

## **CHAPTER IV**

### **ISSUES RELATING TO ENVIRONMENT**

Mining, especially mining of sand, can cause severe environmental degradation if not done scientifically. While MMDR Act, MCR, APWALTA and APMMC have sufficient safeguards built into their provisions to ensure protection of the environment, audit came across a number of such issues which have been briefly mentioned in this Chapter.

#### **4.1 Quarrying of sand beyond the limits fixed by Ground Water Department (GWD)**

As per Rule 9(B)(6) of the APMMC Rules, proposals for leasing of sand reaches are to be made by ADMG concerned after duly obtaining necessary reports/clearances from the Conservator of River and the Director, GWD. Further, Rule 23(10)(2) of the APWALT Rules provides that GWD shall take up joint inspection along with officials of Department of Mines and Geology and other departments concerned to study impact of sand mining in an area and give its recommendations.

Audit scrutiny revealed that in five ADMG offices<sup>70</sup>, while notifying ten sand reaches<sup>71</sup> for auction, the ADsMG did not specifically indicate the dimensions of sand reaches, as communicated in GWD reports, in the notifications. Also, the Department issued way bills for transportation of sand for quantities beyond the dimensions indicated by GWD. Lack of specification of dimensions for sand quarrying encouraged bidders to carry on unlimited quarrying without restrictions.

Further, audit observed that lessees quarried and dispatched 38.86 lakh cu.m of sand against quantity of 5.50 lakh cu.m prescribed by the GWD during the lease periods 2008-10 to 2010-12. Lessees quarried and despatched sand ranging from 1.15 times to 13.95 times the permitted quantity yield as per GWD feasible dimensions.

Non-inclusion of the limit of the quantity of sand in the notifications and issuance of way bills for transportation without taking into consideration the three dimensional area cleared by GWD resulted in quarrying beyond limits. Consequently, the very objective of preservation of ground water levels was defeated.

The Government replied (May 2013) that the ADsMG had issued dispatch permits to sand lease holders based on the feasibility report of GWD. It was, further replied that once a bid was knocked down, it was for the bidder to extract sand within the area specified and there could not be a limit on the quantity of

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<sup>70</sup> Anantapur, Nandigama, SPSR Nellore, Tadipatri, and Yerraguntla.

<sup>71</sup> Rachumarri, Srirangapuram (Anantapur), Malkapuram (Nandigama), Viruvur, Sangam, Pottapalem, Mohamadapuram (SPSR Nellore), Nagalapuram (Tadipatri) and VenkaiahKalva Reach-I, Animala Sand Reach (Yerraguntla).

sand quarried. Estimates of GWD could not therefore be considered in terms of availability of sand but only considered to fix boundaries.

However, sand quarrying was to be done to the extent of the dimensions (which includes the area and depth) and quantity recommended by GWD with reference to Rule 23 of APWALT Rules.

#### **4.2 Use of machinery for digging/ loading of sand affecting the environment**

The APWALT Rules, 2004 restrict sand mining to a depth of one or two metres (depending on the thickness of sand deposition). Use of machinery leads to extraction of sand beyond this depth. According to Rule 9 (x) (e) of APMMC Rules, 1966, the bidders shall not use proclains<sup>72</sup> or any other machinery for the purpose of digging/loading. However, the rules are silent about the penal action to be taken in such cases.

Tahsildar, Pamidimukkala reported (January 2011) that three JCB proclains were found at the Lankapalli Sand reach loading sand. Further, Regional Vigilance and Enforcement Officer, Vijayawada seized four proclains on the same reach during May 2011, which were being used by the leaseholder to load the sand. Consequently, DDMG, Kakinada, requested (June 2011) the DMG to recommend cancelling the lease for repeated violation of Rule 9(x)(e). The lease was not cancelled by the Government in spite of DMG's recommendation in November 2011 and was allowed to continue the quarrying till the expiry of lease term (March 2012).

Government while accepting (May 2013/February 2014) the use of machinery by the lease holders stated that in spite of the terms and conditions in the lease deed, bidders were resorting to use of proclains and were being forced to pay penalties whenever noticed by the officials of the Department. It was also stated that the department effectively monitored sand quarrying as part of regulatory function. It had seized 69 proclains and collected penalty of ₹ 59.74 lakh. Further, in the case of Lankapally sand reach, the Department collected ₹ one lakh as penalty after seizing the proclains. They also stated that the departmental officials were conducting regular checks, seizing machinery and imposing penalties.

Imposition of penalties had not prevented indiscriminate sand quarrying beyond the depth prescribed; hence audit observed that more effective measures and vigilance was needed to curb such activities in future.

#### **4.3 Financial assurance not/short obtained**

As per the provisions under Rule 23 F(1) of Mineral Conservation & Development Rules, 1988, financial assurance at the rate of ₹ 25,000 for 'A' Category (fully mechanized) mines and ₹15,000 for 'B' Category (semi mechanized) mines per hectare of the mining lease area put to use for mining and allied activities (subject to a minimum of ₹ two lakh for 'A' Category and ₹ one lakh for 'B' Category) has to be furnished by every lease holder to IBM/

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<sup>72</sup> Heavy hydraulic powered excavation machine.

State Government to ensure that the protective measures including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan.

Audit noticed in three offices<sup>73</sup> of ADsMG that financial assurance to the tune of ₹ 6.39 crore<sup>74</sup> was not obtained either partially or fully from 14 lessees of the mining leases granted between 2006 and 2012. Government (May 2013) replied that the lessees were paying financial assurance on the lease area put to use in the first five year period to the IBM/State Government and as such, there was no possibility for getting short collection of financial assurance.

However audit observation was based on the information/records made available by three ADsMG.

#### 4.4 Results of field visit by Audit Teams

##### 4.4.1 Non-adherence to rules / conditions of lease by lessees observed during visits of mines / quarries

During the audit of ADMG offices between January 2012 and April 2012, Audit along with the ADMG and other technical staff conducted physical inspection of 32 mining/quarry leases, 13 sand reaches and the violations observed are as detailed below.

Sl. No.	Nature of violation	Name of the ADMG Office	No. of cases
1.	Boundary Marks/Pillars are to be erected at mining area to demark the approved mining area from the areas restricted on environmental grounds etc. But boundary pillars were not found to be erected, which is in violation of rules.  (As per Rule 27(g) of MCR, 1960 the lessee shall, at his own expense, erect and at all times maintain and keep in good, repair boundary marks and pillars necessary to indicate the demarcation shown in the plan annexed to the lease).	Banaganapalle	14
		Kurnool	1
		Ongole	5
		Six Offices <sup>75</sup>	13
2.	Proper disposal of mining waste and sub-grade material was not taken up to prevent environmental degradation.  (As per Rule 33(2) of the MCDR, 1988, the dump shall be properly secured to prevent escape of material there from in harmful quantities which may cause degradation of environment).	Banaganapalle	14
		Hyderabad	2
3.	Barrier Zone not provided in the mining areas to keep the pollution under control.  (As per Rule 37 of the MCDR, 1988, air pollution due to fire, dust, smoke or gaseous emissions during prospecting, mining, beneficiation or related activities shall be controlled and kept within permissible limits).	Ongole	5
		Hyderabad	2

<sup>73</sup> Dahchepalli, Kurnool and Miryalguda.

<sup>74</sup> Wherever the exact extent of land put to use for mining purpose is not known, the minimum financial assurance to be submitted is taken.

<sup>75</sup> Guntur, Nandigama, Nellore, Rajahmundry, Srikakulam and Vijayawada.

Sl. No.	Nature of violation	Name of the ADMG Office	No. of cases
4.	A granite lessee used the non working quarry for dumping the mining waste of four other leases held by the lessee.  (As per Rule 22(2) of the Granite Conservation Rules, 1999, small non-saleable granite blocks suitable for possible use in manufacture of bricks as well as flooring or wall tiles shall be segregated from the dumps of granite rejects and stored separately for future use).	Ongole	1
5.	A mining lessee created the benches for mining with excess height than required and did not provide site services such as rest shelter, first aid room etc.  (As per Section 4 of the MMDR Act, 1957, no person shall undertake any reconnaissance, prospecting or mining operations in any area, except under and in accordance with the terms and conditions of a reconnaissance permit or of a prospecting licence or, as the case may be, of a mining lease granted under this act and the rules made there under).	Hyderabad	3

Government replied (May 2013) that, the ADsMG concerned were taking measures to rectify breaches pointed out by audit.

**4.4.2 Quarrying in violation of Andhra Pradesh Water, Land Trees Act (APWALTA) limits**

As per Rule 23 of APWALT Rules 2004, the depth of removal of sand shall be restricted to one metre where the thickness of sand deposit is more than three metres and less than eight metres. However, sand quarrying may be extended to two metres where the thickness of sand is good (more than eight metres), but in no case beyond two metres.

During field visit to Lankapally Sand reach under the jurisdiction of ADMG, Vijayawada (January 2012), audit observed that the lease holder seemed to have quarried the sand into deep levels, which was in violation of the APWALT Rules. GWD had given clearance (April 2010) to quarry the sand in this reach up to a depth of two metres only.

During field visit to Mudivarthypalem under SPSR Nellore District (February 2012), audit observed that the lease holder seemed to have quarried the sand at depths greater than permitted whereas only one metre was cleared by GWD.



(Two photographs of Lankapally Sand reach, evidencing deep quarrying)

The Government, while admitting (February 2014) indiscriminate sand quarrying stated that though the rules restricted extraction of sand in terms of thickness depending upon availability of sand in the area, the same could not be implemented in view of the policy involving sealed tender-cum-public auctions having no restriction on the bid amounts.

#### **4.4.3 Construction of unauthorized path for transportation of sand**

During field visit to Chevitikallu sand reach under the jurisdiction of ADMG, Nandigama, Krishna District (March 2012), audit observed that the lease holder had constructed a path, with a width of 10 metres and a length of five to six kilometres across the river bed, for use as a ramp to transport sand. This extended up to the bank on the other side in Guntur District. The path constructed was inhibiting the free flow of river resulting in stagnant water on either side of the ramp, besides altering the natural course of the river.

The Government replied (May 2013) that the distance to the specified sand shoal/pocket identified for extraction was located far away. The Government further replied (February 2014) that since the double lane road work on Krishna Left Flood bank was being taken up, the ramps were permitted without affecting the progress of the work. A pipeline having two meters diameter was laid along the flow of the river over which way was made by gravel so as to facilitate the movement of vehicles for extraction of sand without violation to the River Conservancy Act while allowing smooth flow of water. The arrangement was made with the consent of Irrigation Department by the lease holder.

No document, however, was made available to audit regarding the consent of Irrigation Department.

During field visit to Mudivarthypalem reach in SPSR Nellore district, audit team observed that a long path was laid inside the river by the lease holder from the mouth of the ramp for free movement of lorries to places of sand deposit. The path was laid on the river without obtaining the permission of Penna River Conservatory Authority which monitored the river conservation.

The Government accepted (February 2014) the observation of audit and stated that the Department had noticed the violation in joint inspection by them in October 2011 and had issued demand notice for ₹ 4.27 crore towards the penalty of five times the Seigniorage fee in addition to normal Seigniorage fee on which lessee preferred an appeal before the Government. The appeal was still pending with the Government (February 2014).



(Photograph of obstructing pathway at Chevitikallu sand reach)



(Photograph of long path laid at Mudivarthipalem)

#### **4.4.4 Illegal quarrying**

Sand is a very important ground water recharge medium and in the absence of sand, rainfall would result in runoff. Illegal quarrying by way of over exploitation of sand has a negative impact on environment which not only results in reduced recharging of groundwater bodies but also affects the quality of groundwater. Timely recognition of over exploitation and organised action to counter it is the need of the hour.

During field visit to Godavarru sand reach of Guntur District (February 2012), audit observed that though the reach was non-working for the past nine months, there was evidence that sand was quarried and transported illegally at three places. During visit to Thulluru sand reach of Guntur District, it was observed that the reach was imprinted with the wet vehicle tyre tracks indicating illegal excavation and transportation of sand. This reach had not been auctioned since 2007. Large quantities were observed to have been quarried at many places. At some places huge heaps of sand were found, indicating probable illegal quarrying.





(Four photographs of Godavarru sand reach evidencing illegal quarrying)



(Photograph of Thulluru sand reach pointing to illegal quarrying)

Government stated (February 2014) that the departmental special vigilance squads/ regional mobile squads in addition to monitoring by the vigilance and enforcement department has taken all preventive steps to control illicit quarrying by making surprise checks and collecting penalties. However, such quarrying in the un-auctioned reach was continuing.