भारत सरकार खान मंत्रालय भारतीय खान ब्यूरो

Government of India Ministry of Mines INDIAN BUREAU OF MINES

खनन पट्टों एवं पूर्वेक्षण अनुज्ञापत्रों २०१६ की बुलेटिन

(परमाणु खनिजों, कोयला, लिग्नाइट, पेट्रोलियम, प्राकृतिक गैस एवं गौण खनिजों से पृथक्)

BULLETIN OF

MINING LEASES & PROSPECTING LICENCES, 2016

(Excluding Atomic Minerals, Coal, Lignite, Petroleum, Natural Gas and Minor Minerals)



Issued by
Controller General
Indian Bureau of Mines
Prepared by
Mineral Economics Division

जारी द्वारा महानियंत्रक भारतीय खान ब्यूरो निर्मित द्वारा खनिज अर्थषास्त्र प्रभाग

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Preface

Indian Bureau of Mines is a repository of database on mineral sector. Directory of Mining Leases is one such database that comprises details of information on Mining Leases granted/executed/renewed. Bulletin of Mineral Information, Bulletin of Mining Leases and Prospecting Licences are published based on this information. Currently in its 19th edition, this publication, "Bulletin of Mining Leases and Prospecting Licences 2016" (Excluding Atomic Minerals, Coal, Lignite, Petroleum, Natural Gas & Minor Minerals) contains information on Mining Leases, Prospecting Licences, Composite Licences, as well as Reconnaissance Permits /Non Exclusive Reconnaissance Permits as on 31-3-2016. Information sourced from the Directory of Mining Leases after assortment and analysis has been segregated into state wise, district wise, mineral wise and sector wise category and integrated into the text for easy comprehension. Further, the data on distribution of Mining Leases executed across the country have been demarcated and classified into high, medium and low mineral-potential bearing districts to facilitate easy assimilation.

Predominant portions of this publication is based on the Directory of Mining Leases as on 31-3-2016, which in turn was compiled from the data supplied by the different State Governments under the statutory provision of Rule 59(2) of Minerals (Other than Atomic and Hydrocarbons Energy Minerals) Concessions Rules, 2016. So far as prospecting licences, prospecting cum mining leases/ Reconnaissance Permits (RP)/ Non Exclusive Reconnaissance Permits (NERP) are concerned, the individual licence/permit deeds and the consolidated annual returns received under Rule 59(1) and (2) of Minerals (Other than Atomic and Hydrocarbons Energy Minerals) Concessions Rules, 2016, for the same period have been utilised.

Indian Bureau of Mines is thankful to all the State Government Departments for furnishing information on mining leases, prospecting licences, composite licences (prospecting licence-cum-mining lease), as well as RP/NERP and it is hoped that this publication would be quite useful to all those associated with mineral sector.

Nagpur

Dated: 25/09/2017

(Ranjan Sahai)

Controller General Indian Bureau of Mines

Contents

1.	INTR	ODUCTION	1
2.	LANI	USE SCENARIO	3
3.	MININ	NG LEASES	4
	3.1	State wise Analysis	4
	3.2	District wise Analysis	42
	3.3	Mineral wise Analysis	45
	3.4	Frequency Distribution	48
	3.5	Sector wise Distribution	52
4.	PRO	DSPECTING LICENCES	61
	4.1	State wise Distribution	61
	4.2	Mineral wise Distribution	61
5.	REC	ONNAISSANCE PERMITS	64

Chapter



Introduction

India has a total geographical area of 328.73 million hectares. Of this, the mining lease area, except for fuel, atomic minerals and all minor minerals, constitutes around 0.11% (354,909 hectares). The position of mining leases as on 31.3.2016 reveals that there are as many as 4,128 mining leases (excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals) granted in the country by the State Governments covering 40 minerals (excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals) with a total lease area of about 354,909 hectares and spread over 24 States. These 40 minerals are broadly classified into metallic and non-metallic minerals. This bulletin highlights state wise, sector wise and district wise distribution of mining leases, frequency distribution of mining leases, prospecting licences and reconnaissance permits, etc. Though apparently negligible, the mining lease area of the country is considered as an important land use segment as it contributes to the economic growth of the country. Besides, it calls for environmental protection, as land under leases is subjected to degradation during the process of mining activities.

India is well-endowed with a wide variety of naturally occurring minerals. These are being exploited to cater to the needs of domestic mineral-based industries as well as to meet export demands to earn foreign exchange. Today, as many as 40 minerals including major metallic and non-metallic minerals are being exploited in the country excluding coal, atomic, minerals and minor minerals.

The Indian Mineral Sector is opened fully to private sector including domestic and foreign. The Government of India in its National Mineral Policy 2008, has enunciated policy measures like assured right to next stage mineral concession, transferability of mineral concessions and transparency in allotment of concession in order to reduce delays and with a purpose to weed out impediments that hinder inflow of investments and technology into the Mining Sector of the country. These policy initiatives would provide suitable environment for exploration and judicious utilisation of the country's mineral wealth. Apart from these, the National Mineral Policy has enunciated several policy measures that seek to strengthen the

framework/institutions that support the Indian Mining Sector which includes Geological Survey of India, Indian Bureau of Mines and State Directorates of Geology & Mining.

Under Rule 59 (1) of Minerals (other than Atomic and Hydrocarbons Energy Minerals) Concession Rules 2016, a copy of every mineral concession granted or renewed under the Act and the rules made thereunder shall be supplied by each State Government within two months of such grant or renewal to the Controller General, Indian Bureau of Mines. Besides, under Rule 59 (2) said Rules 2016, a consolidated annual return of all mineral concessions granted or renewed under the Act and rules made thereunder shall be supplied by each State Government to the Controller General, Indian Bureau of Mines in such form as may be specified by him (Proforma 'A'; prospecting licences/mining leases renewed in Proforma 'B' and termination of mining leases & reasons for termination in Proforma 'C' for the preceding financial year ending in March), not later the 30th day of June following the year to which the return relates.

The information pertaining to mining leases and prospecting licences as received is then compiled, processed and updated. These stored data can be retrieved and made available for analysis & further requisite studies and for the information seekers.

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Land Use Scenario

India's geographical area is about 328.73 million hectares. The entire geographical area is broadly classified into 7 segments which are as follows.

S. No.	Area/Segment	Total Area*	Percentage
		(Million ha.)	of Area
	Total Geographical Area	328.73	100
1	Net Area Sown (Crop Area)	141.43	43.02
2	Permanent Pastures & other Grazing Land	10.26	3.12
3	Forest	71.83	21.85
4	Mining Lease Area*	0.35	0.11
5	Fallow Lands	24.85	7.56
6	Land Not Available for Cultivation	43.86	13.34
7	Other area	36.15	11.00

Source: Directorate of Economics & Statistics, Department of Agriculture & Cooperation, Pocket Book on Agricultural Statistics, 2016;

The mining lease area constitutes around 354908.75 hectares which is approximately 0.11% of the total geographical area. However, mining lease area, though a minuscule segment in the total land area, continues to be an important segment and an essential contributing factor to the economy of the country. At the same time, there is an imperative need to pay due attention to environment aspects as these land areas under mining leases are subjected to various processes of mining activity and are liable to degradation.

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^{*} Source: ML Directory as on 31.03.2016 prepared by IBM based on data received from State Govts./UTs. (Excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals)

Mining Leases

3.1 STATE WISE ANALYSIS

As per the Lease Directory as on 31.3.2016, there were 4,128 mining leases granted by State Governments for 40 different minerals, covering an area of 354908.75 hectares in the country. States rich in minerals where maximum number of mining leases were granted are Madhya Pradesh (17%) followed by Tamil Nadu (13%), Gujarat & Andhra Pradesh (11% each), Karnataka (10%), Odisha (8%), Goa (7%), Chhattisgarh, Maharashtra, Jharkhand & Rajasthan (4% each) and Telangana (3%). These twelve States together account for about 96% of the total leases executed and the remaining twelve States where such leases were executed accounted for about 4 percent of the total mining leases.

The maximum area in percentage covered under mining leases in different States are Odisha (20%) followed by Rajasthan (14%), Karnataka (11%), Madhya Pradesh (9%), Andhra Pradesh, Jharkhand & Chhattisgarh (7% each), Gujarat & Goa (6% each), Maharashtra, Telangana & Tamil Nadu (3% each). These twelve States account for about 96% of the total mining lease area granted and the remaining 4 percent was accounted for by the rest twelve States.

The State wise mining lease distribution together with lease areas as well as state wise/district wise distribution of mining leases as on 31.03.2016 are furnished in Tables - 1 to 4.

Table – 1: State wise Summary of Lease Distribution As on 31.03.2016

State	No. of Leases	Percentage	Area (In ha)	Percentage
Andhra Pradesh	462	11.19	26438.25	7.45
Assam	7	0.17	889.50	0.25
Bihar	12	0.29	387.47	0.11
Chhattisgarh	177	4.29	23546.78	6.63
Goa	281	6.81	21280.45	6.00
Gujarat	467	11.31	22434.02	6.32
Haryana	4	0.10	46.85	0.01
Himachal Pradesh	41	0.99	2465.80	0.69
Jammu & Kashmir	35	0.85	2012.48	0.57
Jharkhand	164	3.97	23846.08	6.72
Karnataka	393	9.52	40020.59	11.28
Kerala	15	0.36	2246.49	0.63
Madhya Pradesh	697	16.89	32613.27	9.19
Maharashtra	167	4.05	12401.94	3.49
Manipur	1	0.02	132.78	0.04
Meghalaya	17	0.41	601.29	0.17
Odisha	350	8.48	69207.98	19.50
Rajasthan	163	3.95	50169.61	14.14
Sikkim	3	0.07	96.32	0.03
Tamil Nadu	543	13.15	9470.21	2.67
Telangana	113	2.74	10990.12	3.09
Uttar Pradesh	5	0.12	3397.80	0.96
Uttarakhand	7	0.17	191.79	0.05
West Bengal	4	0.10	20.88	0.01
All India	4128	100.00	354908.75	100.00

Source: Information received from respective State Government Departments and Regional Offices of IBM. (Excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals)

Table – 2 : Mineral wise Summary of Lease Distribution As on 31/03/2016

S. No.	Minerals	No. of Leases	Area (In ha)
1	Amethyst	3	7.83
2	Apatite	2	20.17
3	Aquamarine	1	24.29
4	Asbestos	1	49.22
5	Bauxite	372	29106.76
6	Borax	1	159.00
7	Chromite	34	8955.19
8	Copper Ore	14	4253.98
9	Diamond	2	275.96
10	Emerald	1	46.32
11	Epidote	1	215.83
12	Fluorite	11	722.84
13	Garnet	105	1617.59
14	Garnet(Gem)	2	38.95
15	Gold	11	7445.46
16	Graphite	105	3482.39
17	lolite	14	195.70
18	Iron ore	713	90301.95
19	Kyanite	30	1446.75
20	Lead & Zinc ore	13	17977.92
21	Limeshell	25	2856.78
22	Limestone	2015	156016.02
23	Magnesite	38	1894.36
24	Manganese Ore	321	17060.54
25	Marl	1	4.90
26	Moulding Sand	35	841.85
27	Perlite	1	144.88
28	Phosphorite	11	2158.60
29	Red oxide	4	80.34
30	Rock Phosphate	1	13.20
31	Ruby	6	130.00
32	Sapphire	1	673.40
33	Semi-precious Stones	13	134.43
34	Siliceous Earth	25	226.75
35	Sillimanite	7	3027.06
36	Tin	14	300.17
37	Vermiculite	104	1861.04
38	White clay White shale	39 15	644.40 77.34
39 40	Wollastonite	16	418.59
40	Total	4128	354908.75

Source: Information received from respective State Government Departments and Regional Offices of IBM. (Excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals)

Table – 3 : State wise/Mineral wise Distribution of Mining Lease As on 31.3.2016

State	Minerals	No. of	Area
		Leases	(In ha)
Andhra Pradesh	Apatite	1	16.12
	Garnet	7	824.16
	Gold	1	597.82
	Iron ore	58	2411.67
	Kyanite	1	33.59
	Lead & Zinc ore	1	15.89
	Limeshell	3	46.74
	Limestone	224	19694.04
	Manganese ore	37	755.05
	Moulding sand	2	23.48
	Red Oxide	2	26.34
	Semi-precious Stones	13	134.43
	Vermiculite	93	1757.02
	White clay	4	24.56
	White shale	15	77.34
	Total	462	26438.25
Assam	Limestone	7	889.50
	Total	7	889.50
Bihar	Limestone	10	207.47
Biriar		12	387.47
	Total	12	387.47
Chhattisgarh	Bauxite	26	5399.90
	Graphite	1	67.11
	Iron ore	19	8737.22
	Limestone	110	9003.23
	Moulding sand	6	33.65
	Tin	14	300.17

Table-3 (contd.)

State	Minerals	No. of	Area
		Leases	(In ha)
Chhattisgarh (concld.)	White shale	1	5.50
	Total	177	23546.78
Goa	Bauxite	4	1791.08
	Iron ore	237	16978.79
	Manganese ore	40	2510.58
	Total	281	21280.45
Gujarat	Bauxite	149	5439.04
	Copper ore	1	184.98
	Fluorite	2	63.20
	Limestone	305	16572.88
	Manganese ore	1	2.95
	Marl	1	4.90
	Moulding sand	3	5.82
	Perlite	1	144.88
	White clay	4	15.37
	Total	467	22434.02
Haryana	Limestone	4	46.85
	Total	4	46.85
Himachal Pradesh	Limestone	41	2465.80
	Total	41	2465.80
Jammu & Kashmir	Borax	1	159.00
	Limestone	32	694.78
	Magnesite	1	485.30
	Sapphire	1	673.40
	Total	35	2012.48

Table-3 (contd.)

State	Minerals	No. of	Area
		Leases	(In ha)
Jharkhand	Bauxite	45	3541.20
	Copper ore	3	2313.37
	Garnet	1	8.20
	Gold	1	19.50
	Graphite	19	840.98
	Iron ore	48	11484.26
	Kyanite	7	1005.00
	Limestone	39	4612.38
	Manganese ore	1	21.19
	Total	164	23846.08
Karnataka	Bauxite	5	370.02
	Chromite	6	1306.39
	Copper ore	2	416.83
	Gold	9	6828.14
	Graphite	4	235.03
	Iron ore	120	10208.92
	Kyanite	7	47.97
	Limeshell	16	1451.03
	Limestone	139	14941.75
	Magnesite	9	163.83
	Manganese ore	52	3416.75
	Moulding sand	19	616.42
	Ruby	3	9.20
	Vermiculite	2	8.31
	Total	393	40020.59
Kerala	Bauxite	2	0.72
	Graphite	1	1.25

Table-3 (contd.)

State	Minerals	No. of	Area
		Leases	(In ha)
Kerala	Iron ore	1	86.06
(concld.)	Limeshell	5	1354.40
	Limestone	1	245.69
	Sillimanite	5	558.37
	Total	15	2246.49
Madhya Pradesh	Bauxite	99	1268.97
	Copper ore	1	480.10
	Diamond	2	275.96
	Iron ore	31	321.65
	Lead & Zinc ore	2	12.76
	Limestone	457	27609.96
	Manganese ore	91	2062.13
	Phosphorite	5	150.67
	Rock Phosphate	1	13.20
	Vermiculite	1	2.65
	White clay	7	415.22
	Total	697	32613.27
Maharashtra	Bauxite	31	4227.94
	Chromite	1	16.22
	Fluorite	1	32.70
	Iron ore	26	1268.19
	Kyanite	12	206.17
	Limestone	51	5469.37
	Manganese ore	40	1003.94
	Moulding sand	2	155.07
	White clay	3	22.34
	Total	167	12401.94

Table-3 (contd.)

State	Minerals	No. of	Area
		Leases	(In ha)
Manipur	Chromite	1	132.78
	Total	1	132.78
Meghalaya	Limestone	16	596.65
	Sillimanite	1	4.64
	Total	17	601.29
Odisha	Aquamarine	1	24.29
	Asbestos	1	49.22
	Bauxite	6	6527.70
	Chromite	26	7499.80
	Garnet (Gems)	1	33.95
	Graphite	73	2060.49
	Iolite	14	195.70
	Iron ore	144	36228.63
	Limestone	38	7494.21
	Manganese ore	42	6509.14
	Ruby	3	120.80
	Sillimanite	1	2464.05
	Total	350	69207.98
Rajasthan	Bauxite	1	123.20
	Copper Ore	4	762.38
	Emerald	1	46.32
	Epidote	1	215.83
	Fluorite	8	626.94
	Garnet	17	158.94

Contd.

Table-3 (contd.)

State	Minerals	No. of	Area
		Leases	(In ha)
Rajasthan (concld.)	Garnet (Gem)	1	5.00
	Iron ore	19	2495.57
	Kyanite	3	154.02
	Lead & Zinc ore	10	17949.27
	Limestone	40	24754.01
	Magnesite	5	119.75
	Manganese ore	1	18.89
	Phosphorite	5	1994.46
	Red Oxide	2	54.00
	Siliceous earth	25	226.75
	Vermiculite	4	45.69
	Wollastonite	16	418.59
	Total	163	50169.61
Sikkim	Copper ore	3	96.32
	Total	3	96.32
Tamil Nadu	Apatite	1	4.05
	Bauxite	4	416.99
	Garnet	75	604.45
	Graphite	7	277.53
	Limeshell	1	4.61
	Limestone	435	7191.02
	Magnesite	19	947.85
	Vermiculite	1	23.71
	Total	543	9470.21

Table-3 (concld.)

State	Minerals	No. of	Area
		Leases	(In ha)
Telangana	Amethyst	3	7.83
	Garnet	5	21.84
	Iron ore	10	80.99
	Limestone	56	9934.47
	Manganese ore	16	759.92
	Vermiculite	3	23.66
	White clay	20	161.41
	Total	113	10990.12
Uttar Pradesh	Limestone	5	3397.80
	Total	5	3397.80
Uttarakhand	Limestone	3	14.16
	Magnesite	4	177.63
	Total	7	191.79
West Bengal	Moulding sand	3	7.41
	Phosphorite	1	13.47
	Total	4	20.88

Source: Information received from respective State Government Departments and Regional Offices of IBM. (Excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals)

Table-4 : State wise/District wise /Mineral wise Distribution of Mining Leases As on 31.3.2016

State	Districts	Minerals	No. of Leases	Area (In ha)
Andhra Pradesh	Anantapur	Iron ore	8	196.59
		Limestone	34	2410.47
		Red oxide	1	16.22
		Total	43	2623.28
	Chittoor	White shale	1	6.68
		Total	1	6.68
	Cuddapah	Iron ore	10	971.06
		Lead & Zinc ore	1	15.89
		Limestone	21	3583.93
		Total	32	4570.88
	Guntur	Limestone	31	3265.98
		White clay	2	11.79
		White shale	1	33.01
		Total	34	3310.78
	Krishna	Iron ore	5	25.26
		Limestone	15	2051.80
		Total	20	2077.06
	Kurnool	Gold	1	597.82
		Iron ore	29	457.40
		Limestone	119	8365.14
		Red oxide	1	10.12
		White shale	13	37.65
		Total	163	9468.13
	Nellore	Iron ore	2	222.21
		Limeshell	2	42.74
		Moulding sand	2	23.48
		Vermiculite	93	1757.02
		Total	99	2045.45

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Andhra Pradesh	Prakasam	Garnet	4	4.71
(concld.)		Iron ore	4	539.15
		Kyanite	1	33.59
		Total	9	577.45
	Srikakulam	Garnet	2	815.08
		Limeshell	1	4.00
		Total	3	819.08
	Visakhapatnam	Apatite	1	16.12
		Garnet	1	4.37
		Limestone	4	16.72
		Semi-precious Stones	13	134.43
		White clay	2	12.77
		Total	21	184.41
	Vizianagaram	Manganese ore	37	755.05
		Total	37	755.05
Assam	Karbi Anglong	Limestone	1	171.00
		Total	1	171.00
	North Cachar Hills	Limestone	6	718.50
	North Gaeriai Time	Total	6	718.50
Dibar	Dahtas	Limantona	40	007.47
Bihar	Rohtas	Limestone	12	387.47
		Total	12	387.47
Chhattisgarh	Balod	Iron ore	4	2562.69
		Total	4	2562.69

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Chhattisgarh	Baloda Bazar	Limestone	22	4762.16
(contd.)		Total	22	4762.16
	Balrampur	Bauxite	3	3742.63
		Graphite	1	67.11
		Total	4	3809.74
	Bastar	Limestone	15	45.76
		Total	15	45.76
	Bemetara	Limestone	1	17.90
	Zomotara	Total	1	17.90
	Bilaspur	Limestone	2	1668.31
		Total	2	1668.31
	Dantewara	Iron ore	5	2553.42
		Tin	8	116.21
		Total	13	2669.63
	Durg	Limestone	45	1345.49
		Moulding sand	3	12.12
		Total	48	1357.61
	Janjgir-Champa	Limestone	3	713.32
	Janjyn-Ghampa	Total	3	713.32 713.32
		lotai		1 13.32
	Jashpur	Bauxite	2	40.61
	-	Total	2	40.61

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Chhattisgarh	Kabirdham	Bauxite	3	669.64
(contd.)		Limestone	3	17.54
		Total	6	687.18
	Kanker	Bauxite	3	13.22
		Iron ore	7	3238.15
		Moulding sand	1	13.84
		Total	11	3265.21
	Kondagaon	Bauxite	2	27.28
		Total	2	27.28
	Narayanpur	Iron ore	1	192.25
		Total	1	192.25
	Raigarh	Limestone	2	8.86
		Total	2	8.86
	Raipur	Limestone	16	419.24
		Total	16	419.24
	Rajnandgaon	Iron ore	2	190.71
		Limestone	1	4.65
		Moulding sand	2	7.69
		White clay	1	5.50
		Total	6	208.55
	Sukma	Tin	6	183.96
		Total	6	183.96

contd.

Table-4 (contd.)

State	Districts	Minerals	No. of	Area
Chhatticaarh	Surguja	Bauxite	Leases 13	(In ha) 906.52
Chhattisgarh	Surguja			
(concld.)		Total	13	906.52
Goa	North Goa	Iron ore	86	6423.21
		Manganese ore	11	658.70
		Total	97	7081.91
	South Goa	Bauxite	4	1791.08
	Journ Goa	Iron ore	151	10555.58
		Manganese ore	29	1851.88
		Total	184	14198.54
Gujarat	Amreli	Bauxite	1	12.68
		Limestone	4	1780.32
		Total	5	1793.00
	Aravali	Bauxite	4	16.39
	Alavan	Total	4	16.39
	Banaskantha	Copper ore	1	184.98
		Limestone	2	25.00
		Total	3	209.98
	Bhavnagar	Limestone	1	20.00
		Moulding sand	1	2.80
		Total	2	22.80
				22.22
	Chhota Udaipur	Fluorite	2	63.20
		Total	2	63.20

Table-4 (contd.)

State	Districts	Minerals	No. of	Area
Gujarat	Devbhoomi Dwarka	Bauxite	Leases 111	(In ha) 3138.56
(contd.)		Limestone	30	1128.96
		Marl	1	4.90
		Total	142	4272.42
	Gir Somnath	Limestone	83	3361.87
		Total	83	3361.87
	Jamnagar	Limestone	27	904.57
	Jannayar	Total	27	904.57 904.57
		Total	21	304.31
	Junagarh	Limestone	24	315.30
		Total	24	315.30
	Kheda	Bauxite	15	90.40
		Total	15	90.40
	Kachchh	Bauxite	11	2049.46
		Limestone	8	5681.88
		White clay	1	5.00
		Total	20	7736.34
	Panchmahal	Limestone	1	0.49
		Manganese ore	1	2.95
		Total	2	3.44
	Patan	White clay	3	10.37
		Total	3	10.37

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Gujarat	Porbandar	Bauxite	6	112.39
(concld.)		Limestone	118	2295.52
		Total	124	2407.91
	Rajkot	Limestone	3	12.00
		Perlite	1	144.88
		Total	4	156.88
	Sabarkantha	Bauxite	1	19.16
		Limestone	2	2.53
		Total	3	21.69
	Surat	Limestone	2	1044.44
		Total	2	1044.44
	Surendranagar	Moulding sand	2	3.02
		Total	2	3.02
Haryana	Mahendragarh	Limestone	4	46.85
		Total	4	46.85
Himachal Pradesh	Bilaspur	Limestone	1	231.25
		Total	1	231.25
	Mandi	Limestone	1	725.86
		Total	1	725.86
	Sirmur	Limestone	36	475.67
	-	Total	36	475.67

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Himachal Pradesh	Solan	Limestone	3	1033.02
(concld.)		Total	3	1033.02
Jammu & Kashmir	Anantnag	Limestone	22	216.15
		Total	22	216.15
	Kishtwar	Sapphire	1	673.40
		Total	1	673.40
	Leh	Borax	1	159.00
		Total	1	159.00
	Poonch	Limestone	1	15.89
		Total	1	15.89
			_	2.42.=2
	Pulwama	Limestone	7	240.53
		Total	7	240.53
	Reasi	Magnasita	1	485.30
	Reasi	Magnesite Total	1	485.30 485.30
		IOIAI	'	405.30
	Srinagar	Limestone	2	222.21
		Total	2	222.21
		70101	- [
Jharkhand	Bokaro	Limestone	1	17.57
		Total	1	17.57
	Garwah	Limestone	3	1178.92
		Total	3	1178.92
				oontd

Table-4 (contd.)

(contd.) Hazaribagh Garnet Limestone 27 23 23	32.00 32.00 8.20 34.83 93.03 75.87 7.22
Hazaribagh Garnet 1 Limestone 2	8.20 34.83 93.03 75.87 7.22
Limestone 2	34.83 93.03 75.87 7.22
Limestone 2	34.83 93.03 75.87 7.22
	93.03 75.87 7.22
Total 3	75.87 7.22
	7.22
	7.22
Latehar Bauxite 2 4	
Graphite 1	
Iron ore 2	48.18
Total 5 5	31.27
Lohardaga Bauxite 16 75	33.33
Total 16 75	33.33
PalamauGraphite188	33.76
Iron ore 6 1:	31.05
Limestone 1 10-	13.84
Total 25 20	08.65
Ramgarh Limestone 5 1	09.68
Total 5 1	09.68
Ranchi Limestone 4 12	39.54
Total 4 12	39.54
Saraikela-Kharaswan Kyanite 2 8	31.51
Total 2 8	31.51

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Jharkhand	Singhbhum (East)	Copper ore	3	2313.37
(concld.)		Gold	1	19.50
		Kyanite	5	123.49
		Total	9	2456.36
	Singhbhum (West)	Iron ore	40	11305.03
	Singibilain (West)	Limestone	23	888.00
		Manganese ore	1	21.19
		Total	64	12214.22
		Total		12214.22
Karnataka	Bagalkot	Iron ore	3	74.84
		Limestone	87	5542.98
		Total	90	5617.82
	Bengaluru	Ruby	1	4.07
		Total	1	4.07
	Balmann	Dowite	_	270.00
	Belgaum	Bauxite	5	370.02
		Iron ore	1	20.23 1559.11
		Limestone	19	
		Manganese ore	3	40.47
		Moulding sand Total	29	31.57 2021.40
		I Otal	29	2U21.4U
	Bellary	Iron ore	83	8283.56
		Manganese ore	7	405.16
		Moulding sand	1	4.04
		Total	91	8692.76

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Karnataka	Chikmagalur	Iron ore	1	4.89
(contd.)		Total	1	4.89
	Chitradurga	Copper ore	2	416.83
		Iron ore	13	595.90
		Limestone	13	1538.15
		Manganese ore	21	940.84
		Total	49	3491.72
	Dawangere	Iron ore	1	38.44
		Manganese ore	4	79.51
		Moulding sand	5	165.51
		Total	10	283.46
	Gadag	Iron ore	4	190.37
		Total	4	190.37
	Gulbarga	Gold	1	55.75
		Limestone	14	5888.24
		Moulding sand	1	91.00
		Total	16	6034.99
	Hassan	Chromite	6	1306.39
		Kyanite	1	2.93
		Total	7	1309.32
	Haveri	Moulding sand	5	199.49
		Total	5	199.49

Table-4 (contd.)

State	Districts	Minerals	No. of	Area
Karnataka	Kolar	Gold	Leases 1	(In ha) 5213.21
(contd.)	11010.	Total	1	5213.21
(comal)		1 0 000		0_101
	Mandya	Ruby	1	1.64
		Total	1	1.64
	Mysore	Graphite	4	235.03
		Kyanite	5	42.61
		Limestone	1	20.23
		Magnesite	9	163.83
		Ruby	1	3.49
		Vermiculite	2	8.31
		Total	22	473.50
	North Kannada	Iron ore	5	522.29
	(Uttar Kannada)	Limeshell	13	1143.06
		Manganese ore	9	811.48
		Total	27	2476.83
	Raichur	Gold	6	1521.14
		Total	6	1521.14
	Shimoga	Kyanite	1	2.43
		Limestone	1	40.12
		Manganese ore	2	543.60
		Total	4	586.15

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Karnataka	Tumkur	Gold	1	38.04
(concld.)		Iron ore	9	478.40
		Limestone	3	350.01
		Manganese ore	8	595.69
		Total	21	1462.14
	Udupi	Limeshell	3	307.97
		Total	3	307.97
	Yadgir	Limestone	1	2.91
		Moulding Sand	4	124.81
		Total	5	127.72
Kerala	Alappuzha	Limeshell	3	759.90
	(Alleppey)	Total	3	759.90
	Ernakulam	Graphite	1	1.25
		Total	1	1.25
	Kollam	Bauxite	2	0.72
		Sillimanite	5	558.37
		Total	7	559.09
	Kottayam	Limeshell	2	594.50
		Total	2	594.50
	Kozhikode	Iron ore	1	86.06
		Total	1	86.06

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Kerala	Palakkad	Limestone	1	245.69
(concld.)		Total	1	245.69
Madhya Pradesh	Alirajpur	Limestone	1	2.15
		Vermiculite	1	2.65
		Total	2	4.80
	Anuppur	Bauxite	3	170.82
		Total	3	170.82
	Balaghat	Bauxite	1	40.47
		Copper ore	1	480.10
		Iron ore	1	4.95
		Limestone	5	28.18
		Manganese ore	67	1773.75
		Total	75	2327.45
	Betul	Lead & Zinc ore	2	12.76
		White clay	1	39.84
		Total	3	52.60
	Chhatarpur	Iron ore	1	4.60
		Phosphorite	1	48.76
		Rock phosphate	1	13.20
		Total	3	66.56
	Chhindwara	Manganese ore	13	155.39
		Total	13	155.39

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Madhya Pradesh	Damoh	Limestone	9	2649.90
(contd.)		Total	9	2649.90
	Dhar	Limestone	31	2214.44
		Total	31	2214.44
	Gwalior	Iron ore	3	19.90
		Total	3	19.90
	Jabalpur	Bauxite	5	34.15
		Iron ore	23	273.47
		Limestone	1	12.27
		Manganese ore	7	44.76
		White clay	1	18.66
		Total	37	383.31
	Jhabua	Limestone	1	9.00
		Manganese ore	3	39.67
		Phosphorite	3	49.11
		Total	7	97.78
		5		400.00
	Katni	Bauxite	31	423.93
		Iron ore	1	2.06
		Limestone	181	5270.97
		Manganese ore	1	48.56
		White clay Total	2	3.64
		IOtal	216	5749.16
	Morena	Limestone	1	2.00
	IVIOIEIIA	Total		2.00 2.00
		I Otal	'	2.00

Table-4 (contd.)

State	Districts	Minerals	No. of	Area
Madhya Pradesh	Narasinhapur	Limestone	Leases 4	(In ha) 17.19
(concld.)		Total	4	17.19
	Nimach	Limestone	8	1904.05
		Total	8	1904.05
	Panna	Diamond	2	275.96
		Total	2	275.96
	Rewa	Bauxite	14	154.99
		Limestone	32	2029.29
		Total	46	2184.28
	_			
	Sagar	Iron ore	2	16.67
		Limestone	2	55.04
		Phosphorite	1	52.80
		Total	5	124.51
	Satna	Bauxite	42	434.13
	Satna	Limestone	167	11866.05
		White clay	3	353.08
		Total	212	12653.26
		i otai	212	12000.20
	Shyopur	Limestone	8	513.48
	on, op an	Total	8	513.48
	Sidhi	Bauxite	3	10.48
		Limestone	6	1035.95
		Total	9	1046.43

Table-4 (contd.)

State	Districts	Minerals	No. of	Area
Maharashtra	Bhandara	Chromite	Leases 1	(In ha) 16.22
		Kyanite	12	206.17
		Manganese ore	7	353.81
		Total	20	576.20
	Chandrapur	Fluorite	1	32.70
		Iron ore	3	29.91
		Limestone	16	3342.47
		White clay	1	18.00
		Total	21	3423.08
	Gadchiroli	Iron ore	3	354.66
		Total	3	354.66
	Gondia	Iron ore	4	26.97
		Total	4	26.97
	Kolhapur	Bauxite	15	2807.09
		Iron ore	1	144.00
		Total	16	2951.09
	Nagpur	Manganese ore	33	650.13
		White clay	2	4.34
		Total	35	654.47
	Daime !	Downite		470.00
	Raigad	Bauxite	7	473.23
		Total	7	473.23

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Maharashtra	Ratnagiri	Bauxite	7	777.56
(concld.)		Moulding sand	2	155.07
		Total	9	932.63
	Satara	Bauxite	1	125.06
		Total	1	125.06
	Sindhudurg	Bauxite	1	45.00
	Omandary	Iron ore	15	712.65
		Total	16	757.65
		Total		737.03
	Yeotmal	Limestone	35	2126.90
		Total	35	2126.90
Manipur	Ukhrul	Chromite	1	132.78
		Total	1	132.78
Maghalaya	Jaintia Hills	Limestone	11	E4 07
Meghalaya	Jaintia Hills		11	51.87
		Total	''	51.87
	Khasi Hills	Limestone	4	484.78
	East	Total	4	484.78
	Khasi Hills	Limestone	1	60.00
	West	Sillimanite	1	4.64
		Total	2	64.64
Odisha	Bargarh	Graphite	10	325.81
		Limestone	2	806.53
		Total	12	1132.34

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Odisha	Bolangir	Graphite	41	994.75
(contd.)		Manganese ore	1	7.27
		Total	42	1002.02
	Dhenkanal	Chromite	3	960.80
	Difelikalial	Total	3	960.80 960.80
		. 0.0.		000.00
	Ganjam	Sillimanite	1	2464.05
		Total	1	2464.05
	lainur	Chromite	17	4344.72
	Jajpur	Iron ore	17	1812.99
		Total	18	6157.71
		Total	10	0107.71
	Kalahandi	Graphite	6	46.60
		Iolite	10	80.06
		Ruby	3	120.80
		Total	19	247.46
	Kandhamal	Graphite	1	12.75
		Total	1	12.75
	Keonjhar	Asbestos	1	49.22
		Chromite	6	2194.28
		Iron ore	88	25129.63
		Manganese ore	15	2432.65
		Total	110	29805.78
	Koraput	Bauxite	3	4915.38
		Limestone	2	1586.22
		Total	5	6501.60

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Odisha	Mayurbhanj	Iron ore	11	1767.65
(concld.)		Total	11	1767.65
	Nawapara	Garnet (Gem)	1	33.95
		Graphite	4	119.32
		Limestone	3	332.96
		Total	8	486.23
	Raygada	Bauxite	1	1388.74
		Graphite	11	561.26
		Manganese ore	4	568.42
		Total	16	2518.42
	Sambalpur	Aquamarine	1	24.29
		Total	1	24.29
	Sonepur	lolite	4	115.64
		Total	4	115.64
	Sundargarh	Bauxite	2	223.58
		Iron ore	44	7518.36
		Limestone	31	4768.50
		Manganese ore	22	3500.80
		Total	99	16011.24
Rajasthan	Ajmer	Emerald	1	46.32
-		Garnet	8	37.53
		Lead & Zinc Ore	1	480.45
		Limestone	2	1304.83
		Magnesite	2	9.75

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Rajasthan	Ajmer	Vermiculite	3	13.32
(contd.)	(concld.)	Wollastonite	10	97.55
		Total	27	1989.75
	Alwar	Iron ore	1	69.37
		Total	1	69.37
	Banswara	Limestone	1	65.82
		Manganese ore	1	18.89
		Total	2	84.71
	Barmer	Siliceous earth	12	120.58
		Total	12	120.58
	Bhilwara	Garnet	3	13.38
		Garnet (Gem)	1	5.00
		Iron ore	2	1989.88
		Kyanite	3	154.02
		Lead & Zinc ore	1	1200.00
		Total	10	3362.28
	Bundi	Limestone	1	3980.00
		Total	1	3980.00
	Chittorgarh	Limestone	10	5574.10
		Total	10	5574.10

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Rajasthan	Dungarpur	Fluorite	2	44.09
(contd.)		Total	2	44.09
	Jaipur	Epidote	1	215.83
		Iron ore	6	310.52
		Limestone	1	548.78
		Total	8	1075.13
	Jaisalmer	Limestone	2	1998.33
		Siliceous earth	13	106.17
		Total	15	2104.50
	Jalore	Fluorite	6	582.85
		Total	6	582.85
	Jhunjhunu	Copper Ore	3	710.38
		Iron ore	7	71.78
		Total	10	782.16
	Jodhpur	Limestone	1	2070.00
		Total	1	2070.00
	Kota	Limestone	1	881.44
		Total	1	881.44
	Nagaur	Limestone	7	2903.81
		Total	7	2903.81

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Rajasthan	Pali	Limestone	4	2426.62
(concld.)		Magnesite	3	110.00
		Vermiculite	1	32.37
		Wollastonite	2	28.86
		Total	10	2597.85
	Rajsamand	Lead & Zinc ore	3	1725.82
		Total	3	1725.82
	Sikar	Iron ore	3	54.02
		Limestone	3	957.93
		Total	6	1011.95
	Sirohi	Copper ore	1	52.00
		Lead & Zinc ore	1	63.00
		Limestone	5	1124.03
		Wollastonite	2	77.86
		Total	9	1316.89
	Tonk	Garnet	6	108.03
		Total	6	108.03
	Udaipur	Bauxite	1	123.20
		Lead & Zinc ore	4	14480.00
		Limestone	2	918.32
		Phosphorite	5	1994.46
		Red oxide	2	54.00
		Wollastonite	2	214.32
		Total	16	17784.30

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Sikkim	Sikkim East	Copper ore	3	96.32
		Total	3	96.32
Tamil Nadu	Ariyalur	Limestone	61	2276.23
		Total	61	2276.23
	Coimbatore	Limestone	4	217.95
		Total	4	217.95
	Cuddalore	Limeshell	1	4.61
		Total	1	4.61
	Dindigul	Limestone	42	631.56
		Total	42	631.56
	Kanyakumari	Garnet	9	168.33
	,,	Total	9	168.33
	Karur	Limestone	42	534.06
		Magnesite	2	4.41
		Total	44	538.47
	Krishnagiri	Limestone	2	2.46
		Total	2	2.46
	Madurai	Garnet	2	6.62
	.naaarar	Graphite	2	5.69
		Limestone	13	60.78
		Total	17	73.09

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Tamil Nadu	Namakkal	Bauxite	3	226.15
(contd.)		Limestone	38	124.63
		Magnesite	3	4.89
		Total	44	355.67
	Perambalur	Limestone	31	94.79
		Total	31	94.79
	Salem	Apatite	1	4.05
		Bauxite	1	190.84
		Limestone	51	429.06
		Magnesite	12	931.29
		Total	65	1555.24
	Sivaganga	Graphite	5	271.84
		Total	5	271.84
	Theni (Madurai)	Limestone	3	6.77
		Total	3	6.77
	Thoothukudi	Garnet	6	70.56
	(Tuticorin)	Limestone	16	361.38
		Total	22	431.94
	Tiruchirappalli	Garnet	5	29.99
	1.1.	Limestone	28	187.46
		Total	33	217.45

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Tamil Nadu	Tirunelveli	Garnet	53	328.95
(concld.)		Limestone	72	669.72
	Total		125	998.67
	Tiruppur	Magnesite	2	7.26
		Total	2	7.26
	Vellore	Vermiculite	1	23.71
		Total	1	23.71
	Virudhunagar	Limestone	32	1594.17
		Total	32	1594.17
Telangana	Adilabad	Limestone	12	2393.41
		Manganese ore	16	759.92
		White clay	20	161.41
		Total	48	3314.74
	Hyderabad	Amethyst	2	2.89
		Total	2	2.89
	Karimnagar	Iron ore	2	4.00
		Limestone	2	765.82
		Total	4	769.82

Table-4 (contd.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Telangana	Khammam	Garnet	5	21.84
(concld.)		Iron ore	6	53.26
		Vermiculite	2	19.66
		Total	13	94.76
	Mahbubnagar	Limestone	1	173.64
		Total	1	173.64
	Nalgonda	Amethyst	1	4.94
		Limestone	36	5384.46
		Vermiculite	1	4.00
		Total	38	5393.40
	Nizamabad	Iron ore	1	6.68
		Total	1	6.68
	Rangareddi	Limestone	5	1217.14
		Total	5	1217.14
	Warangal	Iron ore	1	17.05
		Total	1	17.05
Uttar Pradesh	Sonbhadra	Limestone	5	3397.80
		Total	5	3397.80
Uttarakhand	Bageshwar	Magnesite	1	165.08
		Total	1	165.08
	Chamoli	Magnesite	1	4.13
		Total	1	4.13

Table-4 (concld.)

State	Districts	Minerals	No. of Leases	Area (In ha)
Uttarakhand	Pithoragarh	Magnesite	2	8.42
(concld.)		Total	2	8.42
	Tehri Garhwal	Limestone Total	3 3	14.16 14.16
West Bengal	Burdwan	Moulding sand	2	2.27
		Total	2	2.27
	Purulia	Moulding sand	1	5.14
		Phosphorite	1	13.47
		Total	2	18.61

3.2 DISTRICT WISE ANALYSIS

(i) High Mineral Potential Districts

District wise analysis indicates that the total number of mineral-bearing districts is around 211 and that they are spread across 24 states in the country. Out of these, 8 districts in 8 states are considered as high mineral potential districts wherein more than 100 mining leases each have been granted. A total of 1,276 mining leases have been granted in these districts covering an area of about 79,554 hectares. These constitute about 31% of total number of mining leases in the country and cover around 23% of the total area.

(ii) Medium Mineral Potential Districts

Districts wherein mining leases between 51 and 100 are granted are considered as Medium Potential districts. There are 824 such mining leases granted in 10 districts in 8 states covering an area of about 61,184 hectares. These constitute 20% of the total number of mining leases in the country and cover over 17% of the total area.

(iii) Low Mineral Potential Districts

Districts wherein mining leases granted are between 1 and 50 are considered as Low Mineral Potential districts. There are 2,028 mining leases granted in 193 such districts in 23 states covering an area of about 2,14,171 hectares in the country. These account for 49% of the total number of mining leases in the country covering 60% of the total area.

Information on the number of mining leases granted in high mineral potential, medium potential, low potential states and districts is furnished in Table-5 to 7.

Table - 5: High Mineral Potential Districts

S. No.	State	District	No. of Leases	No. of Minerals	Area (In ha)
1	Andhra Pradesh	Kurnool	163	5	9468.13
2	Goa	South Goa	184	3	14198.54
3	Gujarat	Devbhoomi Dwarka	142	3	4272.42
4	Gujarat	Porbandar	124	2	2407.91
5	Madhya Pradesh	Katni	216	5	5749.16
6	Madhya Pradesh	Satna	212	3	12653.26
7	Odisha	Keonjhar	110	4	29805.78
8	Tamil Nadu	Tirunelveli	125	2	998.67
		Total	1276	27	79553.87

Table - 6: Medium Mineral Potential Districts

S.	State	District	No. of	No. of	Area
No.			Leases	Minerals	(In ha)
1	Andhra Pradesh	Nellore	99	4	2045.45
2	Goa	North Goa	97	2	7081.91
3	Gujarat	Gir Somnath	83	1	3361.87
4	Jharkhand	Singhbhum (West)	64	3	12214.22
5	Karnataka	Bagalkot	90	2	5617.82
6	Karnataka	Bellary	91	3	8692.76
7	Madhya Pradesh	Balaghat	75	5	2327.45
8	Odisha	Sundargarh	99	4	16011.24
9	Tamil Nadu	Ariyalur	61	1	2276.23
10	Tamil Nadu	Salem	65	4	1555.24
		Total	824	29	61184.19

Table - 7: Low Mineral Potential Districts

S. No.	State	No. of Districts	No. of Leases	Area (In ha)
1	Andhra Pradesh	9	200	14924.67
2	Assam	2	7	889.50
3	Bihar	1	12	387.47
4	Chhattisgarh	19	177	23546.78
5	Gujarat	15	118	12391.82
6	Haryana	1	4	46.85
7	Himachal Pradesh	4	41	2465.80
8	Jammu & Kashmir	7	35	2012.48
9	Jharkhand	11	100	11631.86
10	Karnataka	18	212	25710.01
11	Kerala	6	15	2246.49
12	Madhya Pradesh	18	194	11883.40
13	Maharashtra	11	167	12401.94
14	Manipur	1	1	132.78
15	Meghalaya	3	17	601.29
16	Odisha	13	141	23390.96
17	Rajasthan	21	163	50169.61
18	Sikkim	1	3	96.32
19	Tamil Nadu	16	292	4640.07
20	Telangana	9	113	10990.12
21	Uttar Pradesh	1	5	3397.80
22	Uttarakhand	4	7	191.79
23	West Bengal	2	4	20.88
	Total	193	2028	214170.69

3.3 MINERAL WISE ANALYSIS

There are 40 naturally occurring minerals for which mining leases are granted in the country. These minerals are broadly classified into Scheduled and Non-Scheduled minerals.

(i) Scheduled Minerals

The Scheduled Minerals include ferrous, non-ferrous & noble metals, industrial mineral and precious mineral. The ferrous group includes chromite, iron ore and manganese ore; non-ferrous group consists of bauxite, copper ore and lead & zinc ores; noble metal group includes gold; and industrial mineral group includes asbestos and precious stone includes diamond, ruby & sapphire. At present, there are no commercial mining leases granted for silver and platinum group of metals in the country.

There are 11 minerals under Scheduled Minerals for which mining leases are granted as on 31.3.2016. The number of mining leases granted are 1,488 i.e. 36% of the total mining leases accounting for an area of about 1,76,230 hectares which is 50% of the total mining area (Excluding coal, lignite, petroleum, natural gas, atomic mineral and minor minerals) in the country. Out of the eleven scheduled minerals, the total number of mining leases granted for iron ore is placed at 713 followed by bauxite (372), manganese ore (321), chromite (34), copper ore (14), lead & zinc ore (13) and gold (11). These seven minerals account for 1,478 mining leases, i.e., 99.3% of the mining leases under this category accounting for an area of about 1,75,102 hectares which is 99.4% of the lease area accounted under Scheduled Minerals. The distribution of mining leases for Scheduled minerals are given in Table-8.

(ii) Non-Scheduled Minerals

There are 29 Non-Scheduled or Industrial minerals, for which leases are granted in the country. In all, there are 2,640 (64% of the total mining leases) mining leases granted for these minerals that account for an area of about 1,78,678 hectares which is 50% of the total lease area. Distribution of mining leases for Non-Scheduled minerals are given in Table-9.

Table – 8 : Distribution of Mining Leases for Scheduled Minerals As on 31.03.2016

S. No.	Minerals	No. of Leases	Area (In ha)
1	Asbestos	1	49.22
2	Bauxite	372	29106.76
3	Chromite	34	8955.19
4	Copper ore	14	4253.98
5	Diamond *	02	275.96
6	Gold	11	7445.46
7	Iron ore	713	90301.95
8	Lead & Zinc ore	13	17977.92
9	Manganese ore	321	17060.54
10	Ruby *	6	130.00
11	Sapphire *	1	673.40
	Total	1488	176230.38

^{*} Precious stone

Table – 9 : Distribution of Mining Leases for Non-Scheduled Minerals As on 31.03.2016

S. No.	Minerals	No. of	Area
1	Amethyst	Leases 3	(In ha) 7.83
2	Apatite	2	20.17
3	Aquamarine	1	24.29
4	Borax	1	159.00
5	Emerald	1	46.32
6	Epidote	1	215.83
7	Fluorite	11	722.84
8	Garnet	105	1617.59
9	Garnet (Gem)	2	38.95
10	Graphite	105	3482.39
11	Iolite	14	195.70
12	Kyanite	30	1446.75
13	Limeshell	25	2856.78
14	Limestone	2015	156016.02
15	Magnesite	38	1894.36
16	Marl	1	4.90
17	Moulding sand	35	841.85
18	Perlite	1	144.88
19	Phosphorite	11	2158.60
20	Red oxide	4	80.34
21	Rock phosphate	1	13.20
22	Semi-precious stones	13	134.43
23	Siliceous earth	25	226.75
24	Sillimanite	7	3027.06
25	Tin	14	300.17
26	Vermiculite	104	1861.04
27	White clay	39	644.40
28	White shale	15	77.34
29	Wollastonite	16	418.59
	Total	2640	178678.37

3.4 FREQUENCY DISTRIBUTION OF MINING LEASES

The number of mining leases so far executed for various minerals are classified into seven categories:

Category – I :	Includes minerals for which number of mining leases executed are more than 1000;
Category – II:	Includes minerals for which number of mining leases executed are between 501 and 1,000;
Category – III :	Includes minerals for which number of mining leases executed are between 301 and 500;
Category – IV :	Includes minerals for which number of mining leases executed are between 201 and 300;
Category – V:	Includes minerals for which number of mining leases executed are between 101 and 200;
Category – VI:	Includes minerals for which number of mining leases executed are between 51 and 100;
Category – VII :	Includes minerals for which number of mining leases executed are between 1 and 50.

Number of minerals, their mining leases and area of leases covered category wise are summarised in Table - 10. The frequency distribution of mining leases is given in Table - 11.

Table – 10 : Category wise Number of Minerals, their Mining Leases and Area of Leases

Category	No. of	No. of Mini	ng Leases	Lease Area			
Catogory	Minerals	No. of Leases	Percentage	(In ha)	Percentage		
I	1	2015	48.81	156016.02	43.96		
II	1	713	17.27	90301.95	25.44		
III	2	693	16.79	46167.30	13.01		
IV	-	-	-	-	-		
V	3	314	7.61	6961.02	1.96		
VI	-	-	-	-	-		
VII	33	393	9.52	55462.46	15.63		
Total	40	4128	100.00	354908.75	100.00		

Table-11: Frequency Distribution of Mining Leases

Category	Frequency of Leases	Minerals	No. of Leases	Area (In ha)
I	>1000	Limestone	2015	156016.02
		Total	2015	156016.02
II	Between 501 and 1000	Iron ore	713	90301.95
		Total	713	90301.95
III	Between 301 and 500	Bauxite	372	29106.76
		Manganese ore	321	17060.54
		Total	693	46167.30
IV	Between 201 and 300	Nil	-	-
V	Between 101 and 200	Garnet	105	1617.59
		Graphite	105	3482.39
		Vermiculite	104	1861.04
		Total	314	6961.02
VI	Between 51 and 100	Nil	-	-
VII	Between 1 and 50	Amethyst	3	7.83
		Apatite	2	20.17
		Aquamarine	1	24.29
		Asbestos	1	49.22
		Borax	1	159.00
		Chromite	34	8955.19
		Copper Ore	14	4253.98
		Diamond	2	275.96
		Emerald	1	46.32
		Epidote	1	215.83
		Fluorite	11	722.84
		Garnet (Gem)	2	38.95
		Gold	11	7445.46
		Iolite	14	195.70
		Kyanite	30	1446.75
		Lead & Zinc ore	13	17977.92

concld...

Table-11 (concld.)

Category	Frequency of Leases	Minerals	No. of Leases	Area (In ha)
VII	Between 1 and 50	Limeshell	25	2856.78
(concld.)	(concld.)	Magnesite	38	1894.36
		Marl	1	4.90
		Moulding sand	35	841.85
		Perlite	1	144.88
		Phosphorite	11	2158.60
		Red oxide	4	80.34
		Rock phosphate	1	13.20
		Ruby	6	130.00
		Sapphire	1	673.4
		Semi-precious stones	13	134.43
		Siliceous earth	25	226.75
		Sillimanite	7	3027.06
		Tin	14	300.17
		White clay	39	644.40
		White shale	15	77.34
		Wollastonite	16	418.59
		Total	393	55462.46

3.5 SECTOR WISE DISTRIBUTION OF MINING LEASES

Out of the total 4,128 mining leases in the country, 295 (7%) leases have been executed in the Public Sector, extending over an area of about 97,010 hectares (27%). The remaining 3,833 (93%) mining leases with an area of about 2,57,898 hectares (73%) have been executed in the Private Sector. Most of the Scheduled Minerals, namely, copper ore, lead & zinc ores, gold, iron ore, manganese ore and chromite and Non-Scheduled Minerals are being exploited by both Public and Private Sectors.

(a) Central Government Public Sector Undertakings :

There are 112 mining leases under Central Government Public Sector Undertakings executed in 14 states for different minerals, covering an area of about 52,810 hectares. The States rich in minerals where maximum number of mining leases executed for Central Govt. Public Sector Undertakings are Madhya Pradesh 20 (18%), followed by Jharkhand, Maharashtra and Odisha 18 mining leases each (16% each) and Chhattisgarh 12 (11%). These five States together account for about 77% of total leases executed and the remaining 9 States account for the rest of the 23 percent.

The prominent States where maximum mining lease areas are located are Odisha (33%), Jharkhand (20%), Chhattisgarh (16%), Karnataka (12%), Madhya Pradesh (10%) and Telangana (3%). These six States account for 94% of the total lease area executed and the remaining States account for the rest of the 6 percent.

(b) State Government Public Sector Undertakings :

There are 183 number of mining leases executed in 16 States for different minerals, covering an area of 44,200 hectares. The States rich in minerals where there are maximum number of mining leases executed are Odisha 43 (24%), Karnataka 38 (21%), Chhattisgarh 21 (11%), Gujarat 17 (9%), Tamil Nadu 15 (8%), Rajasthan 11 (6%), Maharashtra 9 (5%), Madhya Pradesh 8 and Jharkhand 7 (4% each). These nine States together account for about 92% of the total leases executed and the remaining 7 States account for the rest of the 8 percent.

The prominent States where maximum mining lease areas located are Odisha (47%), Karnataka (20%), Rajasthan (10%), Gujarat (8%), Jharkhand & Tamil Nadu (4% each) and Jammu and Kashmir (3%). These seven States together account for around 96% of the total lease area executed while the remaining 9 States account for the rest of the 4 percent.

Sector wise distribution of mining leases in public/private sector and Mineral wise distribution of Mining Leases are given in Tables-12 to 14 respectively.

Table – 12 : Sector wise Distribution of Mining Leases (As on 31.03.2016) (Public Sector and Private Sector)

		1	ector and Potal		Sector	Priva	te Sector
S. No.	State	No. of Leases	Area (In ha)	No. of Leases	Area (In ha)	No. of Leases	Area (In ha)
1	Andhra Pradesh	462	26438.25	5	432.17	457	26006.08
2	Assam	7	889.50	3	371.00	4	518.50
3	Bihar	12	387.47	-	-	12	387.47
4	Chhattisgarh	177	23546.78	33	9106.54	144	14440.24
5	Goa	281	21280.45	-	-	281	21280.45
6	Gujarat	467	22434.02	17	3421.79	450	19012.23
7	Haryana	4	46.85	-	-	4	46.85
8	Himachal Pradesh	41	2465.80	2	404.63	39	2061.17
9	Jammu & Kashmir	35	2012.48	3	1246.80	32	765.68
10	Jharkhand	164	23846.08	25	12232.49	139	11613.59
11	Karnataka	393	40020.59	43	15342.70	350	24677.89
12	Kerala	15	2246.49	5	558.37	10	1688.12
13	Madhya Pradesh	697	32613.27	28	5503.86	669	27109.41
14	Maharashtra	167	12401.94	27	1012.82	140	11389.12
15	Manipur	1	132.78	-	-	1	132.78
16	Meghalaya	17	601.29	-	-	17	601.29
17	Odisha	350	69207.98	61	38068.69	289	31139.29
18	Rajasthan	163	50169.61	14	5197.14	149	44972.47
19	Sikkim	3	96.32	3	96.32	-	-
20	Tamil Nadu	543	9470.21	21	2173.64	522	7296.57
21	Telangana	113	10990.12	3	1663.17	110	9326.95
22	Uttar Pradesh	5	3397.80	-	-	5	3397.80
23	Uttarakhand	7	191.79	1	165.08	6	26.71
24	West Bengal	4	20.88	1	13.47	3	7.41
	Total	4128	354908.75	295	97010.68	3833	257898.07

Table – 13 : Sector-wise Distribution of Mining Leases (As on 31.03.2016) (Under Central Government and State Governments)

		Cer	ntral	S	tate		
S.	State		nment		rnment		otal
No.		No. of	Area	No. of	Area	No. of	Area
	A 11 D 1 1	Leases	(In ha)	Leases	(In ha)	Leases	(In ha)
1	Andhra Pradesh	2	394.14	3	38.03	5	432.17
2	Assam	1	171.00	2	200.00	3	371.00
3	Chhattisgarh	12	8609.31	21	497.23	33	9106.54
4	Gujarat	-	-	17	3421.79	17	3421.79
5	Himachal Pradesh	2	404.63	-	-	2	404.63
6	Jammu & Kashmir	-	-	3	1246.80	3	1246.80
7	Jharkhand	18	10425.88	7	1806.61	25	12232.49
8	Karnataka	5	6657.26	38	8685.44	43	15342.70
9	Kerala	4	354.57	1	203.80	5	558.37
10	Madhya Pradesh	20	5153.75	8	350.11	28	5503.86
11	Maharashtra	18	708.32	9	304.50	27	1012.82
12	Odisha	18	17225.27	43	20843.42	61	38068.69
13	Rajasthan	3	710.38	11	4486.76	14	5197.14
14	Sikkim	-	-	3	96.32	3	96.32
15	Tamil Nadu	6	377.00	15	1796.64	21	2173.64
16	Telangana	2	1453.17	1	210.00	3	1663.17
17	Uttarakhand	1	165.08	-	-	1	165.08
18	West Bengal	-	-	1	13.47	1	13.47
	Total	112	52809.76	183	44200.92	295	97010.68

Table-14: Summary of Lease Distribution in Public Sector (As on 31.3.2016)
(By States/Districts/Minerals)

(Area in ha)

			C	Central		State		Total
State	Districts	Minerals	Gov	ernment/	Gov	ernment/		
			No.	Area	No.	Area	No.	Area
Andhra Pradesh	Krishna	Limestone	1	129.5	-	-	1	129.5
	Nellore	Moulding sand	-	-	1	13.19	1	13.19
	Visakhapatnam	Apatite	-	-	1	16.12	1	16.12
		Limestone	-	-	1	8.72	1	8.72
	Vizianagaram	Manganese ore	1	264.64	-	-	1	264.64
		Total	2	394.14	3	38.03	5	432.17
Assam	Karbi Anglong	Limestone	1	171.00	-	-	1	171.00
	North Cachar Hills	Limestone	-	-	2	200.00	2	200.00
		Total	1	171.00	2	200.00	3	371.00
Chhattisgarh	Balod	Iron ore	4	2562.69	-	-	4	2562.69
	Dantewada	Iron ore	5	2553.42	-	-	5	2553.42
	Durg	Limestone	1	526.34	-	-	1	526.34
	Jashpur	Bauxite	-	-	2	40.61	2	40.61
	Kanker	Iron ore	2	2966.86	-	-	2	2966.86
	Kabirdham	Bauxite	-	-	1	5.31	1	5.31
	Sukma	Tin	-	-	6	183.96	6	183.96
	Surguja	Bauxite	-	-	12	267.35	12	267.35
		Total	12	8609.31	21	497.23	33	9106.54
Gujarat	Banaskantha	Copper ore	-	-	1	184.98	1	184.98
	Chhota Udaipur	Fluorite	-	-	2	63.20	2	63.20
	Devbhoomo Dwarka	Bauxite	-	-	2	189.78	2	189.78
	Kachchh	Bauxite	-	-	10	1939.39	10	1939.39
	Surat	Limestone	-	-	2	1044.44	2	1044.44
		Total	-	-	17	3421.79	17	3421.79

Contd...

Table-14 (contd.)

State	Districts	Minerals		Central vernment		State vernment		Total
			No.	Area	No.	Area	No.	Area
Himachal Pradesh	Sirmur	Limestone	1	172.03	-	-	1	172.03
	Solan	Limestone	1	232.60	-	-	1	232.60
		Total	2	404.63	-	-	2	404.63
Jammu & Kashmir	Kishtwar	Sapphire	-	-	1	673.4	1	673.4
	Pulwama	Limestone	-	-	1	88.1	1	88.1
	Reasi	Magnesite	-	-	1	485.3	1	485.3
		Total	•	-	3	1246.80	3	1246.80
Jharkhand	Garwah	Limestone	3	1178.92	-	-	3	1178.92
	Palamau	Graphite	-	-	2	434.76	2	434.76
		Limestone	-	-	1	1043.84	1	1043.84
	Ranchi	Limestone	-	-	2	239.54	2	239.54
	Singhbhum (East)	Copper ore	3	2313.37	-	-	3	2313.37
		Kyanite	-	-	2	88.47	2	88.47
	Singhbhum (West)	Iron ore	12	6933.59	-	-	12	6933.59
	Total		18	10425.88	7	1806.61	25	12232.49
Karnataka	Bagalkot	Limestone	-	-	8	3241.81	8	3241.81
	Belgaum	Limestone	-	-	2	755.48	2	755.48
	Bellary	Iron ore	2	1255.50	7	606.69	9	1862.19
	Chitradurga	Copper ore	-	-	2	416.83	2	416.83
	Gulbarga	Gold	-	-	1	55.75	1	55.75
		Limestone	2	188.55	-	-	2	188.55
	Hassan	Chromite	-	-	6	1306.39	6	1306.39
	Kolar	Gold	1	5213.21	-	-	1	5213.21
	Mysore	Magnesite	-	-	3	136.27	3	136.27
	Uttara Kannada	Manganese ore	-	-	1	80.94	1	80.94

Contd...

Table-14 (contd.)

			C	entral		State		Total
State	Districts	Minerals	Gov	ernment	Gov	vernment		
			No.	Area	No.	Area	No.	Area
Karnataka	Raichur	Gold	-	-	6	1521.14	6	1521.14
(concld.)	Shimoga	Manganese ore	-	-	1	526.10	1	526.10
	Tumkur	Gold	-	-	1	38.04	1	38.04
		Total	5	6657.26	38	8685.44	43	15342.70
Kerala	Kollam	Sillimanite	4	354.57	1	203.80	5	558.37
		Total	4	354.57	1	203.80	5	558.37
Madhya Pradesh	Anuppur	Bauxite	-	-	1	148.18	1	148.18
	Balaghat	Copper ore	1	480.10	-	-	1	480.10
		Manganese ore	11	1236.70	-	-	11	1236.70
	Chhatarpur	Phosphorite	-	-	1	48.76	1	48.76
	Jhabua	Phosphorite	-	-	3	49.11	3	49.11
	Katni	Limestone	2	1036.03	-	-	2	1036.03
	Nimach	Limestone	2	500.45	-	-	2	500.45
	Panna	Diamond	2	275.96	-	-	2	275.96
	Rewa	Bauxite	-	-	1	4.9	1	4.9
	Sagar	Phosphorite	-	-	1	52.8	1	52.8
	Satna	Bauxite	-	-	1	46.36	1	46.36
		Limestone	2	1624.51	-	-	2	1624.51
		Total	20	5153.75	8	350.11	28	5503.86
Maharashtra	Bhandara	Kyanite	-	-	5	142.73	5	142.73
		Manganese ore	5	325.44	-	-	5	325.44
	Chandrapur	Fluorite	-	-	1	32.70	1	32.70
	Gondia	Iron ore	-	-	1	9.32	1	9.32
	Nagpur	Manganese ore	13	382.88	-	-	13	382.88
	Yeotmal	Limestone	-	-	2	119.75	2	119.75
		Total	18	708.32	9	304.50	27	1012.82

Contd...

Table-14 (contd.)

Dhenkanal Chromite -				C	Central		State		Total
Odisha Bargarh Dhenkanal Chromite Limestone - - 1 304.32 3 1 304.32 3 2 1 304.32 3 2 1 304.32 3 2 1 304.32 3 2 1 304.32 3 2 1 304.32 3 2 1 304.32 3 3 3 120.80 3 3 3 12464.05 2 847.49 2 2 847.49 3 2 846.05 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.20 3 3 847.42 3 3 847.42 3 3 847.42 3 3 847.42 3 3 847.42 3 3 847.42 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	State	Districts	Minerals	Gov	/ernment	Gov	vernment		
Dhenkanal Chromite - - 2 847.49 2 847.49 3 2 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 - - 1 2464.05 -				No.	Area	No.	Area	No.	Area
Ganjam Sillimanite 1 2464.05 - 1 2464.05	Odisha	Bargarh	Limestone	-	-	1	304.32	1	304.32
Jajpur		Dhenkanal	Chromite	-	-	2	847.49	2	847.49
Iron ore		Ganjam	Sillimanite	1	2464.05	-	-	1	2464.05
Kalahandi Ruby - 3 120.80 3 120.80 Keonjhar Chromite - 3 1930.17 3 1930.17 3 1930.17 1930.17 11 6626.15 19 12968.28 Manganese ore 1 266.77 4 1448.44 5 1715.21 Koraput Bauxite 2 4647.27 - - 2 4647.27 2 4647.27 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 2 1586.22 3 332.96 3 332.96 3 332.96 3 332.96 3 332.96 3 332.96 3 332.96 3 332.96 4 2180.90 8 4774.54 4 4 4 4 4 4 4 4 4		Jajpur	Chromite	-	-	7	3117.36	7	3117.36
Keonjhar			Iron ore	-	-	1	1812.99	1	1812.99
Iron ore		Kalahandi	Ruby	-	-	3	120.80	3	120.80
Manganese ore		Keonjhar	Chromite	-	-	3	1930.17	3	1930.17
Koraput Bauxite 2 4647.27 - - 2 4647.27			Iron ore	8	6342.13	11	6626.15	19	12968.28
Limestone - - 2 1586.22 2 1586.22 1586.22 2 1586.22			Manganese ore	1	266.77	4	1448.44	5	1715.21
Nawapara Garnet (Gem) - - 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 1 33.95 3 332.96 3 332.96 3 332.96 1 501.67 1 501.67 1 501.67 1 501.67 1 501.67 1 501.67 1 501.67 1 17.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - 117.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - - 1 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44 - 117.44		Koraput	Bauxite	2	4647.27	-	-	2	4647.27
Limestone			Limestone	-	-	2	1586.22	2	1586.22
Raygada Manganese ore - - 1 501.67 1 501.67		Nawapara	Garnet (Gem)	-	-	1	33.95	1	33.95
Sundargarh Bauxite 1 117.44 - - 1 117.44			Limestone	-	-	3	332.96	3	332.96
Iron ore		Raygada	Manganese ore	-	-	1	501.67	1	501.67
Limestone 1 793.97 - - 1 793.97 Total 18 17225.27 43 20843.42 61 38068.69 Rajasthan Jaisalmer Limestone - - 2 1998.33 2 1998.33 Jalore Fluorite - - 4 574.10 4 574.10 4 574.10 Jhunjhunu Copper ore 3 710.38 - - 3 710.38 Sirohi Lead & Zinc ore - - 1 63.00 1 63.00 Udaipur Phosphorite - - 4 1851.33 4 1851.33		Sundargarh	Bauxite	1	117.44	-	-	1	117.44
Rajasthan Jaisalmer Limestone - - 2 1998.33 2 1998.33 Jalore Fluorite - - 4 574.10 4 574.10 Jhunjhunu Copper ore 3 710.38 - - 3 710.38 Sirohi Lead & Zinc ore - - 1 63.00 1 63.00 Udaipur Phosphorite - - 4 1851.33 4 1851.33			Iron ore	4	2593.64	4	2180.90	8	4774.54
Rajasthan Jaisalmer Limestone - - 2 1998.33 2 1998.33 Jalore Fluorite - - 4 574.10 4 574.10 Jhunjhunu Copper ore 3 710.38 - - 3 710.38 Sirohi Lead & Zinc ore - - 1 63.00 1 63.00 Udaipur Phosphorite - - 4 1851.33 4 1851.33			Limestone	1	793.97	-	-	1	793.97
Jalore Fluorite - - 4 574.10 4 574.10 Jhunjhunu Copper ore 3 710.38 - - 3 710.38 Sirohi Lead & Zinc ore - - 1 63.00 1 63.00 Udaipur Phosphorite - - 4 1851.33 4 1851.33			Total	18	17225.27	43	20843.42	61	38068.69
Jhunjhunu Copper ore 3 710.38 - - 3 710.38 Sirohi Lead & Zinc ore - - 1 63.00 1 63.00 Udaipur Phosphorite - - 4 1851.33 4 1851.33	Rajasthan	Jaisalmer	Limestone	-	-	2	1998.33	2	1998.33
Sirohi Lead & Zinc 1 63.00 1 63.00 Udaipur Phosphorite 4 1851.33 4 1851.33		Jalore	Fluorite	-	-	4	574.10	4	574.10
Ore Udaipur Phosphorite 4 1851.33 4 1851.33		Jhunjhunu	Copper ore	3	710.38	-	-	3	710.38
		Sirohi		-	-	1	63.00	1	63.00
Total 3 710.38 11 4486.76 14 5197.14		Udaipur	Phosphorite	-	-	4	1851.33	4	1851.33
			Total	3	710.38	11	4486.76	14	5197.14

Concld...

Table-14 (concld.)

		Central Government		State Government		Total	
Districts	Minerals						
		No.	Area	No.	Area	No.	Area
Sikkim East	Copper ore	-	-	3	96.32	3	96.32
	Total	-	-	3	96.32	3	96.32
Ariyalur	Limestone	-	_	6	624.53	6	624.53
Kanyakumari	Garnet	3	153.19	-	-	3	153.19
Salem	Magnesite	3	223.81	-	-	3	223.81
Sivaganga	Graphite	-	-	2	242.46	2	242.46
Tirunelveli	Garnet	-	-	1	4.36	1	4.36
	Limestone	-	-	2	31.67	2	31.67
Vellore	Vermiculite	-	-	1	23.71	1	23.71
Virudhunagar	Limestone	-	-	3	869.91	3	869.91
	Total	6	377.00	15	1796.64	21	2173.64
Adilabad	Limestone	1	839.38	1	210.00	2	1049.38
Rangareddy	Limestone	1	613.79	-	-	1	613.79
	Total	2	1453.17	1	210.00	3	1663.17
Bageshwar	Magnesite	1	165.08	-	-	1	165.08
	Total	1	165.08	-	-	1	165.08
Purulia	Phosphorite	-	-	1	13.47	1	13.47
	Total	-	-	1	13.47	1	13.47
	Sikkim East Ariyalur Kanyakumari Salem Sivaganga Tirunelveli Vellore Virudhunagar Adilabad Rangareddy Bageshwar	Sikkim East Copper ore Total Ariyalur Limestone Kanyakumari Garnet Salem Magnesite Sivaganga Graphite Tirunelveli Garnet Limestone Vellore Vermiculite Virudhunagar Limestone Total Adilabad Limestone Rangareddy Limestone Total Bageshwar Magnesite Total Purulia Phosphorite	Districts Minerals Government No. No. No. Sikkim East Copper ore - Total - - Ariyalur Limestone - Kanyakumari Garnet 3 Salem Magnesite 3 Sivaganga Graphite - Tirunelveli Garnet - Limestone - Vellore Vermiculite - Virudhunagar Limestone - Total 6 Adilabad Limestone 1 Rangareddy Limestone 1 Total 2 Bageshwar Magnesite 1 Total 1 Purulia Phosphorite -	Districts Minerals Government No. Area Sikkim East Copper ore - - Total - - - Ariyalur Limestone - - Kanyakumari Garnet 3 153.19 Salem Magnesite 3 223.81 Sivaganga Graphite - - Tirunelveli Garnet - - Vellore Vermiculite - - Virudhunagar Limestone - - Total 1 839.38 Rangareddy Limestone 1 613.79 Total 2 1453.17 Bageshwar Magnesite 1 165.08 Total 1 165.08 Purulia Phosphorite - -	Districts Minerals Government Government No. Area No. Sikkim East Copper ore - - 3 Total - - 3 3 Ariyalur Limestone - - 6 Kanyakumari Garnet 3 153.19 - Salem Magnesite 3 223.81 - Sivaganga Graphite - - 2 Tirunelveli Garnet - - 1 Limestone - - 1 1 Vellore Vermiculite - - - 3 Vellore Vermiculite - - 3 3 Total 6 377.00 15 Adilabad Limestone 1 613.79 - Total 1 613.79 - Total 1 165.08 - Total 1	Districts Minerals Government No. Government Area No. Area No. Area Sikkim East Copper ore Total - - 3 96.32 Ariyalur Limestone - - 6 624.53 Kanyakumari Garnet 3 153.19 - - Salem Magnesite 3 223.81 - - Sivaganga Graphite - - 2 242.46 Tirunelveli Garnet - - 1 4.36 Limestone - - 1 23.71 Vellore Vermiculite - - 1 23.71 Virudhunagar Limestone - - 3 869.91 Total 6 377.00 15 1796.64 Adilabad Limestone 1 839.38 1 210.00 Rangareddy Limestone 1 613.79 - -	Districts Minerals Government Government No. Area No. Sikkim East Copper ore - - 3 96.32 3 Ariyalur Limestone - - 6 624.53 6 Kanyakumari Garnet 3 153.19 - - 3 Salem Magnesite 3 223.81 - - 3 Sivaganga Graphite - - 2 242.46 2 Tirunelveli Garnet - - 1 4.36 1 Limestone - - 2 31.67 2 Vellore Vermiculite - - 1 23.71 1 Virudhunagar Limestone - - 3 869.91 3 Total 6 377.00 15 1796.64 21 Adilabad Limestone 1 613.79 - - 1 <t< td=""></t<>

Prospecting Licences

Under the Mines & Minerals (Development & Regulation) Act, 1957, "Prospecting Licence" (PL) means a licence granted for the purpose of undertaking "prospecting operations" with a view to exploring, locating or proving mineral deposits. The State Governments and Union Territories are empowered to grant/execute/renew/revoke prospecting licences (PL) and composite licence (A prospecting licence-cum-mining lease as defined in the Act i.e. having two stage concession granted for purpose of under taking prospecting operations followed by mining operations) under provisions of Minerals (other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016. The area restrictions for prospecting licences have been substantially liberalised by making such restrictions applicable state wise instead of the country as a whole.

4.1 STATE WISE DISTRIBUTION OF PROSPECTING LICENCE

As per information received from the State Governments/Union Territories, 05 prospecting licence (excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas and Minor Mineral) were granted covering an area of 2869.048 hectares during 2015-16.

The States where prospecting licences (excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas and Minor Mineral) were granted during 2015-16 include Odisha (3), Andhra Pradesh (01) and Chhattisgarh 01. Reviewing area wise, Chhattisgarh covered 1548.00 hectares, Andhra Pradesh 900.00 hectares and Odisha 421.048 hectares.

4.2 MINERAL WISE DISTRIBUTION OF PROSPECTING LICENCES

Mineral wise, in 2015-16, prospecting licences (excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas and Minor Mineral) granted were for Chromite (3) and two in respect of group of major minerals. Chromite accounted for the area of 421.048 ha out of the total area of 2869.048 ha for which Prospecting Licences (excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas and Minor Mineral) were granted during 2015-16. Group of minerals category covered an area of 2448.00 ha.

The state wise & mineral wise distribution of prospecting licences granted during 2013-14 to 2015-16 is given in Table-15 and 16 respectively.

Table-15: Prospecting Licences Granted from 2013-14 to 2015-16 (By States)

State	2013-14*			2014-15*	2015-16**		
	No.	Area	No.	Area	No.	Area	
		(In ha)		(In ha)		(In ha)	
Andhra Pradesh	32	4893.51	-	-	1	900.00	
Arunachal Pradesh	1	1000.00	3	6122.00	-	-	
Chhattisgarh	-	-	5	56.64	1	1548.00	
Gujarat	-	-	-	-	-	-	
Jharkhand	6	156.77	4	21.75	-	-	
Madhya Pradesh	56	9229.47	29	1385.39	-	-	
Maharashtra	11	597.44	-	-	-	-	
Manipur	4	3730.00	-	-	-	-	
Odisha	-	-	-	-	3	421.048	
Rajasthan	30	4909.27	109	19630.03	-	-	
Tamil Nadu	-	-	8	249.97	-	-	
Talangana	-	-	6	767.83	-	-	
Uttarakhand	6	72.90	4	21.75	-	-	
Total	146	24589.36	168	28255.36	5	2869.048	

^{*}Excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas (includes the minerals declared as minors as per Gazette Notification dated 10th February 2015).

** Excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas & minor minerals.

Table-16: Prospecting Licences Granted from 2013-14 to 2015-16 (By Minerals)

Mineral		2013-14*	2014-15*		2015-16**		
	No.	Area (In ha)	No.	Area (In ha)	No.	Area (In ha)	
Barytes	5	22.09	-	-	-	-	
Bauxite	2	170.38	-	-	-	-	
Calcite	-	-	8	361.96	-	-	
China clay	6	135.00	3	100.00	-	-	
Chromite	-	-	-	-	3	421.048	
Diamond	-	-	-	-	-	-	
Dolomite	1	4.50	2	20.60	-	-	
Fireclay	1	34.29	-	-	-	-	
Garnet (abrasive)	1	112.50	1	160.77	-	-	
Graphite	-	-	6	3708.44	-	-	
Gypsum	-	-	15	5469.16	-	-	
Iron ore	5	1019.94	2	221.09	-	-	
Laterite	16	188.91	6	54.05	-	-	
Limestone	30	15410.52	18	1060.78	-	-	
Limestone (cement grade)	-	-	17	13080.40	-	-	
Manganese ore	18	675.72	5	819.86	-	-	
Mica	5	91.63	-	-	-	-	
Pyrophyllite	1	25.00	1	6.84	-	-	
Quartz	3	93.31	1	5.00	-	-	
Red ochre	-	-	1	42.00	-	-	
Rock Phosphate	-	-	3	101.10	-	-	
Talc/Soapstone/steatite	5	36.96	4	21.75	-	-	
Semi Precious Stone	-	-	-	-	-	-	
Silica sand	3	63.94	28	1222.27	-	-	
Siliceous Earth	-	-	4	264.79	-	-	
Group of minerals	44	6504.67	43	1534.50	2	2448.00	
Total	146	24589.36	168	28255.36	5	2869.048	

^{*}Excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas (includes the minerals declared as minors as per Gazette Notification dated 10th February 2015).

Source: As data received from various State Governments.

4.3 COMPOSITE LICENCES (PROSPECTING LICENCE -CUM- MINING LEASE)

"Composite Licences or prospecting licence-cum-mining lease" means a two stage concession granted for the purpose of undertaking prospecting operations followed by mining operation.

During 2015-16, no information regarding "Prospecting licence-cum-mining lease" or composite licence" having been approved/granted was received.

^{**} Excluding Atomic Minerals, Coal, Lignite, Petroleum and Natural Gas & minor minerals.

Reconnaissance Permits

Chapter



The provision of Reconnaissance Permit (RP) was introduced with effect from 20.12.1999 under the Mines & Minerals (Development & Regulation) Act, 1957 and from 18.1.2000 under the Mineral Concession Rules, 1960 & Mineral Conservation and Development Rules, 1988 made under the Act. Reconnaissance Permit is a permit granted for the purpose of undertaking "reconnaissance operations" which means any operation undertaken for preliminary prospecting of a mineral through regional, aerial, geophysical or geochemical surveys and geological mapping, but does not include pitting, trenching, drilling (except drilling of boreholes on a grid specified from time to time by the Central Government) or subsurface excavation.

As per Section 6 (1) one or more Reconnaissance Permits covering a total area of 10,000 sq.km may be granted provided that the area granted under a single Reconnaissance Permit shall not exceed 5000 sq km in a State. As per Section 7 (1) the period for which a Reconnaissance Permit may be granted shall not exceed 3 years.

As per section 10C(1) of Mines and Minerals (Development and Regulation) Amendment Act, 2015, Non-Exclusive Reconnaissance Permits may be granted in respect of any notified minerals or non-notified or a group of specified minerals, other than minerals specified in Part A or Part B of the First Schedule, subject to such terms and conditions as may be prescribed by the Central Government. (2) The holder of such non-exclusive reconnaissance permit shall not be entitled to make any claim for the grant of any prospecting licence-cum-mining lease or a mining lease. As per the Rule 3(2) of The Mineral (Non-exclusive Reconnaissance Permits) Rules, 2015, the State Government shall establish an online system for grant of non-exclusive reconnaissance permits.

During 2015-16, no information regarding Reconnaissance Permits/Non-Exclusive Reconnaissance Permits having been approved/granted was received.

