

## CHAPTER I INTRODUCTION

Andhra Pradesh (AP) has<sup>1</sup> reserves of 48 minerals including gold, diamond, bauxite, beach sand, limestone, coal, oil and natural gas, dimensional stones and other building materials. As per Andhra Pradesh Socio Economic Survey 2012-13, the State ranks number one among all states in India in respect of reserves of barites, limestone and beach sand in the country. The respective share of different minerals found in the State in the total national production of minerals in 2010-11 were as follows: feldspar 43.33 *per cent*, quartz 43.27 *per cent*, silica sand 36.74 *per cent* and sand (others) 87.31 *per cent*.

### 1.1 Constitutional and legal provisions relating to mining

The Central and the State Governments are jointly responsible for the development of mining sector and mineral exploitation in India. Parliament had enacted the Mines and Minerals (Development and Regulation) Act (MMDR Act) in 1957 which lays out the basic legal framework for regulation of mines and development of minerals in the country. This was followed by the issue of the Mineral Concession Rules, 1960 (MCR). The State Government framed the Andhra Pradesh Minor Mineral Concession Rules 1966 (APMMC Rules) which govern the quarrying of minor minerals in Andhra Pradesh. Andhra Pradesh Water, Land, Trees Act (APWALTA) was enacted in 2002 and Andhra Pradesh Water, Land, Trees Rules (APWALTR) were framed in 2004.

The MMDR Act categorizes minerals into Minor minerals<sup>2</sup> and Other or Major minerals. The State Government is empowered to frame rules for grant of mineral concessions for minor minerals, including payment of royalty/ surface rent. The other minerals (major minerals) have been listed in the first schedule to the MMDR Act in three parts - Part A (hydrocarbons/energy minerals<sup>3</sup>), Part B (atomic minerals) and Part C (metallic and non-metallic minerals<sup>4</sup>). Central Government is the competent authority to grant leases in respect of minerals listed in Parts A and B of the first schedule. In respect of other major minerals specified in Part C of the first schedule, the State Government can grant the leases with prior consent of the Central Government. State Government is required to furnish a statement of particulars in a specified proforma, while seeking approval of the Central Government for grant of such leases.

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<sup>1</sup> Source: Government of Andhra Pradesh Socio Economic Survey 2012-13

<sup>2</sup> As per section 3(e) "Minor minerals" means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes, and any other mineral which the Central Government, may, by notification in the Official Gazette, declare to be minor mineral.

<sup>3</sup> Coal and lignite.

<sup>4</sup> Asbestos, bauxite, chrome ore, copper ore, gold, iron ore, lead, manganese ore, precious stones and zinc.

The MMDR Act also defines different types of mining concessions:-

**Reconnaissance Permit (RP)** – This allows undertaking of reconnaissance operations for preliminary prospecting of a mineral through regional, aerial, geophysical or geochemical surveys and geological mapping [Section 3(ha)].

**Prospecting Licence (PL)** – This allows prospecting operations for the purpose of exploring, locating or proving mineral deposits [Section 3(h)].

**Mining Lease (ML)** – This allows undertaking of mining operations for the purpose of winning/ excavating minerals [Section 3(d)].

Quarrying of minor minerals in the state is governed by the APMMC Rules which prohibit any person from carrying out such operations except under a lease or a permit granted under the Rules.

Rule 9 of APMMC Rules provides for provisions related to the revenue aspects of management of sand quarrying in the State, whereas Section 27 of APWALTA 2002 and Rules made thereunder deals with environmental issues. Rule 23 of APWALT Rules 2004 stipulates provisions for deciding the area of sand reaches, quantity of sand to be extracted, etc.

## 1.2 Trends in Production and Revenue Collection<sup>5</sup>

Table 1 represents the volume of reserves and annual production of minerals that contributed significantly to the exchequer during the period under review. The mining leases for coal and natural gas are granted by Government of India (GOI) and their mining activities are monitored by it under the Coal Mines (Conservation and Development) Act 1974, Coal Mines Regulations 1957, The Petroleum and Natural Gas Rules 1959, etc.

**Table 1: Annual Production of Minerals in Andhra Pradesh**

Minerals	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	CAGR <sup>6</sup>
Coal (in million tonnes)	38.43	43.76	44.48	50.56	51.33	51.03	5.8
Barites (in million tonnes)	1.02	0.91	1.99	1.17	1.3	1.43	7.0
Iron ore (in million tonnes)	5.62	9.78	10.31	6.63	1.31	1.48	-23.4
Limestone (in million tonnes)	34.62	35.58	38.72	48.14	52.2	65.04	13.4
Limestone slabs (in million sq. m.)	18.5	22.68	32.75	18.68	12.5	15.02	-4.1
Granite (in million cu.m.)	0.8	0.79	0.76	0.65	0.93	1.25	9.3
Gravel (in million cu. m.)	60.67	76.24	60.33	61.36	45.09	72	3.5
Road metal (in million cu.m.)	169.64	178.83	94.24	97.6	91.65	114.58	-7.5
Sand (in lakh cu.m)	NA	202.87	188.41	196.57	334.31	NA	18.1
Crude Oil (In lakh tonnes)	2.14	2.43	2.84	3.01	3.6	3.04	7.3
Natural Gas (in million cu.m.)	1,506	1,536	1,506	2,019	1,384	1,353	-2.1

<sup>5</sup> Publications of Mines and Geology Department for the years 2006-07 to 2011-12.

<sup>6</sup> Compound Average Growth Rate (annual).

From the table it is noted that production of sand and limestone grew at much higher rates than other minerals, while production of iron ore registered a negative growth rate over the period. The production of iron ore dropped in 2010-11 due to suspension of mining operations by AP Government. Table 2 shows the annual revenues earned from minerals in Andhra Pradesh. It is seen that 62 *per cent* of the non-tax revenues of the State collected during the period 2006-12 came from three minerals, viz. Coal, Limestone and Road metal.

**Table 2: Annual Revenues Earned from Minerals in Andhra Pradesh**

(₹ in crore)

Minerals	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Total	Share in State's total mineral revenue (%)
Crude Oil	73	91	118	121	155	130	689	6.32
Natural Gas	44	40	NA	NA	NA	NA	83	0.76
Coal	390	515	560	637	682	788	3,571	32.79
Barites	7	4	8	10	19	12	59	0.54
Iron ore	9	16	17	30	11	7	89	0.82
Limestone	158	160	174	239	330	411	1,472	13.51
Limestone slabs	6	8	15	9	7	8	52	0.48
Granite	118	117	113	70	169	250	836	7.68
Gravel	79	95	121	159	117	158	729	6.69
Road metal	223	227	201	296	303	379	1,629	14.96
Sand	NA	61	80	101	158	127	527	4.83
Other minerals	216	265	277	216	114	67	1,157	10.62
<b>Total</b>	<b>1,321</b>	<b>1,598</b>	<b>1,685</b>	<b>1,887</b>	<b>2,065</b>	<b>2,337</b>	<b>10,893</b>	<b>100</b>

The year wise budget estimates and actual realisation of mineral receipts of the State for the period 2006-07 to 2011-12 is exhibited in Table 3 which shows that there was wide variation between estimates and actual receipts.

**Table 3: Budget Estimates vis-a-vis Actuals**

(₹ in crore)

Year	Budget estimates	Actual Receipts	Variation(excess (+) / shortfall(-))	Percentage of variation
2006-07	1,265.00	1,321.25	+56.25	+4.45
2007-08	1,750.00	1,597.56	-152.44	-8.71
2008-09	2,187.50	1,684.98	-502.52	-22.97
2009-10	2,450.00	1,887.26	-562.74	-22.97
2010-11	2,695.00	2,064.86	-630.15	-23.38
2011-12	2,594.00	2,336.74	-257.26	-9.92

### 1.3 Organisational structure

The Principal Secretary (Industries & Commerce) controls the Directorate of Mines and Geology (Department). The Department is entrusted with regulatory and promotional functions for overall development of mineral sector and also for collection of mineral revenue towards state exchequer. Department is headed by Director of Mines and Geology (DMG), who oversees the functions of receipt and processing of mineral concession applications, approval of mining plans etc. The DMG is assisted by three Joint Directors, four Zonal

Joint Directors, 11 Deputy Directors and 62 Asst. Directors at the headquarters and in the field.



Besides the State Government, the Indian Bureau of Mines (IBM) under Ministry of Mines, GOI, acts as a regulatory body for underground mining under the MMDR Act. IBM has the power to inspect underground mines, approve mining plans and to suspend mining operations in the case of irregularities. Andhra Pradesh comes under the Southern zone of IBM.

## **1.4 Audit Approach**

### **1.4.1 Justification, scope and methodology for the performance audit**

Considering increase in the number of mining leases from 1,507 in 2006-07 to 2,060 in 2011-12 and revenue involved, need was felt to review the functioning of department with regard to the systems and procedures in place. Licensing and monitoring mechanisms were also planned to be reviewed with emphasis on compliance with procedures. Similarly, there was increased public and media attention on sand mining activities which presented risk factors.

Functioning of Department for the period from 2006-07 to 2011-12 was reviewed by audit between December 2011 and April 2012. Data was updated wherever possible during April 2013. Audit scope includes mineral receipts of the State excluding that of Coal, Oil and Natural Gas since they are governed and monitored by GOI and the state is only a recommending agency for granting licenses to these minerals.

As part of performance audit, records of offices of Government Secretariat (Industries and Commerce Department – Mining), DMG, 20 ADsMG<sup>7</sup>, five ADsMG (Vigilance)<sup>8</sup>, two ZJDsMG<sup>9</sup> and two DDsMG<sup>10</sup> were scrutinised.

20 out of 34 ADMG offices, which were selected on the basis of their revenue collections<sup>11</sup> were responsible for 75.28 *per cent* of total mineral revenue collections during the period under review. Of these 20 offices, seven ADMG offices were in sand rich districts located along the coastline. However, sand leases fall in the jurisdictional area of 15 offices. In these 15 offices, 116 sand reaches (out of 229) covering 160 leases were test checked.

Physical verification with help of departmental authorities was also conducted in respect of selected mines/quarries and sand reaches to check whether mining operations were being conducted in accordance with approved mining plans and to assess extent of illegal quarrying/non-compliance with stipulated terms and conditions.

Cases of short/non levy of royalty etc. noticed during local audit of department during the previous years have also been included in this report.

#### **1.4.2 Audit Objectives**

Objectives of performance audit were to ascertain and check whether:

- Systems and procedures for approval/renewal of mineral concessions were as per prescribed rules/regulations and whether these were properly complied with;
- Provisions for levy, assessment and collection of mineral receipts, viz. royalty, seigniorage fees and other levies were properly enforced to safeguard revenue of the State;
- System and procedures for auction, award of sand reaches for quarrying and granting exemptions/concessions/compensation comply with relevant laws, rules, regulations and orders issued;
- Monitoring and vigilance mechanism in Government/Directorate of Mines and Geology were adequate and effective.

#### **1.4.3 Audit Criteria**

Performance audit was benchmarked against following sources of audit criteria:

- MMDR Act, 1957, MCR, 1960 and Mineral Conservation and Development Rules, 1988 (MCD Rules) issued thereunder;

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<sup>7</sup> Anantapur, Banaganapalle, Dachepalli, Eluru, Guntur, Karimnagar, Kurnool, Manchirial, Miryalaguda, Nalgonda, Nandigama, Ongole, Rajahmundry, Rangareddy, SPSR Nellore, Tadipatri, Tandur, Vijayawada, Yerraguntla and YSR Kadapa.

<sup>8</sup> Guntur, Ongole, Rangareddy, SPSR Nellore and Vijayawada.

<sup>9</sup> Ongole and YSR Kadapa.

<sup>10</sup> Guntur and Rangareddy.

<sup>11</sup> Except revenue on Coal, Oil and Natural Gas.

- Granite Conservation and Development Rules, 1999 (GCDR);
- APMMC Rules, 1966;
- APWALTA, 2002 and APWALT Rules, 2004 and
- Orders/Notifications issued by Government from time to time.

## **1.5 Acknowledgement**

Audit acknowledges co-operation extended by Industries and Commerce Department (Mining), as well as the Directorate of Mines and Geology and their officials during course of this performance audit. An entry conference was held with Department of Mines and Geology, represented by Principal Secretary to Government (Industries and Commerce) and Director, Mines and Geology, in December 2011, where audit approach, scope and coverage were explained to them. The Exit Conference was held on 25 February 2014 wherein the audit findings were discussed with the Principal Secretary (Industries and Commerce) and the Director, Mines and Geology. The replies furnished during the Exit Conference have been duly considered while finalising this Report.