

# Coal extraction data

**Richard Heede**  
 Climate Mitigation Services  
 File started: 11 January 2005  
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## Singareni Collieries, India

[www.sccmines.com](http://www.sccmines.com) Kothagudem

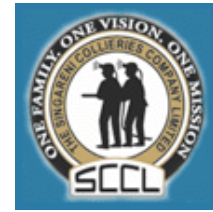
yellow column indicates original reported units

100 percent State-owned

### Production / Extraction data

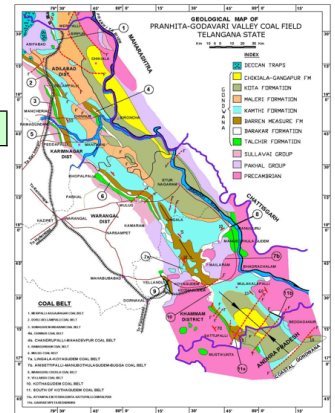
Year	Lignite		Hard Coal		Total Coal	
	Gross production	Gross production	Gross production	Gross production	Gross production	Gross production
	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr
					<b>Total India Coal</b>	<b>Singareni Collieries</b>
1946					33.1	2
1947					32.9	2
1948					34.7	3
1949					35.6	3
1950					38.0	3
1951					39.9	3
1952					39.5	3
1953					40.5	3
1954					42.3	3
1955					45.1	3
1956					49.4	4
1957					51.5	4
1958					53.6	4
1959					58.0	4
1960					61.9	4
1961					67.9	5
1962					73.8	5
1963					70.6	5
1964					76.6	6
1965					77.8	6
1966					78.4	6
1967					80.9	6
1968					87.7	6
1969					85.1	6
1970					80.2	6
1971					85.6	6
1972	17	1.3	68.3	5.0	85.6	7
1973	30	2.2	60.4	4.4	90.9	7
1974	44	3.2	52.6	3.8	96.2	7
1975	57	4.1	44.7	3.2	101.5	7
1976	70	5.1	36.8	2.7	106.8	8
1977	83	6.0	28.9	2.1	112.1	8
1978	96	7.0	21.1	1.5	117.4	9
1979	109	7.9	13.2	1.0	122.7	9
1980	123	8.9	5.3	0.4	128	9
1981	134	9.7	5.8	0.4	140	10
1982	142	10.3	6.2	0.4	148	11
1983	150	10.9	6.5	0.5	156	11
1984	161	11.7	7.0	0.5	168	12
1985	167	12.1	7.3	0.5	175	13
1986	183	13.2	8.0	0.6	191	14
1987	198	14.4	8.6	0.6	207	15
1988	216	15.7	9.4	0.7	225	16
1989	222	16.1	9.6	0.7	231	17
1990	229	16.6	10.0	0.7	239	17
1991	256	18.6	11.1	0.8	267	19
1992	264	19.2	11.5	0.8	276	20
1993	278	20.2	12.1	0.9	290	21
1994	289	21.0	12.6	0.9	302	22
1995	304	22.0	13.2	1.0	317	23
1996	325	23.6	14.2	1.0	339	25
1997	337	24.5	14.7	1.1	352	26
1998	339	24.6	14.8	1.1	354	26
1999	345	25.0	15.0	1.1	360	26
2000	357	25.9	15.5	1.1	373	30
2001	372	27.0	16.2	1.2	389	31
2002	387	28.1	16.8	1.2	404	33
2003	411	29.8	17.9	1.3	429	34
2004	436	31.6	19.0	1.4	455	35
2005	462	33.5	20.1	1.5	482	36
2006	488	35.4	21.2	1.5	509	38
2007	519	37.6	22.6	1.6	541	41
2008	522	37.9	22.7	1.6	545	45
2009	526	38.1	22.9	1.7	549	50
2010	554	40.2	24.1	1.7	578	51
2011	566	41.1	24.6	1.8	591	52
2012	652	47.3	28.4	2.1	681	53
2013	643	46.7	28.0	2.0	671	50
2014	685	49.7	28.5	2.1	713	53
2015	718	52.1	28.9	2.1	747	60
2016	732	53.1	29.7	2.2	762	61
2017	760	55.1	30.8	2.2	790	62
2018						64
<b>Total</b>	<b>14,988</b>	<b>1,087</b>	<b>1,817</b>	<b>132</b>	<b>17,341</b>	<b>1,398</b>

Percent of total India from 1947 to 1999 actual Singareni production data 2000-2010



1960-1969 Based on BuMines India

1970-2004 EIA data for India



[sccmines.com/sccnew/company\\_about-us\\_godavari-valley-map.asp](http://sccmines.com/sccnew/company_about-us_godavari-valley-map.asp)

	cumulative prod million tonnes
SCCL 1920-2009	929
CMS 1947-2009	890

Singareni	India total
2000-2018	2000-2010
million tonnes	million tonnes
30.3	372.5
30.8	388.7
33.2	403.8
33.9	429.0
35.3	455.2
36.1	481.8
37.7	509.4
40.6	541.3
44.5	544.9
50.4	548.6
51.3	578.2
52.1	590.8
53.2	680.6
50.5	671.4
52.5	713.5
60.4	747.1
61.3	761.7
62.0	790.5
64.4	-

816 2000-2017 only 10,209

% Singareni of India 8.00%

Coal Types:	Lignite	Sub-bituminous	Bituminous	Metallurgical	Total India 1980-2017
Percent 1980-2017	7.35%	88.53%	2.88%	1.24%	100.00%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
96																	
97	<b>EIA "International Energy Statistics" 1980 - 2017 for India</b>																
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143	subt. 1980-2017	1,108,308	13,343,823	434,149	186,777	15,073,057											
144	percent of 2017	6.40%	89.71%	2.85%	1.05%	100%											
145	<b>% 1980-2017:</b>	7.35%	88.53%	2.88%	1.24%	100%											

EIA data updated June 2019



**Singareni Collieries coal production, 2007-2017**

PERFORMANCE OF SCCL AT A GLANCE											
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Coal Production (Mill.Tons)	40.60	44.54	50.43	51.33	52.21	53.19	50.47	52.54	60.38	61.34	62.01
Coal despatches (Mill.Tons)	41.79	44.41	50.42	50.05	51.40	53.27	47.89	52.66	58.68	60.84	64.62
Productivity(overall OMS)(T)	2.63	3.01	3.35	3.59	3.94	3.94	3.86	4.20	4.74	4.75	4.88
OB Removal(Mill.Cu.Mtr)	140.72	184.64	247.05	216.96	209.73	175.84	170.29	262.82	310.76	315.00	392.75
Manpower (as on 31st March of that financial year ending)	75,573	70,586	69,043	67,615	66,466	64,600	61,778	58,837	58,491	56,282	54,043

[https://sclmines.com/scclnew/performance\\_production.asp](https://sclmines.com/scclnew/performance_production.asp)

In view of the low calorific values of coals mined by Singareni (tables at right), CMS assigns the emission factor for sub-bituminous to Singareni's coal production. (EIA data does not distinguish between bituminous and sub-bituminous production.)

**Singareni Collieries coal production, 2005-2013.**

PERFORMANCE OF SCCL AT A GLANCE									
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Coal Production (Mill.Tons)	36.14	37.71	40.60	44.54	50.43	51.33	52.21	53.19	50.47
Coal despatches (Mill.Tons)	35.32	37.48	41.79	44.41	50.42	50.05	51.40	53.27	47.89
Productivity(overall OMS)(T)	2.16	2.39	2.63	3.01	3.35	3.59	3.94	3.94	3.86
OB Removal(Mill.Cu.Mtr)	115.58	139.86	140.72	184.64	247.05	216.96	209.73	175.84	170.29
Manpower (as on 31st March of that financial year ending)	86,025	82,224	75,573	70,586	69,043	67,615	66,466	64,600	61,778

[www.sclmines.com/scclnew/performance\\_production.asp](http://www.sclmines.com/scclnew/performance_production.asp)

**Reserves**

**District Wise Reserves Of Godavari Valley Coalfield**

As on 01.04.2014

DISTRICT	DEPTH (m)	GRADES							TOTAL (million tonnes)
		A	B	C	D	E	F	G	
ADILABAD	0-300	1.32	29.71	288.52	718.50	447.69	554.82	77.58	2118.13
	300-600	0.16	21.70	260.07	519.06	404.02	390.48	12.04	1607.52
	>600	0.00	1.20	5.15	25.84	14.81	13.71	0.05	60.76
	<b>TOTAL</b>	<b>1.47</b>	<b>52.61</b>	<b>553.74</b>	<b>1263.39</b>	<b>866.52</b>	<b>959.01</b>	<b>89.66</b>	<b>3786.42</b>
KARIMNAGAR	0-300		45.43	417.09	306.71	292.88	52.03	0.66	1114.80
	300-600	0.15	67.70	133.86	390.01	299.73	34.84	0.10	926.39
	>600								
	<b>TOTAL</b>	<b>0.15</b>	<b>113.13</b>	<b>550.95</b>	<b>696.72</b>	<b>592.61</b>	<b>86.87</b>	<b>0.76</b>	<b>2041.19</b>
WARANGAL	0-300	32.57	91.58	146.59	106.22	207.77	243.42	26.41	854.57
	300-600	20.73	55.41	81.53	66.74	80.36	116.31	4.82	425.90
	>600	1.29	1.74	3.18	1.96	1.51	1.67	0.00	11.36
	<b>TOTAL</b>	<b>54.59</b>	<b>148.72</b>	<b>231.31</b>	<b>174.92</b>	<b>289.65</b>	<b>361.41</b>	<b>31.23</b>	<b>1291.83</b>
KHAMMAM	0-300	17.83	73.47	400.22	180.50	343.37	804.23	464.17	2283.79
	300-600	6.84	41.72	233.24	127.25	108.21	113.65	39.40	670.31
	>600								
	<b>TOTAL</b>	<b>24.67</b>	<b>115.19</b>	<b>633.46</b>	<b>307.75</b>	<b>451.58</b>	<b>917.88</b>	<b>503.57</b>	<b>2954.10</b>
<b>TOTAL</b>	0-300	51.72	240.19	1252.42	1311.93	1291.71	1654.50	568.82	6371.29
	300-600	27.87	186.52	708.70	710.06	892.32	655.29	56.36	3630.12
	>600	1.29	2.94	8.34	2742.78	16.33	15.38	0.05	72.13
	<b>GRAND TOTAL</b>	<b>80.89</b>	<b>429.66</b>	<b>1969.46</b>	<b>2442.78</b>	<b>2200.36</b>	<b>2325.17</b>	<b>625.22</b>	<b>10073.54</b>

[www.sclmines.com/scclnew/company\\_about-us\\_coalreserves.asp](http://www.sclmines.com/scclnew/company_about-us_coalreserves.asp)

GRADE	UHV RANGE - K.CAL / KG
A	Exceeding 6200
B	Exceeding 5600 but not exceeding 6200
C	Exceeding 4940 but not exceeding 5600
D	Exceeding 4200 but not exceeding 4940
E	Exceeding 3360 but not exceeding 4200
F	Exceeding 2400 but not exceeding 3360
G	Exceeding 1300 but not exceeding 2400

[sclmines.com/COAL\\_grade\\_spec.asp](http://sclmines.com/COAL_grade_spec.asp)

Singareni at a Glance	
Mines	Under Ground - 36 : Opencast - 14
Manpower (as on 31-10-2011)	66,997
Targetted Production(2011-12)	53.4 Million tonnes
Targetted Production(2010-11)	51.3 Million tonnes
Actual Production(2010-11)	51.33 Million tonnes
Output per manshift(Mines+Depts)(2010-11)	2.90 Tonnes
Major consumers	Power,Cement and others

[www.sclmines.com](http://www.sclmines.com), viewed 29Nov11

**Cell:** D9**Comment:** Rick Heede:

SCCL: In the year 1871, Dr. King of the Geological Survey of India discovered coal near the village of Yellandu in Khammam district and one of the important coal seams bore his name. The Hyderabad (Deccan) Company Limited incorporated in England acquired mining rights in 1886 to exploit coal found in Yellandu area. The present Company was incorporated on 23rd December 1920 under the Hyderabad Companies Act as a public limited company with the name 'The Singareni Collieries Company Limited' (SCCL). It acquired all the assets and liabilities of the Hyderabad (Deccan) Co. Ltd. Best & Co., acted as Secretaries and Selling Agents. The State of Hyderabad purchased majority shares of the Company in 1945. From 1945 to 1949, the Hyderabad Construction Co., Ltd., was acting as Managing Agent. In 1949 this function was entrusted to Industrial Trust Fund by the then Government of Hyderabad. The controlling interest of the Company devolved on the Government of Andhra Pradesh in 1956 pursuant to the reorganization of States. Thus, the SCCL became a Government Company under the Companies Act in 1956.

Large-scale expansion of SCCL was undertaken during the initial Five-year plans. In 1960 the Govt. of India started its participation in the equity of the Company and also started extending loan assistance. Thus since March 1960 it has been jointly owned by the Government of Andhra Pradesh and the Govt. of India. In 1974 the Government of India transferred its share capital to the Coal Mines Authority Limited.

The Company's accredited function is to explore and exploit the coal deposits in the Godavari valley coalfield, which is the only repository of coal in South India. Mining activities of SCCL are presently spread over four districts of Andhra Pradesh Viz. Adilabad, Karimnagar, Khammam and Warangal.

The studies of Geological Survey of India attribute as much as 22016 million tonnes of coal reserves in the Godavari valley coalfield. The inventory covers up to a depth of 1200 metres and it includes reserves proved, indicated as well as inferred.

The coal extracted by SCCL in the Godavari valley coalfield up to the year 2009-10 was about 929.12 million tonnes.

[www.scclmines.com/history.asp](http://www.scclmines.com/history.asp)

**Cell:** I9**Comment:** Rick Heede:

The Singareni Collieries Company Limited (SCCL) is a Government coal mining company jointly owned by the Government of Telangana and Government of India on a 51:49 equity basis. The Singareni coal reserves stretch across 350 Km of the Pranahita - Godavari Valley of Telangana with a proven geological reserves aggregating to whopping 8791 million tonnes. SCCL is currently operating 18 opencast and 29 underground mines in 4 districts of Telangana with a manpower around 56,282.

[https://scclmines.com/scclnew/company\\_about-us.asp](https://scclmines.com/scclnew/company_about-us.asp) (May 2018)

**Cell:** M9**Comment:** Rick Heede:

Wiki: "the company is jointly owned by the Andhra Pradesh government (51 percent) and the Union Government (49 percent). The Union Government's administration of the company is through the Ministry of Coal. SCCL is currently operating 13 opencast and 42 underground mines in 4 districts of Andhra Pradesh with a manpower around 78,000.

**Cell:** D11**Comment:** Rick Heede:

Coal production by coal mining companies and state-owned enterprises, including subsidiaries of oil and gas companies.

Coal types produced are not ordinarily reported by coal operators (except for metallurgical coal). We distinguish, where possible and reasonably well known, between hard (bituminous and subbituminous) and soft (lignite or peat) coals, especially for the larger companies operating in regions such as Australia and India where soft coals are predominant. Soft coals have lower carbon content per tonne than do hard coals.

**Cell:** J17**Comment:** Rick Heede:

Coal production 1947-1960 from Prasad (1986), page 132.

Prasad, Anubhuti Ranjan (1986) Coal industry of India, S.B. Nangia, New Delhi, 256 pp.

**Cell:** G21**Comment:** Rick Heede:

Over the nine-year period 2000-2010 for which we have detailed Singareni production data, CMS computes Singareni's percent of total coal production in India (using EIA statistics). This fraction is 8.77 percent. This factor is used to estimate Singareni's production 1947-1999 as the percent of total Indian coal production.

See computation in columns "M" and "N", and cell N84.

**Cell:** E27**Comment:** Rick Heede:

Indian coal production from Energy Information Administration (2005) International Energy Annual 2003, Table 5.3 (Bituminous) and Table 5.1 (Lignite).

**Cell:** D29**Comment:** Rick Heede:

Indian coal production from Energy Information Administration (2005) International Energy Annual 2003, Table 5.3 (Bituminous) and Table 5.1 (Lignite).

Data for 1960-1971: Bureau of Mines, Minerals Yearbook, Table 54, various years.

**Cell:** D42**Comment:** Rick Heede:

CAI uses EIA data on coal production in India from 1980 to the current year (as of July 2019, through 2017). Previous editions of world coal production by rank and by country attributed the majority of coal production as "bituminous" coal, and minor amounts of sub-bituminous. This has in recent years been revised to the preponderance of sub-bituminous, which CAI argued years ago was a more appropriate classification, based on coal resource assessments cited elsewhere. This does not effect earlier coal production data by EIA and US Bureau of Mines for 1960 to 1971, hence the interpolated data, while it appears mis-applied, works out mathematically between soft coals (lignite and sub-bituminous) and hard coals (bituminous and metallurgical coal).

Lacking coal production reports for Singareni prior to the year 2000, CAI calculates the proportion of total coal production in India from 2000 to 2017 (see below "% Singareni of India" cell N92), as 8.0% as of this writing (July 2019). This factor is applied to Indian coal production from 1973 to 1999.

<https://www.eia.gov/beta/international/data/browser/index.cfm>

**Cell:** D50**Comment:** Rick Heede:

EIA (2019) International Energy Statistics on World Coal Production (lignite, bituminous, anthracite, and metallurgical coal), by country; data for 1980-2017; <https://www.eia.gov/beta/international/data/browser/>

**Cell:** G50**Comment:** Rick Heede:

EIA (2019) International Energy Statistics on World Coal Production (lignite, bituminous, anthracite, and metallurgical coal), by country; data for 1980-2017; <https://www.eia.gov/beta/international/data/browser/Rick>

Heede: EIA (2009) World Bituminous Coal Production, 1980-2006, plus online EIA data for 2007-2008, Indian bituminous production, in million tons per year. CMS note: EIA does show Indian production by coal rank, e.g, bituminous vs subbituminous coal production. Sangareni does list its reserves by rank (see [scclmines.com/gvc\\_coalreserves.htm](http://scclmines.com/gvc_coalreserves.htm)), but not its production.

**Cell:** N62**Comment:** Rick Heede:

Company website, <http://scclmines.com/history.asp>:

"The studies of Geological Survey of India attribute as much as 16997 million tonnes of coal reserves in the Godavari valley coalfield. The inventory covers up to a depth of 1200 metres and it includes reserves confirmed, indicated as well as inferred.

The coal extracted by SCCL in the Godavari valley coalfield up to the year 2009-10 was about 929.12 million tonnes.

[www.scclmines.com/history.asp](http://www.scclmines.com/history.asp)

**Cell:** M68**Comment:** Rick Heede:

Singareni fiscal year is April-March. FY 2010-2011 is entered for CY 2010.

**Cell:** K70**Comment:** Rick Heede:

CMS uses data from SCCL (see column "M") for 2000-2008. SCCL production data prior to 2000 is not available on the website.

CMS has sent (17Feb10) an email requesting production data for 1920-1999, as well recent data on prod by coal grade, to Director of Operations Sri J. V. Dattatreyyulu, [dop@scclmines.com](mailto:dop@scclmines.com).

**Cell:** M70**Comment:** Rick Heede (Feb10):

Production performance data for 2000/01 to 2008/09 from SCCL (<http://scclmines.com/opstatistics.asp>); CMS converts from "Lakh tonnes" to million tonnes per year (one lakh = 10^5).

**Cell:** O70**Comment:** Rick Heede:

EIA total coal production in India 2000-2008 converted to million tonnes.

Singareni

**Cell:** G74

**Comment:** Rick Heede:  
EIA (2006) World Bituminous Coal Production, 1980-2004, Table 5.3

**Cell:** J79

**Comment:** Rick Heede:  
calculated as if Singareni is just 7.4 % of total

**Cell:** K79

**Comment:** Rick Heede:  
AR 200910 pdf report pg 5; see page 6 for info about underground vs opencast production; 2008 numbers are not consistent with lignite/bituminous reported here, although total sum is consistent

**Cell:** M87

**Comment:** Rick Heede:  
Singareni Collieries Production performance data at a glance for 2008-2017. See chart reproduced below.

**Cell:** M88

**Comment:** Rick Heede:  
2018-2019 productin data available at [https://scclmines.com/scclnew/performance\\_production.asp](https://scclmines.com/scclnew/performance_production.asp)

**Cell:** N92

**Comment:** Rick Heede (Feb10):  
Over the nine-year period 2000-2008 for which we have detailed Singareni production data, CMS computes Singareni's percent of total coal production in India (using EIA statistics). This fraction is 8.69 percent. This factor is used to estimate Singareni's production 1960-1999 as the percent of total Indian coal production.

**Cell:** E93

**Comment:** Rick Heede:  
Note: CAI has not found definitive data regarding the coal quality as mined or dispatched, though the company discusses grades of coal and heat content. We conservatively apply the subbituminous emission factor (1.864 tCO<sub>2</sub>/tonne) for Coal Indial (as we do Singareni) in view of India's coal resources typically having high ash content and low calorific value. This may be revised with better information. Alternately, thermal coal emission factor (2.266 tCO<sub>2</sub>/t) or bituminous coal may be applied. Note that EIA classifies coal production as predominantly bituminous.

**Cell:** J98

**Comment:** Rick Heede:  
EIA (2019) International Energy Statistics on World Coal Production (lignite, bituminous, anthracite, and metallurgical coal), by country; data for 1980-2017; <https://www.eia.gov/beta/international/data/browser/>