	Active
102	Mettur TPP Ext	TNEB	1440	Tamil Nadu	Active
103	North Chennai Extn	TNEB	1830	Tamil Nadu	Active
104	Ind Barath TPP	Ind Bharath Power Ltd	1320	Tamil Nadu	Active
105	Ennore TPP SEZ	TANGEDCO	1600	Tamil Nadu	Stalled
106	Patel Akurumukutu TPP	Patel Power Ltd	1050	Tamil Nadu	Active
107	Melamaruthur TPP	Coastal Energen	2400	Tamil Nadu	Active
108	Neyveli New Thermal power Plant	Neyveli Lignite Corp Ltd(NLC)	1000	Tamil Nadu	Active
109	Meja TPP	NTPC/UPRVUNL	1320	Uttar Pradesh	Active
110	Obra TPS	UPRVUNL	1288	Uttar Pradesh	Active
111	Anpara -C	Lanco Power Ltd	1200	Uttar Pradesh	Active
112	Rosa TPP	Rosa Power Ltd	2620	Uttar Pradesh	Active
113	Lalitpur TPP	Bajaj Group	1980	Uttar Pradesh	Active
114	Bara Thermal Power Plant (Prayagraj TPP)	Prayagraj Power Ltd (JP Power venture)	1980	Uttar Pradesh	Active
115	Rihand TPP	NTPC	3000	Uttar Pradesh	Active
116	Anpara -D	UPRVUNL	2630	Uttar Pradesh	Active
117	Parichha	UPRVUNL	1140	Uttar Pradesh	Active
118	Feroz Gandhi unchahar TPP	NTPC	1550	Uttar Pradesh	Active

119	NCP Project St-II	DVC	1820	Uttar Pradesh	Active
120	Mejia TPS	DVC	2340	West Bengal	Active
121	Raghunathpur STPP	DVC	2520	West Bengal	Active
122	Sagardighi TPP	WBDCL	1600	West Bengal	Active
123	Durgapur TPP	DVC	1000	West Bengal	Active
124	Bakreshwar TPS-II	WBDCL	1050	West Bengal	Active
125	Santaldih TPP	WBDCL	1000	West Bengal	Active

Annexure 2

List of International Financial Institutions

Sr. No.	Financial Institution	Total Loans (in crores)	Total No. of Projects	No. of Projects data available	Data Not Available
1	International Finance Corporation	2200	1	1	0
2	Asian Development Bank	3583	3	3	0
3	Nordic Investment Bank	263	2	2	0
4	Bank of Tokyo Mistubishi UFJ Ltd	1358	6	6	0
5	Mizuho Corporate Bank	502	2	2	0
6	Japan Bank for International Cooperation	5242	4	4	0
7	SBI,NY	1211	8	8	0
8	US EXIM Bank	4300	1	1	0
9	BNP Paribas	1594	1	1	0
10	HSBC Ltd	180	1	1	0
11	Kreditanstalt für Wiederaufbau (KfW)	3166	4	4	0
12	China Development Bank	15918	4	4	0
13	Bank of China	NA	2	0	2
14	Industrial Commerce Bank of China	NA	1	0	1
15	China EXIM Bank	297	2	1	1
16	Standard Chartered Bank	180	2	1	1
17	China Export and Credit Insurance Corporation (Sinosure)	1681	1	1	0
18	HSBC Ltd & BNP Paribas	178	1	1	0
19	Korea EXIM Bank	4064	2	2	0
20	Barclays Bank	1268	6	6	0
21	RBS	3842	9	9	0
	Total	51026	63	58	5

Annexure 3

List of National Public Sector Commercial Banks

	Name of Institution	Loan (in crores)	No. of Projects
1	SBI	59650	23
2	IDBI	13184	8
3	PNB	12574	21
4	BOI	5072	12
5	Union Bank	4279	14
6	SBI Capital Markets	3998	4
7	BOB	3960	15
8	IOB	3123	9
9	UCO Bank	2743	11
10	Central Bank	2338	11
11	United Bank of India	2298	12
12	Canara Bank	2288	7
13	Allahbad Bank	2263	8
14	Andhra Bank	2178	14
15	Indian Bank	2172	11
16	Oriental Bank of Commerce	2127	11
17	Corporation Bank	1920	11
18	Syndicate Bank	1730	8
19	SBBJ	1668	13
20	Vijya Bank	1344	7
21	SBH	1279	9
22	SBP	1220	10
23	P&SB	1116	6
24	Bank of Maharashtra	595	5
25	State Bank Of Travoncore	555	6
26	SBM	533	5
27	Dena Bank	500	4
28	SB-Indore	350	4
29	J&K Bank	260	2
30	South Indian Bank	250	2
31	Karnataka Bank	210	3
32	SBS	100	1
	Total	137877	

Annexure 4

List of National Non-Banking Institutions

	Name of Institution	Loan (in crores)	No. of Projects
1	PFC	159023	52
2	REC	101381	36
3	IIFCL	6258	10
4	LIC	5495	15
5	HUDCO	3274	12
6	L&T Infra Dev Project	790	4
7	IDFC	575	2
8	PTC	549	3
9	NCRPB	500	1
10	SIDBI	258	3
11	L&T Finance Ltd	55	1
	Total	278158	

Annexure 5

List of National Private Commercial Banks

	Name of Institution	Loan (in crores)	No. of Projects
1	Karur Vysya Bank	280	2
2	ICICI Bank	12050	5
3	HDFC Bank	NA	0
4	Kotak Mahindra bank	NA	
5	Axis Bank	2018	6
6	TMP	139	2
7	Federal Bank	650	3
8	Yes Bank	450	2
		15587	



