

Chapter III

Compliance Audit

Mines, Geology and Petroleum Department

3.1 Adherence to Environmental Issues on Mining Activities in Rajasthan

3.1.1 Introduction

Rajasthan has vast reserves of minerals like copper, lead, zinc, rock phosphate, soapstone, silica sand, limestone, marble and gypsum. Most of the mineral wealth of the State is found in the Aravalli mountain range.

Mining exerts pressure on environment at many stages *i.e.*, exploration, extraction, processing and post closure of mines. The key environmental issues related to mining are land degradation including aridification, spread of wind-blown sand on agricultural fields, gully erosion, soil contamination and pollution of surface and ground water.

Rajasthan is also facing the problem of rampant illegal mining in and around the Aravalli hills range which is threatening its biodiversity and ecosystem.

Regulatory framework

Mineral extraction activities in the State are regulated under the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 and rules/policies made thereunder. Mining leases/quarry licences are granted by the Mines and Geology Department (MGD), Government of Rajasthan (GoR). The applicant has to obtain approvals before the grant of mining lease/quarry licence for diversion of forest land for non-forest purposes and Environmental Clearance (EC) from Ministry of Environment and Forest (MoEF), Government of India (GoI) or State Level Environment Impact Assessment Authority (SEIAA) as the case may be along with Consent to Establish (CTE) and Consent to Operate (CTO) from Rajasthan State Pollution Control Board (RSPCB).

After the grant of Mining Licence, the lessee is required to furnish reports on production of minerals and the measures for environmental protection to the Mines Department and RSPCB.

Organisational structure

At the Government level, the Principal Secretary, Mines and Petroleum, Jaipur and at the Departmental level, the Director, Mines and Geology (DMG), Udaipur are responsible for administration and implementation of the related Acts and Rules in the Department. The DMG is assisted by seven Additional Directors, Mines (ADM) in administrative matters and by a Financial Advisor in financial matters. The ADMs exercise control through nine circles headed by Superintending Mining Engineer (SME).

There are 49 Mining Engineers (ME) and Assistant Mining Engineers (AME), who are responsible for regulation, assessment and collection of revenue receipt on account of minerals. The Department has a separate Vigilance Wing headed by ADM (Vigilance), Jaipur for prevention of illegal excavation and despatch of minerals which was shifted (August 2016) to Udaipur.

As on 31 March 2016¹, there were 167 mining leases for major minerals and 15,318 mining leases for minor minerals besides, 18,103 quarry licences.

Why we chose the topic

There were frequent reports in the print and electronic media regarding rampant illegal mining and environmental degradation especially in the Aravalli hills due to unscientific mining or mining operations without conforming to norms prescribed by various regulatory authorities. Previous audits conducted by this office had also highlighted individual cases of illegal mining or mining operations allowed by the Mines Department without regulatory approvals.

3.1.2 Audit scope and methodology

Audit selected nine AME/ME offices² of five districts³ along with concerned five Regional Offices⁴ (RO) of RSPCB through probability proportional to size with replacement method to examine the compliance with existing environmental provisions by the lessees and monitoring by the concerned authorities. The records pertaining to the period from April 2010 to March 2017 were scrutinised.

Audit scrutiny was carried out from November 2015 to May 2016 and May 2017 to June 2017. There were 4,150 leases in the selected AME/ME offices. Records of 288 operating mining leases selected at random were examined by Audit including 35 cancelled/surrendered mining leases. In addition, records maintained by the Principal Secretary, Mines and Petroleum, Jaipur and DMG, Udaipur were also examined.

Joint physical inspection of selected leases

A joint physical inspection of 136⁵ mining leases out of the selected 288 mining leases was conducted along with representatives of the Mines Department to assess the extent of compliance with environmental provisions during operation of leases and after closure of mines. A representative of the lessee, wherever available, was also included in the joint physical inspection.

¹ Compilation of figures as on 31 March 2017 relating to mining leases and quarry licences was in progress (June 2017) at DMG level.

² ME Alwar, ME Jaipur, AME Kotputli, AME Neem Ka Thana, ME Rajsamand-I, ME Rajsamand-II, AME Rishabhdeo, ME Sikar and ME Udaipur.

³ There are 33 districts in the State of Rajasthan, out of which 15 districts are falling in the Aravalli mountain range. Five districts were selected on the basis of working mines *i.e.* Alwar, Jaipur, Rajsamand, Sikar and Udaipur.

⁴ Alwar, Bhilwara, Jaipur, Sikar and Udaipur.

⁵ 43 major mineral leases and 93 minor mineral leases including 21 cancelled and 2 surrendered leases.

Cross verification of data

Out of 136 leases for which joint physical inspection was conducted, the Mines Department had conducted 19 inspections in 17 leases whereas RSPCB had carried out 50 inspections in 38 leases during 2010-15⁶.

Joint physical inspection findings were cross verified with inspection reports of RSPCB (based on which the CTO was granted), the inspections carried out by AME/ME and the Mining Plan submitted by the lessees and approved by the Mines Department to ascertain whether the facts reported by the RSPCB or Mines Department were adequate, reliable and complete.

This has been discussed in para 3.1.6.3 of this report.

Acknowledgement

The Indian Audit and Accounts Department acknowledges the co-operation of the MGD and the RSPCB in providing the necessary information and records for audit. An Entry Conference was held on 7 January 2016, with the DMG, Udaipur, wherein objectives and methodology of audit were explained. The factual statement was issued to the Department/Government on 27 May 2016. The reply of the factual statement was received from the Government on 22 July 2016 and from the RSPCB on 7 October 2016.

An exit conference was held on 7 November 2016 with the Secretary, Mines and Petroleum, GOR, Jaipur and Chairperson, RSPCB, Jaipur in which results of audit and recommendations were discussed. The replies of the Government/Department/Board received during the exit conference and in response to the factual statement have been included in the respective paragraphs.

The major issues which were covered during the audit were (i) Mining without environmental clearance and consent to operate (ii) cases of illegal mining (iii) Non-compliance with directions of the Hon'ble Supreme Court of India (iv) Non-compliance with environmental conditions mentioned in mining plan and (v) Management of funds relating to environment protection.

Audit Findings

3.1.3 Mining without Environmental Clearance and Consent to Operate

As per the notification dated 27 January 1994 issued by the MoEF, prior EC was to be obtained from MoEF for new mining projects or expansion or modernisation of existing mining projects relating to major minerals if the lease area was more than five hectares. This notification was superseded by notification dated 14 September 2006 which states that all mining projects irrespective of being major mineral or minor mineral in area of five hectares

⁶ After conducting joint physical inspections of 136 leases, Mines Department had conducted 25 inspections in 25 leases and RSPCB had conducted three inspections in two leases during 2015-17. As such inspection reports of the RSPCB were not compared due to gap in period.

to less than 50 hectares were required to have prior EC from the SEIAA and projects in area of 50 hectares and above were required to have prior EC from the MoEF. The leases of minor minerals in an area of less than five hectares also came into the ambit of prior EC after the Hon'ble Supreme Court of India (SCI) vide its order dated 27 February 2012 made it mandatory. Further, the leases of major minerals having area less than five hectares requires EC *vide* amendment dated 07 October 2014 in EIA notification 2006. During test check of the records, it was noticed that there were instances of enhancement of mineral production without EC, mining operations were done without renewing the lapsed CTO and excavations of minerals were done violating CTO conditions as described below:

3.1.3.1 Enhancement of mineral production without EC

The MoEF vide its office memorandum dated 18 May 2012 directed that the EIA notification issued on 14 September 2006 would be applicable on all mining projects of minor minerals irrespective of the size of the lease. As per the conditions of EIA notification, enhancement of production would require prior EC from the SEIAA. Further, as per Section 15 of the EP Act, 1986, whoever fails to comply with or contravenes any of the provisions of this Act, or the rules made or orders or directions issued there under, shall be punishable with imprisonment for a term which may extend to five years with fine which may extend to one lakh rupees, or with both.

On scrutiny of records of selected offices, it was noticed in four AME/ME offices that four lessees had enhanced their production of mineral without EC. The details are as under:

S.no.	Name of Lessee	Mineral and area (in hectare)	Period of previous CTO and permitted mining capacity	Application date for CTO for enhancement of production	CTO issuance date for enhancement of production	Period of CTO and permitted mining capacity
1	Gannayak Mining Pvt Ltd. (ML No. 46/2011)	Marble (4)	21.12.2011 to 30.11.2014 (40,575 MT/Annum)	22.1.2013	30.1.2013	22.1.2013 to 31.12.2015 (5,01,288 MT/Annum)
2	Vineet Udhyog (ML No. 41/93 old No. 202/82)	Serpentine (1)	1.11.2011 to 31.10.2014 (11,847 MT/Annum)	10.10.2012	18.10.2012	10.10.2012 to 30.9.2015 (1,00,000 MT/Annum)
3	M/s Arora's J.K. Natural Marbles Limited (ML No 11/03)	Marble (4)	1.11.2011 to 31.10.2014 (50,000 MT/Annum)	12.6.2014	9.7.2014	1.5.2014 to 30.4.2017 (1,07,165 MT/Annum)
4	M/s Singhal Stones (ML No. 260/95)	Masonry Stone (1)	1.1.2011 to 31.12.2013 (100 MT/Day)	1.11.2012	26.11.2012	1.11.2012 to 31.10.2015 (500 MT/Day)

No action to stop mining operation was taken against the lessees by the concerned AME/MEs and the lease holders were allowed to continue their operations. Further, the ROs of RSPCB (Bhilwara, Jaipur and Udaipur) issued

CTOs in clear violation of EIA notification and no action was initiated against these lessees for imposing penalty. There was lack of co-ordination between Mines Department and the RSPCB.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that directions had been issued (8 June 2016 and 15 July 2016) to the concerned ME/AME offices for issuing notices for enhancement of production without EC.

3.1.3.2 Mining operations without renewing the lapsed CTO

The RSPCB grants CTO to the mining units prior to the start of mining operation for excavating the quantity of mineral in a specified period. The lease holders irrespective of the size and nature of the lease have to obtain CTO from the RSPCB for undertaking mining operations under Section 21(4) of the Air (Prevention and Control of Pollution) Act, 1981 and Section 25 and 26 of the Water (Prevention and Control of Pollution) Act, 1974. Further, Rule 37T(1) of the RMMC Rules, 1986 also provides that each lessee/quarry licensee has to obtain CTO from the RSPCB prior to start of mining operations and implement the conditions of CTO strictly. Further, the mining unit shall submit a fresh application for consent to operate at least 120 days in advance of expiry of the consent period for its renewal.

On scrutiny of records of selected five AME/ME offices⁷ for the period from April 2010 to March 2017, it was noticed that nine lease holders having 563.11 hectares lease area excavated 1.72 lakh MT mineral masonry stone, marble, soapstone and quartz without obtaining CTO or renewing the lapsed CTO. It was noticed that no action to stop mining operations was taken by the concerned AME/ME against the lease holders.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that directions had been issued (8 June 2016 and 15 July 2016) to the concerned AME/ME offices for closing of mining operations immediately if mines were working without CTO and to issue notices to concerned lessees after verification of facts. Further, DMG stated in exit conference (November 2016) that the Department now has an online system in place and *rawannas*⁸ are generated only after entry of CTO details.

3.1.3.3 Excavation of mineral violating CTO conditions

The EC of each lease specifies the mineral production quantity per year during the lease period. The CTO also prescribes the quantity of mineral which can be excavated during a specified period. If any lease holder wants to enhance production of mineral then he has to apply for a revised CTO.

Scrutiny of the records of the selected leases disclosed that:

➤ In seven AME/ME offices⁹, 32 lease holders having an area of 96.75 hectares had excavated 7.29 lakh MT minerals marble, dolomite,

⁷ Jaipur, Rajsamand-I, Rajsamand-II, Sikar and Udaipur.

⁸ "Rawanna" means delivery challan for removal or despatch of mineral from mines.

⁹ Jaipur, Kotputli, Rajsamand-I, Rajsamand-II, Rishabhdeo, Sikar and Udaipur.

masonry stone, quartz, feldspar, serpentine and soapstone in excess of quantity authorised in the CTO.

It was noticed that the concerned AME/ME did not initiate any action against this unlawful excavation even though contravention of CTO condition can lead to withdrawal of CTO. The ROs of RSPCB also did not take any action against these violators and renewed CTOs for future period. The matter was brought to the notice of the Government and the RSPCB. The Government replied that action in this regard was required to be taken by the RSPCB, SEIAA and MoEF.

The reply is not acceptable as the Department issued *rawannas* to the lessees for despatch of minerals from mining area. The *rawannas* should have been issued as per the quantity permitted in CTO.

Member Secretary, RSPCB stated in exit conference (November 2016) that wherever excess excavation of mineral was found, the lessee would be prosecuted and orders had already been issued for prosecution in respect of all those mines where production exceeded the quantity authorised in the CTO by 20 per cent.

➤ *Stringent action must be taken against the violators carrying out unlawful excavation in contravention of the conditions stipulated in EC and CTO.*

3.1.4 Illegal Mining

Mining without a licence, mining outside lease area, raising of minerals without paying royalty, *etc.* constitute illegal mining. Illegal mining activities put immense pressure on environment because these do not comply with any regulations or environmental conditions. Illegal mining operations have serious consequences on natural resources such as forests, rivers, flora and fauna, and public health. It was noticed that there was inadequate follow up of cases on illegal mining, lack of deterrence due to delay in issue of notices and non-implementation of policy measures as narrated below:

3.1.4.1 Inadequate follow up on illegal mining cases registered in selected ME offices

On detection of illegal mining, transportation and storage of minerals, *Panchnamas*¹⁰ were to be prepared and recorded in the register to monitor the recovery of cost. The cases of illegal excavation, despatch and storage of minerals are either compounded by recovering cost of mineral or lodged in the court through police. These cases are monitored through MIS sent to DMG through SMEs of the circle.

Scrutiny of the records of nine AME/ME offices revealed the following position of illegal mining, transportation and storage of minerals during 2011-12 to 2016-17.

¹⁰ Verification note made by the inspecting officer on the spot regarding illegal excavation.

Name of office	No. of cases registered			Total quantity of minerals (in lakh MT)	Amount Recovered (₹ in Crore)	Outstanding amount (₹ in Crore)
	Illegal mining	Illegal transportation	Illegal storage			
ME Alwar	115	786	78	3.03	4.71	2.30
ME Jaipur	166	457	1	4.01	5.33	2.16
AME Kotputli	108	648	0	20.94	6.46	26.89
AME Neem Ka Thana	5	82	1	0.02	0.63	0
ME Rajsamand-I	8	37	0	0.005	0.18	0
ME Rajsamand-II	76	344	5	0.20	1.32	0.02
ME Sikar	206	379	1	67.22	4.94	147.15
ME Udaipur	106	433	14	3.45	1.93	0.41
AME Rishabhdeo	1	14	1	0.002	0.07	0
Total	791	3,180	101	98.87	25.57	178.93

As seen from the above table, selected nine AME/ME offices had registered 4,072 cases of illegal mining, transportation and storage of mineral during 2011-12 to 2016-17. Around 98.87 lakh MT minerals were found to have been illegally excavated. The Department, however, could recover only ₹ 25.57 crore against recoverable amount of ₹ 204.50 crore.

Examination of the documents related to illegal mining and transportation disclosed that name of villages from where the vehicle owners had loaded the illegally excavated minerals were mentioned in the *panchnamas*. However, specific site or location was not mentioned in the *panchnamas*. The ME did not investigate further regarding the source or location of illegal excavations and the cases were closed whenever the recoveries were made. However, the recoveries were made from the vehicle owners while the illegal miners went undetected and continued illegal mining.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that directions would be issued to the subordinate offices for filling complete details in *panchnamas* and for recovery of the outstanding amount in cases of illegal mining.

3.1.4.2 Lack of deterrence due to delay in issue of notices and recovery of the penal amount from illegal miners

As per Rule 48 (5) of the RMMC Rules 1986, if the mineral was found to have been despatched or consumed by the illegal miner, the authorities may recover the cost of mineral along with rent, royalty or the tax chargeable on the land occupied or mineral excavated. The cost of mineral shall be computed at 10 times the royalty payable at the prevalent rates.

It was noticed that no time frame was prescribed for issue of notices, raising of demand and recovery of cost of mineral and royalty from the illegal miners.

As a result, there were delays in issue of notices and realisation of amount from the illegal miners. Some cases are discussed below: -

- A joint team of ME Sikar on inspection (11 August 2014) found that six lease holders had excavated 1.09 lakh MT masonry stone, granite and murrum from outside their lease area. ME Sikar issued show cause notices (September/October 2014) to these lease holders for illegal excavation of minerals. Five lease holders out of six had obtained stay orders (8 January 2016) against recovery from the court of AD (Mines) Jaipur and the stay against recovery could not be vacated till June 2017. In remaining case, SME Jaipur constituted (12 August 2016) a committee for verification of illegal mining in the area and verification report was awaited (June 2017).
- Mining operations in a lease (ML 65/2000) were stopped (5 March 2010) by the ME Sikar as the mine was falling in Aravalli mountain range. The mine Foreman during inspection (16 October 2014) of the lease area found that the lessee had excavated 1,295 MT masonry stone from the lease area after the mine had been closed on the directions of ME. First Information Report was lodged (17 October 2014) in Dantaramgarh police station. However, no further action was taken against the lessee either by the ME or by the Police.
- During scrutiny of records of selected leases of ME Alwar, it was noticed that in two cases (450/09 and 554/09) a committee¹¹ had reported (18 July 2015) that the lease holders had despatched (upto February 2015) 89,795 MT masonry stone from their lease area as against excavation of 6,091 MT masonry stone as per pit measurement on 4 March 2015. This had resulted in excess despatch of 83,704 MT masonry stone excavated from somewhere else by misusing *rawannas*. The ME raised (September 2015) demand against these lessees. The position relating to recovery of demand was not intimated (June 2017).

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that explanation from concerned MEs would be called for and directions had been issued for taking action to recover the amount.

3.1.4.3 Non-implementation of policy measures for curbing illegal mining

The Rajasthan Mineral Policy (Policy), 2011 (effective from 28 January 2011) stipulated certain measures for curbing illegal mining in the State. Perusal of records of DMG and selected offices disclosed that no concrete measures *viz.* regulatory supervisions, proper vigilance, non-initiation of incentives schemes, modernisation of check posts and restoration and reclamation of mined out pits were taken as detailed below:

¹¹ The DMG constituted (22 February 2015) a committee under chairmanship of ADM (Vigilance) for joint inspection of leases in District Alwar.

Regulatory supervision

As per the policy, the State Government need to take steps to improve the regulatory supervision for checking illegal mining and to incentivise the Village *Panchayats* to keep vigil on illegal mining.

Further, the DMG had increased the norms for inspection of subordinate offices, mining leases and check posts each year. As a result, the AME/ME had to conduct 120 inspections of mining leases per year. No specific norm was prescribed for the Foreman but only field duties were assigned to him. During audit of the selected AME/ME offices, it was noticed that no register had been prescribed to record details of inspections carried out by the ME and Foreman. As a result, fulfilment of prescribed inspection norms could not be ascertained. Further, no provisions for incentivising the village *Panchayats* were incorporated in the RMMC Rules, 1986 (February 2017). As a result, the objective of the policy could not be achieved.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that provisions regarding improving the regulatory supervision were in process for inclusion in Rajasthan Minor Mineral Concession Rules, 2017 but still it could not be incorporated.

Vigilance

As per the policy, vigilance wing of the Department was to be strengthened for a close watch on mining activities. Accordingly, offices were to be located at appropriate places in the State.

It was seen that the State Government restructured (July 2011) and strengthened the vigilance wing by creating additional posts. Specific inspection targets were fixed for ADM (Vigilance), SME (Vigilance) and ME (Vigilance) to inspect subordinate offices, check posts and mining leases.

However, the vigilance offices lacked necessary resources and vital posts such as ME (Vigilance), AME (Vigilance), remained largely vacant. For example, the Government created (August 2013) ME (Vigilance) offices at Alwar and Sikar and AME (Vigilance) offices at Kotputli and Rajsamand. No independent ME (Vigilance) Alwar (August 2013 to March 2017), ME (Vigilance) Sikar (October 2014 to March 2017), AME (Vigilance) Kotputli (August 2013 to March 2017) and AME (Vigilance) Rajsamand (August 2013 to November 2014) were posted in newly created offices.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that the vigilance wing would be further strengthened.

Incentive scheme

As per the policy, an incentive scheme to award officers of the Department making best efforts for checking unauthorised mineral movement and illegal mining shall be introduced. A scheme for rewarding the informers on the basis of quality of information was also envisaged.

It was noticed that no incentive scheme was introduced by the State Government/Department to award officers making exceptional efforts for checking unauthorised mineral movement and illegal mining. Further, no scheme was introduced to reward the informers for providing information on illegal mining.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that proposals for incentive scheme shall be forwarded to the competent authority.

Modernisation of check posts

As per the policy, mineral check posts would be modernised with sophisticated equipment to track illegal transportation of mineral. However, no check post was modernised.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that proposals for modernisation of check posts were pending for approval at the State Government level.

Restoration and reclamation of mined out pits of illegal mining

As per the policy, suitable provisions would be made to enable Mines Department to restore the mined out pits created by illegal miners and to realise the expenditure from illegal miners as arrears of land revenue.

It was noticed that though more than seven years had passed since the promulgation of the policy, no provisions were made for recovery of compensatory amount from the illegal miners to restore the illegally mined out pits.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that rules for reclamation and restoration of mined out pits were under process.

In the exit conference (November 2016), the Department agreed that provisions contained in the policy for curbing illegal mining were not implemented completely.

- *The Department must upgrade its oversight, vigilance and preventive mechanism to curb illegal mining. It may co-ordinate with other departments to curb the menace of illegal mining activities and their adverse impact on environment.*
- *The Department must consider using satellite mapping and remote sensing techniques to track illegal mining activities in the State.*
- *The Department must show its commitment towards environment protection by fully implementing the policy measures enunciated in 2011 for curbing illegal mining. It may immediately include a provision for levying compensatory amount on illegal miners for reclamation and rehabilitation of land.*

3.1.5 Compliance with orders of the Hon'ble Supreme Court of India

During test check of the records of the selected AME/ME offices, it was seen that directions in respect of the Aravalli hills issued by the Hon'ble Supreme Court of India were not adhered to by the Department as discussed below:

3.1.5.1 Orders issued by the Hon'ble Supreme Court of India on mining activities in Aravalli hills

In the Aravalli hills, mining activities on a large scale for many years ignoring environmental concerns have caused severe environmental degradation. The Hon'ble Supreme Court of India in the matters of mining in Aravalli hills issued directives¹² from time to time as per details given in **Appendix-3.1**. Further, the Hon'ble Supreme Court of India ordered (9 May 2002) the setting up of the Central Empowered Committee (CEC) to monitor the implementation of the court's order and to look into cases of non-compliance.

The Department adopted (16 January 2003) Richard Murphy's Landforms Classification for demarcation of Aravalli hills. According to this classification, if the peak/parts of hill are 100 metres above ground level then it would come under 'Aravalli hills' and the slopes/peaks that are below that point (100 metres from ground level) were not to be treated as 'Aravalli hills'. The following deficiencies in compliance were noticed:

3.1.5.2 Grant of fresh mining leases in Aravalli hills

The Hon'ble Supreme Court of India on 8 April 2005 stated, "pending further directions, we restrain any kind of mining in forest areas. Further, we restrain mining in any area in Aravalli hills falling in the State of Rajasthan, where permission may have been accorded after 16 December, 2002". In pursuance of the Hon'ble Supreme Court of India directions, the DMG belatedly issued (January 2006) directions to stop allotment of fresh mining leases in Aravalli hills.

During scrutiny of the records of the selected AME/ME offices, it was noticed that:

- Two leases (ML 20/05 and ML 8/03) were sanctioned by the office of ME Rajsamand-I and Rajsamand-II in the Aravalli hill range in 2005 for excavation of quartz and feldspar minerals. The DMG directed (August 2006) the ME to stop the mining activities immediately and declare these mines null and void. However, no action was taken by the ME to cancel the leases. On the contrary, the lease period of ML 20/05 was enhanced (28 February 2015) by the ME Rajsamand-II upto 1 March 2056 (Original lease period 2 March 2006 to 1 March 2036).
- Four fresh mining leases (ML 61/2009, ML 3/02, ML 05/97 and ML 47/11) spread over 15.52 hectares in jurisdiction of three AME/ME

¹² In the case of T.N. Godavarman Thirumalpad v/s Union of India (Writ Petition (Civil) No. 202 of 1995)

offices¹³ were sanctioned between March 2005 and January 2012 even though these leases were in Aravalli hills. The lessees excavated 65,147.64 MT minerals (feldspar, serpentine and marble) between 2010 and 2017.

➤ Two gap areas spread over 0.6762 hectares were granted by ME Rajsamand-II (March 2007) and AME Rishabhdeo (March 2009) even though these were falling under Aravalli hills.

The DMG stated in the exit conference (November, 2016) that the matter would be looked into and reply would be furnished within two weeks. The reply was, however, awaited (October 2017).

3.1.5.3 Renewal and extension of mining leases falling under Aravalli hills

➤ The Hon'ble Supreme Court of India in the order dated 19 February 2010 stated "There were about 261 mining leases in the Aravalli range in the State of Rajasthan. Some of the mining leases have been renewed after 16.12.2002, though it was not strictly permissible as per order passed on that date. A large number of renewal applications are also pending with the authorities. Taking advantage of the deeming provision of Rule 24A Renewal of mining lease of the Mines and Mineral (Development and Regulation) Rules, 1960 almost all the lease-holders are carrying on mining operations uninterruptedly. The renewal applications are pending for a long time and in many cases for several years. Rule 24A apparently does not envisage this kind of situation. We, accordingly, restrain all those lease-holders whose applications for renewal of their respective leases are pending from doing any mining operation till further orders."

It was noticed that the State Government directed (20 October 2010) the Department to dispose cases pending for renewal of ML in Aravalli hills apart from 261 mining leases¹⁴ whose details were submitted to the Hon'ble Supreme Court of India.

On scrutiny of records of ME Rajsamand-I, Rajsamand-II and AME Rishabhdeo, it was found that the Department had renewed 18 mining leases after 19 February 2010 though they were falling under the "Aravalli hills" as per the Department's adopted definition. The lessees had excavated 16.22 lakh MT minerals between April 2010 and March 2017 from the lease areas.

The matter was brought to the notice of the Government (May 2016). The Government agreed (July 2016) that they had directed the Department to dispose pending applications for renewal of mining leases in Aravalli hills as according to them the ban had been imposed by the Hon'ble Supreme Court of India on renewal of 261 leases only.

This may be viewed in the context of the Hon'ble Supreme Court of India order of 19 February 2010 which stated that some mining leases in the State

¹³ Rajsamand-I, Rishabhdeo and Udaipur.

¹⁴ As per the status contained in the order (September 2008) of the SCI, 261 MLs includes 157 MLs where renewals became due after 16 December 2002 but renewals were not granted, 53 MLs where renewals were granted after 16 December 2002 and 51 MLs which were granted after 16 December 2002.

were renewed though this was not strictly permissible as per order passed on that date.

➤ The State Government extended (28 January 2011) the original lease period of existing minor mineral leases granted before 28 January 2011 from 20 years to 30 years.

During test check of the records of seven AME/ME offices¹⁵, it was also noticed that 50 leases spread over an area of 5,028.52 hectares in the Aravalli mountain range were due to expire between October 1996¹⁶ and March 2036¹⁷. However, the original lease period of these leases were extended and the lease period would now expire between March 2019 and March 2056. The State Government extended lease periods of all the mining leases without taking into consideration that the Hon'ble Supreme Court of India had imposed ban on mining operations in leases falling in the Aravalli hills.

During test check of mining leases it was seen that in eight operating leases in the jurisdiction of three ME¹⁸ offices, the lease holders excavated 38.23 lakh MT minerals during April 2010 to March 2017 causing degradation of environment in the Aravalli hills.

Thus, the State Government by extension of the lease period had to gone against the orders of the Hon'ble Supreme Court of India.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that no ban was imposed on extension of original lease period by the Hon'ble Supreme Court of India in its orders dated 16 December 2002 and 19 February 2010.

The reply has to be seen in light of the fact that mining was restrained in the Aravalli hills after 16 December 2002. By virtue of the extension period granted by the State Government, there would be continuance of mining operations in Aravalli hills even beyond the original lease period.

3.1.5.4 Irregular sanction of Environmental Clearance by the MoEF

The Hon'ble Supreme Court of India's order of October 2002, prohibiting and banning the mining activity in Aravalli hills from Haryana to Rajasthan was modified (16 December 2002) insofar as the State of Rajasthan was concerned to the following effect:

'Wherever requisite approvals/sanctions in the said State have been obtained under the Forest (Conservation) Act, 1980 and the Environment (Protection) Act, 1986 and the mining is not prohibited under the applicable Acts or

¹⁵ Alwar, Jaipur, Kotaputli, Neem Ka Thana, Rajsamand-I, Rajsamand-II and Udaipur.

¹⁶ In one case (ML 4/95), the lease was effective from 5 October 1976 to 4 October 1996 for 20 years. The lessee applied (22 September 1995) for renewal. However, renewal was not granted since the area of ML was falling in Aravalli hills. Thereafter, the lease period was extended by the AME Kotputli up to 4 October 2026 for fifty years as per the MM(DR) Amendment Act, 2015.

¹⁷ This includes two leases with original lease period of 30 years which was further extended to 50 years.

¹⁸ Rajsamand-I, Rajsamand-II and Udaipur.

notifications or orders of the Court, mining can continue and to such mining the aforesaid order will not apply’.

On scrutiny of the records of AME Kotputli, it was noticed that a mining lease (7/1992) near village *Buchara*, *tehsil* Kotputli, district Jaipur, spread over 37.64 hectares was effective for the period from 25 June 1996 to 24 June 2016 in favour of M/s Shri Modi Levigated Kaolin Private Limited, Neem Ka Thana. It was observed that the lessee had not obtained EC before 16 December 2002 from MoEF as required under EIA Notification dated 27 January 1994. The MoEF had directly enquired (November 2005) from the lease holder to confirm whether the lease area fell in the ambit of the order of the SCI dated 8 April 2005. The lease holder intimated (2 December 2005) the MoEF that the lease area did not fall in the Aravalli hills to the best of his knowledge. In response to the application (14 October 2005) of the lessee, the MoEF, thereafter, granted EC on 31 July 2006.

Examination of the files disclosed that the AME in response to a ‘Right to Information’ application had confirmed (8 October 2009) that the lease area was in the Aravalli hills. Further, on examination of the Geological Topographic Sheet, it was noticed that the difference in the contour of the lease area was more than 100 metres. The lessee had not obtained the EC before 16 December 2002 and the lease area fell in Aravalli hills. Thus, issue of EC by MoEF was irregular and the Department was required to stop the mining operations carried out by the lessee.

The lease holder excavated 4.67 lakh MT china clay and 0.05 lakh MT silica sand during 25 June 2010 to 31 March 2017 by misrepresenting facts to MoEF for which the EC granted was required to be cancelled as per paragraph 4 of the EIA notification (27 January 1994) which stipulates that concealing factual data or submission of false data or misleading information would lead to the project being rejected and approval, if granted earlier, on the basis of false data would also be revoked.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that no ban was imposed by the Hon’ble Supreme Court of India in its orders dated 16 December 2002, 08 April 2005 and 19 February 2010 on grant of EC by the MoEF. The reply is not acceptable as the lessee obtained EC from the MoEF on false representation of facts that the lease area did not fall in Aravalli hills. Further, the EC was granted after 16 December 2002.

The DMG stated in the exit conference (November 2016) that the matter would be examined.

➤ *The Department must strengthen its oversight and control over mining activities in and around areas banned for mining activities by the Hon’ble Supreme Court of India. Action must be taken against officers permitting mining in violation of court orders in the Aravalli hills.*

➤ *The leases granted and renewed in the banned areas need to be cancelled.*

3.1.6 Compliance with environmental conditions mentioned in Mining Plan, Environmental Clearance and Consent to Operate

The environmental impact of mining includes soil erosion, formation of sinkholes, loss of biodiversity and contamination of soil, ground water and surface water. In forested areas, mining may cause destruction and disturbance of ecosystems and in agricultural areas, it may disturb or destroy productive grazing and croplands. In urbanised environments, mining may produce noise pollution and air pollution. The Central and State Governments have prescribed strict environmental and rehabilitation conditions while approving Mining Plan (MP) and granting EC and CTO to ensure that the area mined is returned close to its original state by each lease holder.

Scrutiny of MP, EC and CTO of mining leases disclosed that there were certain provisions laid down under various regulations as depicted in *Appendix 3.2* which were to be met with reference to the following environmental issues;

Top Soil, Overburden dumps, Plantation, Air pollution control measures, Garland drains in the lease area, Noise pollution control measures, Reclamation and rehabilitation works and Mining in benches.

The following issues were noticed during audit:

3.1.6.1 Lack of focus on environmental issues related to mining activities

The Mines Department along with the RSPCB had to ensure that the lessee carried out mining as per the MP and the conditions specified in the EC and CTO. The scrutiny of records of selected AME/ME offices, disclosed that the Department had not prescribed any periodical return requiring the lease holder to furnish information regarding the observance of conditions related to environmental protection as prescribed in MP, EC and CTO except in the proforma of the monthly report which includes only the number of plantation done in the lease area. The concession and assessment files of selected 136 lease holders had records mainly pertaining to monthly returns of excavated mineral and assessments thereof. As a result, records of compliance with environmental provisions or lack of it were not available with the Mines Department.

The RSPCB also monitors compliance with all the conditions mentioned in the CTO through inspection reports for the lease holders. On scrutiny of records of selected 136 leases where 228 inspections were required to be conducted as per norms¹⁹ during 2011-15, it was found that the RSPCB had

¹⁹ As per the norms of inspections fixed (July 2011) for mining units by the RSPCB, the inspection was mandatory once in five years in case of manual mining units, once in two years for Semi-Mechanised mining units and once in a year for Mechanised mining units. Further, the operating manual of the RSPCB refixed (2015-16) the frequency of inspection. The RSPCB officials had to conduct inspection of mining units at least once in a year of mines having area more than 50 hectares; at least once in two years of mines having area between 5 and 50 hectares and need based inspection of mines having area less than 5 hectares.

conducted 50 inspections in 38 leases only during 2010-15. It was seen that only three inspections were conducted between 2015-17. Further, only three lease holders had submitted prescribed report and Annual Environmental Statement²⁰ on time. It was noticed that 106 lease holders had not submitted any return and 118 lease holders had not submitted the statement during the operative period of the CTO.

We, therefore, conducted a joint physical inspection of 136 mining leases in selected AME/ME offices to assess the compliance of provisions relating to protection of environment by the lease holders. The joint physical inspection covered the environmental issues stated above. The findings of joint physical inspection were also correlated with the inspection reports of the RSPCB.

3.1.6.2 Findings of joint physical inspection of mining leases

Top Soil

Top soil is the uppermost layer and is an essential component for land reclamation in mining areas. During the planning stage, the lessee has to submit an estimated quantity of the top soil, its storage area, location and details of subsequent utilisation.

During joint physical inspection of 136 leases, it was found that top soil was not stacked separately in 44 leases (32 *per cent*). Further, it could not be ascertained whether the top soil had been used as required or was mixed with the overburden. Hence, its retrieval in these leases was not possible for future use.

Overburden dumps

Overburden is the natural rock and soil that exists above and around the ore body. It is not subject to any chemical processes at the mine but needs to be removed to allow access to the ore. Overburden is often used at mine sites for landscape contouring and re-vegetation during mine closure.

On joint physical inspection of 136 mining leases, it was found that:

- In 53 leases (39 *per cent*), the overburden was found dumped in scattered manner within and outside lease area instead of dumping at earmarked site.
- The dump was found stacked without any retaining wall in 81 leases (60 *per cent*).

²⁰ As per Rule 14 of the Environment (Protection) Rules, 1986, every person carrying on an industry, operation or process requiring consent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 or under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 or both shall submit an environmental statement for the financial year ending 31 March in Form V to the RSPCB on or before 30 September every year.

Plantation

Each lessee has to plant trees based on his area of lease with each progressive year of mining so that phase wise restoration, reclamation and rehabilitation of land take place.

On joint physical inspection, it was found that:

- 80 lease holders who had to plant 13,800 saplings during 2010-11 to 2014-15 as per the circular, did not raise any plantation in their lease areas.
- 32 lease holders had planted approximately 1,38,100 plants as against 1,83,850 plants required.
- Remaining 24 lease holders claimed that plantation was done in areas other than the lease area like nearby boundaries of school, area available near temple, along roadside, crushers, *etc.* However, such plantations could not be ascertained in absence of any documentary proof.

Thus, there was lack of maintenance of ambient air quality around these leases and provisions laid down in the above rules were not complied with.

Construction of garland drain

Garland drain is constructed around mining pit and overburden dump to arrest flow of silt and sediments from soil, overburden and mineral dump.

During joint physical inspection of selected 136 mining leases, it was found that:

- 123 lease holders (90 *per cent*) had not constructed any garland drain around the mining pit in their lease areas contrary to the conditions laid down in the EC/CTO.

Air pollution control measures

During joint physical inspections of 136 leases, it was found that:

- No record regarding periodic monitoring of ambient air quality was maintained by operating 105 lease holders (77 *per cent*) at mining site.
- No water sprinkling had been carried out on haul roads as well as on loading points in 74 leases (54 *per cent*) on the day of inspection.
- No water sprinkling system was installed in any lease area except in one mining lease which was owned by a State Public Sector Undertaking. In the remaining leases, the water sprinkling was claimed to be done through water tankers. However, the lessees had no records in the lease area to show periodicity of water sprinkling.
- No record pertaining to air pollution control measures was available at 21 cancelled and two surrendered lease site during inspection.
- 112 lease holders did not have any equipment for checking ambient air quality at mining lease site on the day of inspection except lease no. 03/89 of the office of ME, Udaipur.

As such in absence of checking ambient air quality at mining lease site and non-availability of reports regarding air quality, the quantum of air pollutants in lease areas could not be ascertained.

Noise pollution control measures

Audit was unable to check the noise level in the selected 113 operating leases²¹ as the AME/ME offices did not have any equipment to test the noise level. It was noticed in audit that only seven lessees had noise monitoring reports. In absence of periodic noise monitoring reports, breaching of the permissible noise level in lease areas could not be ascertained.

Rehabilitation and reclamation of mined out pits

The objective of reclamation of mined out pits by the lessee is to initiate restoration, reclamation and rehabilitation of areas mined out in a phased manner so that the land is returned to an acceptable standard of productive use.

During joint physical inspection of 136 leases, it was found that:

- 23 lease holders out of the 24 operating leases checked and which had area of five or more hectares had not carried out phased reclamation or rehabilitation work of mined out pits in the lease area stating that it would be carried out after closure of mines. The remaining lease was of an underground mine (3/89). As such, these lease holders violated the rules as well as conditions laid down in EC/CTO.
- 89 lease holders having lease area less than five hectares had also not carried out reclamation work stating that rehabilitation and reclamation work would be carried out after closure of mines.

Mining in benches

Formation of benches is required for safety of workers as well as for free movement of vehicles and mineral to be dug out from pit. Mining in benches minimises the danger of material fall and accidents.

During joint physical inspection of 136 mining leases, it was noticed that:

- In 90 leases (66 *per cent*), mining operations were carried out without formation of benches. It was a clear violation of the mine regulations and no action was initiated against these lease holders by the concerned AME/ME.

²¹ 23 Cancelled/surrendered leases had been excluded as no record was available at mining site due to closure of mining operations.

Case study: Mining in benches



ML No. : 304/92
Mineral: Masonry Stone
Area : 1 hectare
Lease Period: 14 October 1993 to
13 October 2023
Location: Jaipur

Mining Plan

- Mining was proposed through formation of benches of average height (three to six metres) and width (7 to 65 metres).

Rajasthan Minor Mineral Concession Rules, 1986

- System of working in mining lease shall be performed by formation of benches;
- Such benches in mineral and overburden including weathered mineral shall be formed separately;
- The lessee shall maintain the bench height and slope as per the Metalliferous Mines Regulations, 1961 and maintain the overall slope of mine below 45 degrees.

Joint physical inspection conducted by audit

A joint physical inspection was conducted on 05 January 2016 and it was found that:

- Mining operations were carried out without formation of benches;
- Overall slope of mine was much more than prescribed slope.

A good example of properly formed benches



ML No. 06/89
M/s Hindustan Zinc Ltd.,
Maton Mines, Udaipur
Mineral : Rock Phosphate

3.1.6.3 Cross verification of the findings with 38 RSPCB inspection reports

The scrutiny of inspection reports of RSPCB regarding 38 leases disclosed variance in eight components of environmental issues *i.e.* Top Soil, Overburden dumps, Plantation, Garland drains in the lease area, Air pollution control measures, Noise pollution control measures, Reclamation and rehabilitation works and Mining in benches.

There was a variation in reporting of the RSPCB in respect of following environmental issues:

- Availability of top soil in lease area and storage thereof.
- Dumping of overburden dumps at earmarked site in lease area and stabilisation of overburden dumps through vegetation.
- Plantation was not done by lease holders in their leased area as per prescribed norms and misreporting thereof.
- Excavation of mineral was being carried out without development of benches in lease area *etc.*

These are discussed in **Appendix 3.3**

3.1.6.4 Action taken

The matter was brought to the notice of the Government (May 2016) and the RSPCB (May 2016). The Government replied (July 2016) that directions had been issued to the concerned ME/AME offices for issuing notices to lease holders who had not stacked top soil separately and overburden at earmarked place, where plantation was not done as per norms, garland drains were not constructed, reclamation and rehabilitation of mined out pits was not done and where benches were not formed even after joint inspection. The Government replied that reports may be obtained from the RSPCB regarding air and noise pollution control measures. The RSPCB replied (October 2016) that show-cause notices had been issued to the non-compliant mining lessees by the concerned ROs.

The Secretary, Mines and Petroleum and Chairperson of the RSPCB stated in the exit conference (November 2016) that there had been violation of Rules and added that it was not feasible for the Board to monitor each and every mine due to shortage of manpower. Member Secretary, RSPCB stated that the Board was going to monitor the mines through Global Positioning System. It was also stated by the Secretary that adequate plantation was not being done by the lessees. Further, DMG stated that it was not feasible for the lessees to plant trees in and nearby lease area due to rocky terrain and, therefore, saplings were planted in nearby road, school, *etc.* in clusters. The reply is not acceptable as plantation had to be done as per the conditions mentioned in EC/CTO/Mining Plan and it must be clearly verifiable.

The Department and RSPCB may strengthen its monitoring mechanism related to fulfillment of environmental conditions prescribed in MP, EC and

CTO through periodical returns/frequent inspections for the lease holders seeking status on the observance of the prescribed conditions.

3.1.7 Management of Funds relating to Environment Protection

The State Government received financial assurance amount as surety for site rehabilitation, post closure monitoring and maintenance of mining project; levied Environment and Health cess which was to be utilised for protection of environment and health in mining areas and collected contribution to Environment Management Fund for carrying out environment protection works. The following irregularities were noticed: -

3.1.7.1 Financial assurance

The amount of surety to be deposited is computed based on the area put to use for mining and allied activities. The amount of financial assurance for mines is as under:

Major minerals As per rule 23(F) of the Mineral Conservation and Development Rules, 1988		Minor minerals As per Rule 37(J) of the RMMC Rules 1986 (inserted on 19 June 2012)
A ²² category mines per hectare (in ₹)	B category mines per hectare(in ₹)	Per hectare and part thereof(in ₹)
25,000	15,000	15,000
<i>The minimum amount of Financial Assurance to be furnished in the form of letter of credit from any scheduled bank should be ₹ two lakh for 'A' category mines and ₹ one lakh for 'B' category mines. Maximum amount of Financial Assurance for minor minerals is ₹ 30 lakh</i>		

On scrutiny of records of selected 288 mining leases of AME/ME offices, it was found that four lease holders having an area of 17.82 hectares had not deposited ₹ 0.60 lakh towards financial assurance.

Further, on scrutiny of selected 35 cancelled/surrendered leases, it was noticed that:

- 20 lessees having an area of 29.69 hectares whose mining leases had been cancelled/ surrendered had not deposited the financial assurance amount of ₹ 3.00 lakh. The burden of restoration of these leases, therefore, would have to be borne from the State exchequer.
- No restoration works were carried out by the concerned AME/MEs in six cancelled leases wherein the financial assurance amount of ₹ 3.45 lakh had been deposited by the lessees. This was not utilised in absence of clear directions for utilisation of funds.

The DMG stated in the exit conference (November 2016) that the amount would be utilised for restoration of mined out pits in leased area.

²²'A' category mines means fully mechanised mines where the work is being carried out by deployment of heavy mining machinery for deep hole drilling, excavation, loading and transport or such mines where the number of average employment exceeds 150 in all. Category 'B' mines means mines other than category 'A' mines.

3.1.7.2 Environment and Health Cess

The State Government levied 'Environment and Health Cess' in 2008 on selected major minerals. The proceeds of the cess were to be utilised for protection of environment and health and maintenance of ecological balance especially in mining areas of the State. The rates of environment and health cess for collection of proceeds were prescribed and effective since 1 April 2008 and the rates were revised from time to time.

The State Government collected cess of ₹ 544.48 crore from the lease holders of selected major minerals during 2008-09 to 2016-17. Thereafter, the State Government rescinded the collection of cess vide notification dated 6 January 2017.

The State Government constituted (24 December 2010) Rajasthan Environment and Health Administrative Board (REHAB) for effective management of funds. It was noticed that the Cess became effective from 1 April 2008 but the REHAB was not constituted till 23 December 2010. As a result, no fund was used during 2008-09 to 2010-11. Further, only ₹ 140.53 crore (25.81 per cent) of the fund was utilised during 2011-12 to 2016-17.

On scrutiny of the minutes of the twelve REHAB meetings which took place between January 2011 and January 2017, it was noticed that:

➤ The Board sanctioned funds for activities which were not related to the objectives prescribed under the Environment and Health Cess as stipulated in the Rajasthan Finance Act, 2008 and Rules made thereunder. The Board also admitted in its seventh and ninth meetings held on 7 April 2014 and 23 December 2014 respectively that some sanctions issued for incurring expenditure from cess amount were not in consonance with the objectives of the Act. Objectives of the Act such as the shifting of Makrana-Parbatsar railway line and payment of cost of land thereof and computerisation at DMG office.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that all the expenditure was incurred after scrutiny of the proposals by the Board members and decision taken in the Board meetings. The reply is not acceptable as the expenditure incurred on the items discussed above was contrary to the objectives of the Environment and Health Cess. The Board had also admitted in its meetings that some sanctions issued were not in consonance with the objectives of the Act. The Joint Secretary, Mines stated in the exit conference (November 2016) that unspent balance of fund would be utilised on the objectives for which the fund was collected.

3.1.7.3 Environment Management Fund

A separate Environment Management Fund (EMF) was created by the State Government under Rule 37 T (5) of the RMMC Rules, 1986 inserted vide notification dated 19 June 2012 to meet the financial requirement for carrying out environment protection works as per environment management plan.

➤ EMF was to be allotted by District Level Environment Committee for environment development work, to the concerned association of cluster or to the agency to which such work was assigned. The Hon'ble Rajasthan High Court in the D.B. Civil Writ Petition No. 11584/2013 declared (9 April 2015) collection of EMF illegal until the final decision of the Hon'ble Supreme Court of India. In compliance with the direction of the Hon'ble Rajasthan High Court, DMG postponed the collection of EMF with immediate effect on 05 May 2015. It was noticed that a sum of ₹ 295.03 crore was collected on account of EMF by the Department. However, no amount was utilised for carrying out environment protection works as the DMG did not prepare any guidelines for incurring expenditure.

The matter was brought to the notice of the Government (May 2016). The Government replied (July 2016) that DMG had requested the State Government for allocation of funds of ₹ 14 crore under EMF to the subordinate offices for plantation.

DMG stated in the exit conference (November 2016) that the amount would be utilised after preparation of guidelines.

➤ *The Department may ensure collection of the financial assurance amount from the lease holders and wherever lease holder fails to undertake reclamation and rehabilitation measures, the financial assurance amount collected must be judiciously utilised in the mined out area.*

➤ *The Cess amount must be spent only on those purposes which meet the objectives for which the Cess had been imposed by the Government.*

3.1.8 Conclusion

We observed that mineral production was enhanced without obtaining the EC and mines were operated without renewing the lapsed CTO. There was excess excavation of minerals by the lease holders in violation of conditions attached with CTO.

We observed that illegal mining activities were rampant in the State. There were inadequacies in preventive measures as well as in follow up of the illegal mining cases detected. There was lack of deterrence due to delay in issue of notices raising demand and recovery of the penal amount from illegal miners. Also, there was slackness in implementation of the policy measures enunciated in 2011 for curbing illegal mining.

We noticed serious violations of the orders of the Hon'ble Supreme Court of India as mining leases falling in Aravalli mountain range were granted, renewed and extended. Besides, the MoEF also granted EC for mining lease despite the area falling in Aravalli hills.

We observed that environmental issues related to mining activities were not accorded proper attention by the Department and RSPCB. The Department had not prescribed any periodical return requiring the lease holders to furnish information regarding the observance of conditions related with environmental protection as prescribed in MP, EC and CTO. The inspection reports of the Department also did not focus on any environmental issues. Out of 136 leases of selected AME/ME offices, we observed that the RSPCB had

conducted inspections in 38 leases only during 2010-17. Further, 106 lease holders had not submitted any reports and 118 lease holders had not submitted the Annual Environment Statement during the operative period of the CTO. Further, the inspection reports were incomplete, incorrect and unreliable as was ascertained through comparison of the findings of joint physical inspection and the RSPCB inspection reports. The physical inspections revealed serious deficiencies and apathy towards fulfilment of environmental conditions relating to top soil, overburden dumps, plantation, construction of garland drain, air pollution control measures, noise pollution control measures, reclamation and rehabilitation measures and mining in benches.

We noticed that the mandatory financial assurance amount was not recovered from four lease holders and 20 lease holders whose leases were cancelled/surrendered. The deposited amount of financial assurance from six lease holders could not be spent in absence of clear directions. Further, only 25.81 per cent of the 'Environment and Health Cess' was spent during 2011-17. Funds were sanctioned for works that did not meet the objectives for which the Cess was collected. The Department also collected 'Environment Management Fund ₹ 295.03 crore but the same could not be utilised in absence of any guidelines.

Forest Department

3.2 Development of water catchment through greening of Rajasthan

3.2.1 Introduction

A project 'Development of Water Catchment through Greening of Rajasthan' for rehabilitation of degraded forest was planned by the State Government. The National Bank for Agriculture and Rural Development (NABARD) sanctioned loan for the project. It was planned to treat about 1,59,000 hectares of degraded forest land at a project cost of ₹ 988.56 crore. The Phase-I of the project having a total cost of ₹ 336.66 crore envisaged treatment of 52,750 hectares of degraded land during the period 2012-13 to 2016-17. According to project guidelines, implementation of the project was to be done through a memorandum of understanding (MoU) between forest department and village forest protection/management committee (VFPMC). The project was carried out in selected 17 districts²³ out of total 33 districts.

During the implementation and execution of phase-I of the project 2012-13 to 2016-17, budget allotment of ₹ 311.38 crore was made and ₹ 289.61 crore spent on different activities of the project. The activity-wise physical targets and achievements during 2012-13 to 2016-17 are given in *Appendix-3.4*.

3.2.2 Audit Coverage and Methodology

The audit of records was conducted in the offices of the Principal Chief Conservator of Forest (PCCF); Head of Forest Force (HoFF); Deputy Conservator of Forest (DCF) NABARD; Finance Department (Expenditure Division) of GoR, Additional PCCF (Development/Monitoring/Project Formulation/NABARD) and seven divisions²⁴ headed by DCFs, selected out of 29 divisions by adopting stratified random sampling method, covering the period from 2012-13 to 2016-17. Apart from this, joint physical inspection of selected sites was also conducted with the Departmental officers to verify the works executed. The audit was conducted to assess whether the various activities were executed effectively and the required monitoring and evaluation were done.

Audit Findings

3.2.3 Preparation of micro-plans

The project guidelines provided that right from the beginning, need based and area specific micro plans taking a village as a unit of development would be prepared through Participatory Rural Appraisal. The micro plans prepared would be discussed in Village Forest Protection/Management Committee

²³ Ajmer, Alwar, Baran, Bundi, Bharatpur, Chittorgarh, Dausa, Dholpur, Jhalawar, Karauli, Kota, Pratapgarh, Rajsamand, Sawai Madhopur, Sirohi, Tonk and Udaipur.

²⁴ Ajmer, Bharatpur, Bundi, Kota, (WL) MNP Kota, Pratapgarh and Rajsamand.

(VFPMC)²⁵ meetings and would be approved by the concerned DFOs. The micro plan once prepared would be valid for a period of five years. However, the micro plan would be reviewed after two years. During scrutiny of records of selected divisions following points noticed by the audit:

- 172 micro plans were prepared in selected divisions out of which the dates of approval of 12 micro plans²⁶ were not submitted to audit by the concerned DFOs. The expenditure on the concerned projects was ₹ 3.37 crore²⁷.
- In 145 cases micro plans were not reviewed after two years.
- In five cases in DCF (WL) MNP, Kota the works were executed before approval (March 2016) of the micro plans.
- In case of DCFs Ajmer and Bundi it was revealed that in 19 cases²⁸ the dates of approval of micro plans were preceded the date of the registration of relevant VFPMCs.

Targets were set for construction of different types of soil and water conservation structures. However, survey reports in support of site suitability and selection of type of structures were not available.

3.2.4 Afforestation

3.2.4.1 Lack of categorization of land for afforestation

Phase-I of the project envisaged treatment of 52,750 hectares of degraded land. As per project guidelines, degraded land was to be categorized under Rehabilitation of Degraded Forest-I (RDF-I), II (RDF-II), Assisted Natural Regeneration (ANR) and *Panchayat* land plantation (PLP) on the basis of availability of tree cover in the specific areas.

At the time of scrutiny of records of selected divisions, it was seen that categorization of land into aforesaid categories (*viz.* RDF-I, RDF-II and ANR) for afforestation was not done at the planning stage. The details of such categorization were neither available in the project report nor submitted to audit in absence of which correctness and authenticity of categorization of degraded forest land could not be ascertained.

3.2.4.2 Non adherence to technical parameters

- Assisted Natural Regeneration works were executed at 19 sites pertaining to five divisions²⁹ at an expenditure of ₹ 2.47 crore³⁰. An essential item required to ensure proper growth of plantation *i.e.* 'singling and

²⁵ According to provisions made in forest manual (Government of Rajasthan), Deputy Conservator of Forests or equivalent officer will register these committees.

²⁶ DCF Bharatpur : 4 and Rajsamand : 8

²⁷ DCF Rajsamand : ₹ 2.88 crore and DCF Bharatpur : ₹ 0.49 crore

²⁸ DCF Ajmer : 2, Bundi : 17

²⁹ DCF Bharatpur, Bundi, (WL) MNP, Kota, Pratapgarh, Rajsamand

³⁰ DCFs Bharatpur : ₹ 25.93 lakh; Bundi : ₹ 78.35 lakh; (WL) MNP, Kota: ₹ 12.52 lakh; Pratapgarh ₹ 101.19 lakh; Rajsamand : ₹ 29.42 lakh.

tending³¹ included as item number 4 in model estimates was neither undertaken nor any technical reason for not undertaking the activity was provided. It was also noticed that the required sanction from the next higher authority was not obtained for deviation from the model estimate. The availability of necessary root stock on ANR sites could not be ensured and the purpose of singling and tending was defeated.

➤ Seed testing is essential to ensure increase in forestry yield and protection from the threats of diseases and pests. As per orders of the PCCF the samples of seed should be sent for testing necessarily before purchase. The seed germination test of collected seed was necessary and the payment in respect of seed purchase was to be made only after quality testing of the purchased/collected seed. Scrutiny of records revealed that in seven divisions, sub-standard seed amounting to ₹ 6.74 lakh and un-certified seed (without laboratory test) worth ₹ 17.08 lakh were distributed to the Range offices from the Divisional Offices (**Appendix-3.5**). In response to audit query, DCF, Ajmer stated (March 2017) that range officers have been directed to ensure compliance of the aforesaid orders of the Van Vardhan Adhikari. The DCF, Pratapgarh stated that in view of limited time frame for completion of plantation work, seed germination tests could not be done. Replies of DCFs Kota, Rajsamand, Bundi, Bharatpur and (WL) MNP, Kota were awaited.

➤ The PCCF issued orders (October 2002) specifying that no work should be initiated without sanction of technical estimates. The proposals for development work relating to plantation should invariably consist of detailed technical note, map and estimates. Scrutiny of records revealed that in three divisions³², in case of 29 sites³³ relating to RDF-I, RDF-II and ANR the plantation work commenced and payment was made prior to issuance of technical sanctions (**Appendix-3.6**). The commencement of plantation work prior to issuance of technical sanctions in aforesaid cases was irregular and contrary to the instructions issued by the PCCF.

➤ As per Department of Forest, GoR, plants of size of 1 metre to 1.5 metre and age of one and half years are treated as matured for plantation. Scrutiny of records and information provided by the Department revealed that in DCF, Bundi at site Soran-A under RDF-I, immature plants only five months old were planted. Similarly, in DCF, Pratapgarh, plants between 4 and 7 months of age were planted at site Panighatta under RDF-II, Nayan Badlikhera-III under RDF-I and Khankudi and Chitrimata under Assisted Natural Regeneration. In case of DCF, Bharatpur, at eight sites³⁴, plants between 5 and 7 months old were planted. The department incurred an expenditure of ₹ 2.26 crore (DCFs Bundi : ₹ 26.94 lakh; Pratapgarh : ₹ 75.65 lakh; Bharatpur : ₹ 123.53 lakh) on the plantation of immature plants. Immature plants have high chance of mortality and are vulnerable to grazing. In response to audit

³¹ Singling means removal of multiple stems and tending means removal of unnecessary saplings. These operations are required to reduce root competition and transpiration water loss and improve light conditions.

³² DCF (WL) MNP, Kota, Pratapgarh, Rajsamand

³³ DCF (WL) MNP, Kota : 2, DCFs Rajsamand : 19, Pratapgarh : 8

³⁴ RDF-I: Bilond, RDF-II: Kankachal, Gogera-I, Bolkhera, Kankachal-II, ANR: Mansapurar, Matiya pahar, PLP: Rajpura-II

query the department intimated mortality rates of these plants viz. DCF, Bundi : (1 site) 15 *per cent*; Pratapgarh : (4 sites) 30 to 48 *per cent* and Bharatpur : (8 sites) 40 to 50 *per cent*. No evaluation was conducted to determine the cause of such high mortality rates.

3.2.5 Soil and Water Conservation Structures

3.2.5.1 Work of construction of soil and water conservation structures deviated from micro plans

During scrutiny of records of selected divisions³⁵, we found cases of deviation from micro plans. It was seen that instead of the initially proposed 33 works amounting to ₹ 2.14 crore at specified locations, divisions executed 28 works amounting to ₹ 1.21 crore at locations other than the originally proposed areas. The implementation of the project works, therefore, was not done in accordance with the relevant micro plans. The details of such works have been depicted in the *Appendix-3.7*.

3.2.5.2 Construction of soil and water conservation structures without obtaining sanction from the committee constituted

For proper planning of schemes based on micro watershed, Administrative Reforms Department (GoR) constituted a State level coordination committee (August 2011). The committee consisted of representatives of various departments including Forest Department. No project would be considered for sanction without the clearance from the committee. Water Resources Department also clarified that before construction of *anicuts*/water harvesting structures/check dam, consent of the committee would be necessary to decide height and capacity of the structures (June 2012).

Scrutiny of records of selected divisions revealed that 419 check dams, 56 *anicuts* of type-II, 29 *anicuts* of type-III and 76 water harvesting structures involving expenditure of ₹ 8.87 crore were constructed in seven divisions without obtaining consent from the Committee (*Appendix-3.8*).

In response to audit query DCF, Kota stated (February 2017) that height of constructed structures was less than 2-meter and these were constructed for ‘conservation of soil’ in place of ‘water conservation’; DCF (WL) MNP, Kota also stated (May 2017) that constructed structures were less than 2-meter high and were not lying within catchment area of any reservoir. Thus the permission of the committee was not required.

The Department’s plea regarding the two meters height of constructed structures was not relevant because the Forest Department in its own orders had already clarified that regardless of height of structures permission from aforesaid committee was to be obtained. Further, department also replied that construction was in view of conservation of soil in place of water conservation. This is also not tenable because construction of check dam,

³⁵ DCF Bharatpur, Bundi, Kota, DCF (WL) MNP Kota, Pratapgarh, Rajsamand

anicut II, *anicut* III and Water Harvesting Structure were part of package number three and related to soil and moisture conservation.

3.2.6 Joint Forest Management Activities

For 'Joint Forest Management' village-wise VFPMCs were to be constituted. The DCF or equivalent officer would register this committee and the VFPMC would maintain an updated membership register. At least 33 *per cent* members of the VFPMC would be women. In addition to this, women sub-committee would be constituted and at least one key official in the executive committee would be a woman. The tenure of the executive committee would be two years and fresh election would be held after expiry of this period. The VFPMC would hold at least two general meetings every year and the Range Officer of the area and other senior officers of the Forest Department may inspect the records related to the revenue of VFPMC.

Out of 183 VFPMCs constituted in selected divisions, it was observed that:

- During 2012-13 to 2016-17, ₹ 30.99 lakh was allocated to 41 VFPMCs under Joint Forest Management Activities in order to conduct income generating activities through Self Help Groups (SHGs). It was observed that the funds allocated to VFPMCs were not disbursed to SHGs due to which income generating activities were not carried out. It was also observed that the department did not take proper action to recover the blocked funds.
- In 28³⁶ out of 53 cases (DCFs Bundi : 37 and Kota : 16) the total number of women members was less than the prescribed number of women to be included in the VFPMC. In 16 cases³⁷, the women's sub-committees were not constituted or there were no woman representative in the committees. As a result, the involvement of women in JFM activities could not be ensured.
- In all 183 cases, dates of elections held after completion of tenure of executives committees were not made available.
- Further, two general meetings required to be conducted in each year as provided in guidelines were not held.
- Inspection of records of all 183 VFPMCs was not done by the departmental authorities and audit of the same was not conducted due to which irregularities and shortcomings could not be detected.

3.2.7 Convergence through MGNREGS

Package number eight *i.e.* 'Convergence through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)' had a provision of ₹ 37.36 crore for coverage of 1000 hectares land by construction of *pucca* stone wall fencing of vulnerable forest and wild life area. Scrutiny of records of the selected divisions³⁸ revealed that the area susceptible to encroachment was neither identified nor were the targets for construction of *pucca* stone wall

³⁶ DCF Bundi : 15, Kota : 10, MNP Kota 03

³⁷ DCF Ajmer : 4, Bharatpur : 6, Pratapgarh : 2, Rajsamand : 4

³⁸ DCF Ajmer, Bharatpur, Bundi, Kota, (WL) MNP Kota, Pratapgarh, Rajsamand

fencing achieved. Scrutiny of information provided by the department disclosed that the targets for construction of *pucca* wall fencing increased to 4900 hectares (390 *per cent*) with a decrease in financial targets to ₹ 19.63 crore (52.54 *per cent*). However, no expenditure was incurred on the package.

The department replied (June 2017) that *pucca* wall fencing was not permissible in MGNREGS. Thus, despite non-admissibility of the construction of *pucca* wall in the scheme this component was included in the project as a separate package.

3.2.8 Monitoring and Evaluation

As per the project guidelines, the DCF, Planning and Monitoring would evaluate randomly selected works in randomly selected divisions every year as per norms. One work would be completely evaluated and the remaining works would be partially (equivalent to 10 *per cent* of the area) evaluated. In case, major deviations were found then those works would also be evaluated.

Scrutiny of Monitoring and Evaluation Reports of DCF, Planning and Monitoring, revealed that in five divisions³⁹, only the afforestation package was evaluated. The evaluation reports indicated shortcomings in implementation of project works like lack of cut-back work of natural plants, ineffective fencing, digging of undersized pits, grazing by domesticated as well as wild animals, unsatisfactory condition of natural grass in the area and lack of medicinal seed sowing on V-ditches.

Action taken reports on the shortcomings were neither found on record nor submitted to audit by three divisions⁴⁰. Besides, monitoring and evaluation work of DCF (WL) MNP, Kota was not conducted due to which implementation of project works remained un-monitored and un-evaluated. In case of DCF, Bharatpur monitoring and evaluation reports not submitted to audit thus the same remained un-reviewed by the audit.

As per the guidelines, external agencies appointed by PCCF will carry out evaluation of 10 *per cent* project divisions after three years.

It was noticed that in absence of appointment of external agencies by PCCF, the evaluation work in 10 *per cent* of project divisions which was to be conducted after three years could not be done.

The matter was referred (July 2017) to State Government, the reply was awaited.

3.2.9 Conclusion

The basis for categorization of degraded forest land and identification of location and types of soil and water conservation structures at the planning stage of the project could not be verified in absence of records and survey reports. There were shortcomings in preparation of the micro plans besides deviations in respect of construction of soil and water conservation structures.

³⁹ Ajmer, Bundi, Kota, Pratapgarh, Rajsamand.

⁴⁰ Bundi, Kota, Rajsamand.

Similarly, there were instances of purchase/collection and utilization of un-certified seeds and non-adherence to project guidelines in respect of agro-forestry and joint forest management activity packages.

The norms prescribed for monitoring and evaluation by internal agencies were not adhered to and external agencies were not appointed for project evaluation.

Public Works Department

3.3 Implementation of Rajasthan Road Sector Modernization Project

3.3.1 Introduction

The State Government decided (2012-13) to connect all villages having population between 250 and 499 (Census 2001) with all-weather bituminous roads in a phased manner in the areas of the state not covered by *Pradhan Mantri Gram Sadak Yojana* (PMGSY). To achieve this, the Rajasthan Road Sector Modernization Project (RRSMP) was launched by GoR in 2013-14. The project had three main components *i.e.* improvement in rural connectivity, strengthening of road sector management and enhancement in road safety.

The project is financed by the World Bank and the State Government in the ratio of 70:30. The total project cost is ₹ 1362 crore. The objective of the first component 'Rural Connectivity Improvement' was to support construction of about 2500 kilometer rural roads for providing connectivity to about 1300 revenue villages with population of 250-499. The second component included 'Road sector modernization and performance enhancement' for rural road sector modernization plan. The third component, 'Road safety management' has the objective of reducing the number of fatalities and serious injuries from traffic accidents.

3.3.2 Status of project

The starting and closing dates of the project were 10 March 2014 and 31 December 2018 respectively. An expenditure of ₹ 951.76 crore was incurred on the project between 2013 and 2017 against an allocation of ₹ 1156.86 crore. Under component A- Rural connectivity improvement, road connectivity was to be provided to 1056 villages through construction of 2521 kilometers of roads. It was seen that 2225 km roads were constructed upto March 2017 and 990 villages were connected.

The second component included three key areas *viz.* sustainable asset management; improved policy framework; modernization of engineering practices and business procedures. It was seen that sustainable Road Assets Management System (RAMS) was to be implemented by 30 January 2017 in two phases. However, first phase of designing the system of RAMS was incomplete (March 2017) as a result, second phase could not be taken up. Similarly, in case of works related to safe corridor demonstration programme of third component 'Road safety management' only final report on proposed demo corridor and safer road investment plans was completed and other works were in progress.

3.3.3 Scope and Methodology

The audit of RRSMP for the period 2013-14 to 2016-17 was conducted through scrutiny of records available in the offices of the Chief Engineer (CE) (PMGSY), Public Works Department (PWD), Rajasthan, Jaipur and 18 divisions⁴¹ selected out of 74 divisions by adopting stratified random sampling method⁴². The test checked divisions executed 417 road works covered in 137 packages.

Audit findings

Component A- Rural Connectivity Improvement

3.3.4 Planning

3.3.4.1 Lack of data for planning

➤ One of the objectives of the programme was to provide all weather road connectivity to all villages not covered under PMGSY having population between 250 and 499. PAD⁴³ had taken into account 7357 such villages which had population below 500 as of October 2013. As a result of reconciliation done (November 2015) by State Government, the number of unconnected habitations⁴⁴ having population between 250 and 499 shown on OMMAS⁴⁵ increased by 1571. The Department, however, did not supply the details of villages to be provided connectivity *vis-a-vis* those already covered/to be covered under other schemes to audit as of March 2017. It was seen that 1056 villages were selected for connectivity under RRSMP and 1500 villages were proposed for coverage under National Bank for Agriculture and Rural Development (NABARD). The information regarding remaining 4801 villages⁴⁶ was not intimated. Besides this, the department did not provide the information regarding road connectivity of villages increased due to increase of habitations by 1571.

In absence of reliable data it could not be ascertained whether all villages having population between 250 and 499 were taken into account during planning for providing connectivity with all-weather bituminous roads.

➤ As per PAD, the Project Management Consultant (PMC) was required to help PWD in preparation of Operation Manual which would detail the

⁴¹ Executive Engineer, PWD Division, Abu Road, Alwar-II, Beawar, Bhilwara, Bundi (World Bank), Chaumahla, Chhabra, Chittorgarh (WB), Dausa, City Division Jaipur, Distt.Dn.Jaipur, Malpura, Nimbahera, Rajsamand (WB), Sawai Madhopur (WB), Sikandra, Sriganganagar, Suratgarh.

⁴² The stratified random sampling method is a technique which attempts to restrict the possible samples to those which are 'less extreme' by ensuring that all parts of the population are represented in the sample in order to increase the efficiency of the methodology.

⁴³ Project Appraisal Document prepared by world bank basis on which loan was sanctioned.

⁴⁴ A habitation is cluster of population, living in an area, the location of which does not change over time. Several habitations make a village.

⁴⁵ Online Monitoring, Management and Accounting System.

⁴⁶ 7357-(1056+1500)

implementation arrangement for various project components, including project monitoring, fund flow and management of social and environmental aspects.

During scrutiny of records of CE (PMGSY), it was observed that the Operation Manual was not prepared for the project by PWD.

The CE, PWD, Rajasthan, Jaipur stated that PAD was not a legal document and it was not binding upon the borrower to prepare the Operation Manual. However, the State Government replied (September 2017) that PMC has been directed to prepare the Operation Manual within one month.

3.3.4.2 Non-availability of clear site

As per rule 351 of Public Works Financial and Accounts Rules (PWF&AR), no work should be commenced on land which has not been duly made over by the responsible civil officer.

Test check of the selected divisions revealed following issues:

➤ In Abu Road division, one road from Vasa to Kedar Padar⁴⁷ (km 0/0 to 3/400) was sanctioned but the road work was not constructed from chainage km 0/383 to 0/833 and 3/010 to 3/400 due to land dispute. In absence of this, the purpose of all weather road connectivity was not fulfilled even after incurring an expenditure of ₹ 1.54 crore.

➤ In Sawai Madhopur (WB) Division, one road from Khandar-Baler to Parsipura⁴⁸ (4.13 km) was sanctioned for ₹ 1.86 crore but due to lack of clearance of forest land (690 meters) from the Forest Department, the road remained incomplete and objective of road connectivity was not fulfilled even after incurring an expenditure of ₹ 60.44 lakh.

On this being pointed out (May 2017) by audit the State Government stated (September 2017) that to save time works were started and the process for obtaining forest clearance was taken up simultaneously. During preparation of Detailed Project Report, transect walk was carried out by PWD Officers, *Sarpanch* and others in which the status of land, forest, *etc.* were looked into. The response indicates that the transect walk was not conducted properly.

The issue of inadequate survey was noticed in 11 road works of eight districts with a total length of 20.08 km (**Appendix-3.9**). These works were proposed for de-sanction later due to factors like location in submergence area of dam, double connectivity, land dispute or existence of roads constructed under other schemes.

The State Government accepted (September 2017) the facts and stated that show cause notices have been issued to the concerned Project Implementation Units (PIUs) to explain reasons for negligence and avoid such mistakes in future.

⁴⁷ Package No. RJ-29-WB-RRSMP-01

⁴⁸ Package No. RJ-27-WB-RRSMP-09

3.3.5 Implementation

3.3.5.1 Expenditure incurred without revised administrative sanction and tenders invited before issuance of technical sanction

The PWF&AR states that when expenditure on a work exceeds or is likely to exceed the amount administratively approved by more than 10 *per cent*, or where there are material deviations from the original proposals, revised administrative approval must be obtained from the authority competent to approve the cost.

During scrutiny of records of Beawar and Nimbahera divisions, it was found that in three packages (seven road works) the expenditure incurred was ₹ 5.66 crores. This exceeded the administrative sanction by 23.3 *per cent*. However, no such revised sanction was obtained.

The State Government replied (September 2017) that all the PIU's had been directed to send the proposals for revised administrative and financial sanctions and not to execute further works without permission.

In six packages (13 road works) of four divisions⁴⁹, tenders were invited before issuance of technical sanctions (*Appendix-3.10*). This was contrary to the rule mentioned in PWF&AR.

The State Government replied (September 2017) that the tenders were called at Chief Engineer Level for minimizing NIT expenditure as well as saving of time due to urgency of work. The reply is not acceptable as it was against the provisions of PWF&AR.

3.3.5.2 Undue benefit to contractors

The General Conditions of Contract (GCC) specify that:

- the contract price shall be adjusted for increase or decrease in rates of labour, material, fuel and lubricants and other inputs in accordance with the formula given in the contract data. In case of use of cement, rate of grey cement and in case of use of steel, rate of steel rebar would be applied. In case of bitumen, selling price of bitumen discharged from refinery would be taken for calculating the price adjustment. On scrutiny of records of selected divisions, we found a number of deviations from the terms of the GCC as brought out below:
- In Nimbahera division, in one package (three road works), the contractor was paid excess price adjustment because of adoption of base index of March 2013 instead of August 2013, the month in which bids were opened. Further, the price adjustment on steel rods was claimed instead of steel rebar.
- In Dausa division, in one package (five road works), the rates of cement, slate and graphite products were taken in place of grey cement.
- In four packages (16 road works) of Chhabra division, price adjustment bills were paid taking selling price of bitumen including entry tax.

⁴⁹ Abu Road, Alwar-II, Chaumahla and Sawai Madhopur (WB).

- In five packages (19 road works) of Suratgarh division, weightage for each of the factors of cost stated in table(s) of adjustment data were changed by corrigendum issued by Executive Engineer, which was against the provisions of clause 47.1(g).
- In Sikandra division, in one package (five road works) rates of bitumen were taken on 16th day of the month instead of on the 1st day of the month, base date for bitumen was taken as June 2013 instead of August 2013 and rates of steel rod were taken instead of rebars. This resulted in excess payment of price adjustment of ₹ 67.45 lakh (**Appendix-3.11**).

The State Government replied (September 2017) that the Executive Engineer in-charge of the divisions have been directed to recover the excess payments from the contractors on account of price adjustment.

- the contractor has to supply Operating and Maintenance Manual within 28 days of the issue of certificate of completion of whole or section of the work. Otherwise one *per cent* of the contract value not exceeding ₹ three lakh would be withheld. During scrutiny of records of selected divisions, in nine divisions⁵⁰, it was found that Operation and Maintenance Manual was not submitted by the contractors after completion of works and no record related to maintenance of roads was provided to audit. In absence of submission of manual and records relating to maintenance, it could not be ensured whether the activities like restoration of rain cuts, maintenance of culverts and causeways, making up of shoulders, *etc.* were executed. Besides the department did not withhold ₹ 2.02 crore on this account resulting in undue benefit to the contractors (**Appendix-3.12**).

The State Government replied (September 2017) that all the PIUs have been directed to ensure submission of Operating and Maintenance Manual by the contractors.

- within 14 days of delivery of the letter of acceptance, the contractor shall submit to the Project Manager a revised work programme including environmental management plan. He would update the work programme at intervals of 30 days. Otherwise an amount of ₹ 5 lakh could be withheld. In 136 packages⁵¹ (416 roads) of selected divisions, the contractors neither submitted the revised work programme within 14 days after the date of letter of acceptance nor submitted the updated work programme before completion of the work. The department did not withhold the amount of ₹ 6.80 crore from the bills which resulted in undue benefit to the contractors (**Appendix-3.13**).

The State Government replied (September 2017) that the concerned PIUs have been directed to withhold amount of ₹ 5.00 lakh wherever the updated work programme was not submitted.

- the contractor has to provide insurance cover to the road from the date of start of the works to the end of defect liability period of five years. If the

⁵⁰ Alwar-II, Chaumahla, Chittorgarh (WB), Chhabra, Bundi (WB), Dausa, Nimbahera, Sawai Madhopur (WB) and Suratgarh.

⁵¹ Abu Road- 1, Alwar-II-4, Beawar-1, Bhilwara-9, Bundi (WB)-7, Chaumahla-2, Chittorgarh (WB)-18, Chhabra-19, Dausa-10, Malpura-10, Nimbahera-18, Rajsamand (WB)-11, Sawai Madhopur (WB)-13, Sikandra-2, Sriganganagar-5 and Suratgarh-6

contractor does not provide any of the policies and certificates required, the employer may effect the insurance and recover the premium which the employer had paid from payments due to the contractor. It was observed that in eight divisions⁵², out of 58 packages (176 roads) the insurance cover was provided in 27 packages (76 roads) for the period of construction of work whereas it was to be provided up to the defect liability period of five years. In 31 packages (100 roads), no insurance cover was provided by the contractors (**Appendix-3.14**). Contractors were thus allowed undue benefit of ₹ 1.43 crore due to non-payment of premium.

The State Government accepted the facts and replied (September 2017) that action as instructed in the contract agreement shall be taken.

➤ The Instruction to Bidder states that within 21 days after issuance of letter of acceptance, the successful bidder shall sign the contract agreement and deliver to the employer a performance security which should be valid up to 45 days after the expiry of defect liability period *i.e.* period of routine maintenance of five years. Failure to comply with the requirements of Instruction to Bidder shall constitute sufficient grounds for cancellation of award.

During scrutiny of records of selected divisions, it was observed that in 27 packages of five divisions⁵³, performance security was not furnished to the employer for the required period *i.e.* up to 45 days after the expiry of defect liability period. The Department did not take any action against the successful bidders (**Appendix-3.15**).

The State Government replied (September 2017) that concerned PIUs have been asked to clarify reasons for not taking any action against the defaulter contractors and to get the Bank Guarantee (BG) extended for the required period.

3.3.5.3 Inadequate plantation

In order to address environmental, concerns and to facilitate greening of rural roads it was decided to have road side plantations under the project for conservation of the environment and reduce pollution.

The work of plantation and its maintenance for five years was to be carried out under MGNREGS funds and the implementing agency would be Gram Panchayat/Forest Department. The PWD had to provide the action plan for road side plantations on RRSMP roads and detailed information about name of roads, sanctioned length for plantation, species of trees and number of trees to be planted.

The QPR of March 2017 showed a target of 92,476 trees to be planted in ten districts. In the remaining districts targets were not set. No trees however were planted in any of the districts.

⁵² Beawar, Bhilwara, Chaumahla, Chhabra, Chittorgarh (WB), Dausa, Nimbahera and Sawai Madhopur (WB).

⁵³ Beawar, Chittorgarh (WB), Rajsamand-WB, Malpura and Nimbahera

The State Government replied that issuance of Administrative and Financial sanction for plantation works to be done under MGNREGS is being pursued regularly by PWD officers with District Collectors.

3.3.6 Quality Control and Monitoring

➤ The bidding data sheet states that the contractor should procure bitumen/emulsion required for the execution of work from authorized refinery and furnish the bitumen testing certificate from Government Agency/Regional Laboratory/Engineering College before use. During scrutiny of records of Chittorgarh (WB) division, it was noticed that in seven packages for 22 road works (*Appendix-3.16*) bitumen/emulsion testing certificates were not produced by the contractors. In absence of this, the quality of bitumen and emulsion could not be ensured. This was also not checked by the concerned Executive Engineer. In four packages (12 road works), bitumen/emulsion was used for the roads on the basis of Consignee Receipt Certificate⁵⁴ (CRC) issued 5 to 34 months before the work orders were issued.

The State Government replied (September 2017) that explanations regarding testing certificates of bitumen/emulsion have been sought from the PIU office.

➤ The quality control register had to be maintained in two parts: the first part for recording the quality control tests and second part for recording the abstract of tests and action taken to remedy the deficiencies. During scrutiny of records of selected divisions, it was found that only first part of quality control register was maintained by seven divisions⁵⁵ while second part was not maintained. It could not be ascertained whether the deficiencies recorded in first part were addressed.

The State Government replied (September 2017) that instructions have been issued to all the divisions to ensure the maintenance of Quality Control register.

➤ The State Quality Monitor (SQM)⁵⁶ has to inspect the quality of every work at least three times. The first two inspections of every work will be carried out during the execution of work at three month intervals and the last inspection would be carried out within one month of completion of work. Test check revealed that against the 977 completed (March 2017) road works 2931 inspections were required to be carried out by SQM. However, it was seen that only 15 (1.54 *per cent*) inspections at first stage, 61 (6.24 *per cent*) inspections at second stage and 722 (73.90 *per cent*) inspections at third stage were carried out. In absence of required number of inspections, it is not clear how the Department could be assured of the quality of roads.

On this being pointed out (May 2017) by audit the State Government accepted (September 2017) that till January 2017 the number of SQM inspections were

⁵⁴ It is a certificate regarding details of Bitumen/Emulsion and issued by the supplier to the Contractor.

⁵⁵ Bhilwara, Chittorgarh (WB), Chhabra, Malpura, Nimbahera, Rajsamand-WB and Sawai Madhopur-WB

⁵⁶ Quality control units, setup/engaged by the State Government, independent of the Executive Engineers/PIU.

not up to the mark and the quality control tests have been carried out by PWD technical field staff as per norms to assure the quality before release of payment and these test result were linked to the payment. Tests have also been carried out by PMC during site visit. Therefore, quality was assured. The reply is not acceptable as the measures taken at departmental level are only stop gap arrangements and can not be taken as a valid substitute for the SQM inspections.

3.3.7 Conclusion

Upto March 2017, Rural road connectivity was provided to 990 villages (93 *per cent*) out of 1056 villages to be connected. Works in key areas related to second component were delayed. Similarly, work related to safe corridor demonstration programme related to third component was also delayed.

- The department did not provide the information whether all villages having population between 250-499 were taken into account in the plan for providing connectivity with all-weather bituminous roads.
- Undue benefits were given to contractors in violation of the conditions of the contract.
- Norms related to quality control such as maintenance of Part-II of quality control register were not fulfilled by some of the selected divisions. Required number of inspections at different stages of civil work were also not conducted by State Quality Monitor.

Public Works Department

3.4 Non-completion of road led to non-connectivity of habitations

Improper fund management resulted in non-completion of work after incurring an expenditure of ₹ 2.61 crore and non-fulfilment of the objective of providing road connectivity to the habitations

The primary objective of the *Pradhan Mantri Gram Sadak Yojana* (PMGSY) was to provide connectivity by way of an all-weather road, which is usable throughout the year, to the eligible unconnected habitations in the rural areas with a population of 500 persons and above. Paragraph 4.1 of the PMGSY guidelines provide that proper planning is imperative to achieve the objective of the programme in a systematic and cost effective manner. Further, paragraph 11.5 of the guideline provides that in case the value of tenders received is above the estimate that has been cleared by the Ministry of Rural Development, the difference (tender premium) pooled for the entire District/State for works cleared in a phase/batch will be borne by the State Government.

The State Government issued (September 2013) administrative and financial sanction of ₹ 3.17 crore for construction of three⁵⁷ roads under PMGSY (package no. RJ-08-WB-17) in Bikaner district. The tender was awarded (February 2014) by the Chief Engineer, PWD, Rajasthan, Jaipur at a cost of ₹ 4.11 crore and work order was issued (March 2014) by Executive Engineer, PWD Division, Nokha with stipulated date of completion as 3 January 2015. As per note below the work order, the work was to be restricted up to the amount of administrative sanction of ₹ 3.17 crore without change in physical target. The contractor was paid ₹ 3.27 crore for the works completed up to March 2016.

Test check (May 2016) of records of the SE, PWD Circle, Bikaner revealed that out of the three roads included in the package, one road was fully completed and two roads⁵⁸ remained incomplete due to lack of budget. Expenditure incurred on these two roads was ₹ 2.61 crore. As the amount of work order was more than the administrative sanction issued, it needed an additional fund of ₹ 94.66 lakh to complete the work. No request was made by the field officers for obtaining the additional fund either before issuing the work order or subsequently and works were treated as finalised by EE at incomplete stage.

Thus, non-compliance with aforesaid provisions and awarding of work without making proper arrangement of funds resulted in non-completion of roads after incurring an expenditure of ₹ 2.61 crore and the objective of the PMGSY to provide all-weather road connectivity to the targeted habitations was defeated.

⁵⁷ (i) Seelwa to Naykon/Bhatiyon-ki-Dhani ₹ 60.10 lakh (km 0/0 to km 3/0) (ii) Hansasar to Godaron-ki-Dhani ₹ 1.02 crore (km 0/0 to km 5/0) (iii) Kakko to Jogaji-ki-Dhani ₹ 1.54 crore (km 0/0 to km 8/0)

⁵⁸ Hansasar to Godaron-ki-Dhani completed in 4.275 km length (₹1.05 crore), Kakko to Jogaji-ki-Dhani completed in 6.500 km length (₹ 1.56 crore)

The State Government stated (February 2017) that maximum population of Godaron-ki-Dhani and Jogaji-ki-Dhani were residing in scattered Dhanis and roads constructed up to the central places *i.e.* water reservoir in case of Godaron-ki-Dhani and school in case of Jogaji-ki-Dhani were being used by the people. It further stated (March 2017) that as the Dhanis were located at scattered places, they were not shown in the strip plan enclosed with Detailed Project Report.

The reply is not acceptable on the following grounds:

- In case of Godaron-ki-Dhani, in the strip plan enclosed with the project report, neither the location of the central place *i.e.* water reservoir nor the habitation at 4.275 km (last point of the road constructed) were shown. All along the road, agriculture land was shown. In case of Jogaji-ki-Dhani, the central place *i.e.* school was located near 8.000 km whereas the road was constructed up to the distance of 6.500 km and there was no habitation at the end point of the road. The objective of PMGSY to provide all weather road, operable throughout year, was not achieved due to non- construction of roads in full length.
- As per paragraph 3.4 of PMGSY guidelines, for determining the population of a cluster, population of all habitations within a radius of 500 metres are clubbed. In the instant case, road was not constructed in 0.725 km length in case of Godaron-ki-Dhani and 1.500 km in case of Jogaji-ki-Dhani. The distance of both the Dhanis from the last point of the roads constructed was more than 500 metres. This was contrary to the rule mentioned *ibid*. Also, as the habitations remained at a distance of more than 500 metres from an all weather road even after construction, these came under the definition of unconnected habitations as per paragraph 3.3 of PMGSY guidelines.

3.5 Irregular payment to contractors for curing compound

Irregular payment of ₹ 83.55 lakh made to contractors for curing compound under *Gramin Gaurav Path* Scheme

As per clause 10.8 of Indian Road Congress (IRC) 15-2011 regarding Standard Specifications and Code of Practice for Construction of Concrete Roads, the curing⁵⁹ of concrete can be done by one of the following two methods:

- By application of curing compound⁶⁰ followed by spreading of wet hessian and moistening it regularly. In case of arid areas where water is extremely scarce, two applications of curing compound with moist curing by wet hessian may be allowed at the discretion of the Engineer.
- For small works, curing can be done by manual methods using wet hessian which is kept moist during curing period. Curing shall be done for a

⁵⁹ Curing is a process of preventing loss of moisture from the concrete. It enhances strength and durability of concrete besides serviceability.

⁶⁰ It is a chemical compound which is applied to a concrete surface to prevent the loss of moisture during early stages of cement hydration.

minimum period of 14 days. In case of blended cement, curing shall be done for 16 days.

The State Government accorded (December 2014) administrative and financial sanction for construction of Cement Concrete (CC) roads under *Gramin Gaurav Path Scheme (GGPS)* for ₹ 1112.95 crore on 2119.16 kms. The work orders for construction of CC roads in following three Divisions were issued as under:

1. The Executive Engineer (EE), PWD Division, Vallabhnagar issued (December 2014) work orders for 27 roads⁶¹ for ₹ 8.96 crore with stipulated date of completion as 28 August 2015. The contractor was paid a sum of ₹ 7.89 crore upto March 2016.
2. The EE, PWD Division, Dhariawad issued (February 2015) work orders for construction of seven roads⁶² for ₹ 2.53 crore with stipulated date of completion as 24 July 2015. The contractor was paid a sum of ₹ 2.38 crore up to April 2016.
3. The EE, PWD Division, Jhalawar issued (December 2014) work orders for construction of 30 roads⁶³ for ₹ 16.76 crore with stipulated date of completion as 28 August 2015. The contractor was paid a sum of ₹ 15.43 crore up to January 2016.

During scrutiny of records (September 2016) of the Divisions, it was observed that Basic Schedule of Rate (BSR) of item CC pavement work included the element of curing compound whereas curing of CC roads was done by the contractors using water. The CC pavement work was executed in 37986.68 cum area for which an expenditure of ₹ 83.55 lakh was incurred on curing compound as per table given below:

Name of Division	CC pavement work executed (in cum)	Expenditure incurred (₹ in lakh)
Vallabhnagar	14598.13	42.11
Dhariawad	3956.92	15.17
Jhalawar	19431.63	26.27
Total	37986.68	83.55

As the curing compound was not used by the contractors and curing was done using water, the payment of ₹ 83.55 lakh made in respect of curing compound was irregular and resulted in undue benefit to the contractors.

In case of Vallabhnagar, the State Government replied (February and May 2017) that as per provision of IRC 15-2011, curing of GGP roads was carried out using curing compound as well as water. The reply is not acceptable as no evidence in support of using curing compound was submitted.

In case of Jhalawar, the State Government replied (May 2017) that curing was done using water to obtain required strength. The item of curing compound

⁶¹ Package No. RJ-33-05/5054/GGP Road/Plan/2014-15

⁶² Package No. RJ-26-04/5054/GGP Road/Plan/2014-15

⁶³ Package No. RJ-19-01/5054/GGP Road/Plan/2014-15

was removed from 'G' schedule as the contractor was not bound to use the curing compound. The reply is not acceptable as the payment for curing compound was made to contractor as per rate analysis.

In case of Dhariawad, the State Government replied (May 2017) that curing compound is used for curing specific places where continuous traffic ply on the roads and it is not possible to divert the traffic till the hardening of cement concrete. As the constructed roads were rural roads, the traffic was diverted and water curing was done till the end of curing period for 14 days and opening of traffic. On these roads, curing compound was not used because it was not needed. There was no provision for deduction of rate from BSR if curing compound was not used and payment of work was made on the basis of rates given in BSR instead of rate analysis. The reply itself confirms that curing compound was not used and curing was done by using water.

Action of the Department to add curing compound in rate analysis as an extra item was, therefore, irregular and resulted in undue benefit to the contractors.

3.6 Awarding of work without ensuring availability of land

Awarding of work without ensuring availability of land led to non-completion of road even after incurring an expenditure of ₹ 9.50 crore and deprivation of road connectivity to the habitations

Rule 351 of PWF&AR provided that no work should be commenced on land which has not been duly made over by the responsible civil officer.

The Ministry of Road, Transport and Highways (MoRTH), Government of India issued (March 2010) administrative and financial sanction of ₹ 27.38 crore for construction of bypass road in 6.750 km length (between km 40/000 to 51/000 reach) on NH-112 (Bar-Bilara-Jodhpur Section). The Chief Engineer (CE), National Highway (NH), Rajasthan accepted (July 2010) the tender for ₹ 17.61 crore and work order was issued (October 2010) by Executive Engineer (EE), PWD NH Division, Pali with stipulated date of completion as 31 January 2012. The work was finalised at incomplete stage after incurring an expenditure of ₹ 9.50 crore (January 2015).

Scrutiny of records of EE, PWD NH Division, Pali revealed (August 2016) that the road work was executed in 4.250 km length (km 2/000 to 6/750) excluding the stretch from 0/0 km to 2/000 km and 5/200 km to 5/700 km. In the stretch 0/0 km to 2/000 km, the road could not be constructed due to non-acquisition of land. There was a dispute on land and a case was pending in Hon'ble Rajasthan High Court (August 2016). In the remaining stretch from 5/200 km to 5/700 km, the road could not be constructed due to not shifting of electric high tension lines falling in the alignment of road. The electric high tension lines were shifted in March 2013. Due to delay in shifting of electric high tension line, the work could not be completed within the scheduled time and the contractor demanded revision in contract price. The contractor stopped (May 2012) the work on the plea that the revision sought was not sanctioned by the Department. On the recommendation (May 2014) of the CE, NH, PWD Rajasthan, MoRTH accorded (August 2014) approval to foreclose the present agreement. The contract agreement was terminated (November

2014) by CE, NH, PWD Rajasthan. Scrutiny further revealed that in the technical report, it was certified by the Superintending Engineer (SE), PWD Circle, Jodhpur that there was no land dispute in this reach and there was no need of shifting public utilities. Awarding of work without ensuring the availability of land and non-shifting of high tension lines in time, therefore, led to non-completion of road even after incurring an expenditure of ₹ 9.50 crore.

The State Government replied (March 2017) that during execution of work, it was noticed that private land of some *khasras* falling in the alignment of reach from km 0/0 to km 2/0 was not acquired earlier. For acquisition of the land, process was started but some of the cultivators did not accept the amount of land compensation. It was also stated that nearby habitants had encroached the land and a court case was filed in the Rajasthan High Court. The reply is not acceptable as the legal title of land and timely shifting of high tension lines were not ensured before awarding the road work. In addition to this, the certificate given by the SE, PWD in technical report that there was no dispute of land was incorrect.

3.7 Excess payment of price escalation

Excess payment of price escalation of ₹ 1.02 crore

Clause 47 of the contract agreement executed with the contractor stipulates that the contract price shall be adjusted for increase or decrease in rates of labour, material, fuel and lubricants in accordance with the principles and formula given in the contract data. The price adjustment shall apply for the work done from the date of start given in the contract up to the end of the initial intended completion date or extension granted by the engineer in-charge and the price adjustment shall be determined during each month. Further, the contract data stipulates that the base index shall be taken of the date 28 days preceding the date of opening of bid.

The MoRTH, Government of India (GoI) accorded (March 2013) administrative, technical and financial sanction of ₹ 70.85 crore for strengthening of road with paved shoulders (34.100 km from km 259/000 to 286/600, km 290/600 to 297/100) and widening of existing two lane road to four lane (4 km from km 286/600 to 290/600) on NH-15 (Jaisalmer-Barmer-Sanchore Road). The tender for the work was accepted (August 2013) by Chief Engineer (NH), PWD, Jaipur for ₹ 59.16 crore and the work order was issued (August 2013) by Executive Engineer (EE), PWD NH Division, Barmer with stipulated date of completion as 28 February 2015. The contractor was paid a sum of ₹ 3.85 crore as price escalation up to March 2015.

In an another case, MoRTH, GoI accorded (December 2012) administrative, technical and financial sanction of ₹ 57.70 crore for widening of two lane road with geometric improvement in re-aligned portion (31.300 km from km 223/500 to 254/800) of Pachpadra-Bagundi Section of old SH 28-B including construction of minor bridge on NH-112 (Bar-Bilara-Jodhpur-Barmer). Tender for the work was accepted (August 2013) by Chief Engineer (NH),

PWD, Jaipur for ₹ 43.00 crore and the work order was issued (August 2013) by EE, PWD NH Division, Barmer with stipulated date of completion as 8 March 2015. The contractor was paid a sum of ₹ 2.28 crore as price escalation up to August 2014.

Test check of records of EE, PWD NH Division, Barmer revealed (August 2016) that while making payment to contractors on account of price escalation for labour, steel, cement, bitumen, POL, plant and machinery and other material components, the date of opening of technical bid was considered for calculating the payment of price escalation instead of the date of opening of financial bid. Also, the base index for calculation of price escalation was to be taken of the date prior to 28 days from the date of opening of financial bid. In case of Jaisalmer-Barmer-Sanchore Road, the financial bid was opened on 14 June 2013 and, therefore, the base index rate of 17 May 2013 was to be taken but the Division took base index rate of 4 April 2013. In case of Pachpadra-Bagundi section, old SH 28-B including construction of minor bridge work on NH-112, the financial bid was opened on 3 May 2013 and, therefore, the base index rate of 6 April 2013 was to be taken but the Division took base index rate of 8 January 2013. This resulted in excess payment of price escalation of ₹ 1.02 crore to the contractors (*Appendix-3.17*).

The State Government replied (May 2017) that combined bid (including technical and financial bid) was submitted by the contractor on the last date of bid submission and the base index were considered with respect to the date of opening of technical bid and not financial bid. The reply is not acceptable as clause 26.1 of part-E of contract agreement stipulates that technical bid only determines the eligibility criteria whereas financial bid determines the remaining conditions with respect to the priced bill of quantities, technical specifications and drawings. Also base price for calculating price escalation was to be taken prior to 28 days from date of opening of financial bid. Further, a letter issued (April and June 2017) to Finance Department regarding clarification about the date of opening of bid for payment of price escalation, has remained unanswered (August 2017).

3.8 Avoidable expenditure on construction of Cement Concrete roads

Avoidable expenditure of ₹ 4.19 crore due to wrong inclusion of items of excavation of earth, construction of granular sub-base and laying of compacted graded stone aggregate in the estimates of construction of Cement Concrete roads under *Gramin Gaurav Path Scheme*

As per circular issued (December 2014) by Principal Secretary, Public Works Department (PWD), Rajasthan, Jaipur, the construction of Cement Concrete (CC) roads under *Gramin Gaurav Path Scheme* (GGPS) would be undertaken on already existing CC/bitumen roads and, therefore, a new sub-base or preparation of ground for fresh CC roads would not be required. It was also stipulated in the circular that while giving the work orders under GGPS, Department would ensure that items like excavation of earth, construction of

granular sub-base and laying of compacted graded stone aggregate were not included, as far as possible, because it would exhaust the entire budget given for the purpose without having quality construction. According to the circular, avoidable expenditure on items as mentioned above was to be taken care of at all stages to reduce the cost and use the money to connect more areas with CC roads.

The State Government accorded (December 2014) administrative and financial sanction for construction of CC roads under GGPS. The work orders for 95 roads⁶⁴ were issued (December 2014) by concerned Executive Engineers (EEs) for ₹ 43.86 crore⁶⁵ and stipulated date of completion was fixed between May and September 2015. A sum of ₹ 34.55 crore⁶⁶ was paid (August 2015 to August 2016) to various contractors.

Scrutiny of records (January- October 2016) of the Divisions revealed that the Department had included excavation of earth, construction of granular sub-base and laying of compacted graded stone aggregate as individual items in the estimates of works. It is to mention that these works were not to be included according to GGPS guidelines as mentioned above. However, the works were awarded/executed in contravention to GGPS guidelines. The Department could have avoided an expenditure of ₹ 4.19 crore (**Appendix-3.18**) by not including these items in the estimates and constructing the CC roads on already existing CC/bitumen roads as per the existing instructions. This would have helped the Department to use the savings to connect more areas with CC roads.

In case of Balotra, Shahpura and Barmer-I Divisions, the State Government stated (January, June and July 2017) that to resolve the issue of water storage and mud problem on the road, excavation of earth, gravel and WBM works were included in the estimate and works were executed. In case of Chittorgarh Division, it was stated (August 2017) that most of the roads were badly damaged due to accumulation of water on roads and to resolve this issue, these items were taken in the estimates and the works executed. In case of Nawalgarh Division, it was stated (June 2017) that there was a lot of traffic on these roads due to mining operations in the area, so Granular Sub-base and Water Bound Macadam works were executed as per design of crust approved by State Technical Agency (STA). The reply is not acceptable as inclusion of these items was in violation of the directions of the Government. Further, no survey reports in support of the roads claimed to have been badly damaged were furnished by the Divisions and in case of Nawalgarh division, STA report in respect of only one out of 17 roads was submitted. In case of Barmer-I division, surface history of roads, signed by concerned Assistant Engineer's (not survey report) was submitted by the department, but it is not clear as to whom and when this document was submitted and what action was taken by the higher authorities.

⁶⁴ Balotra (15 roads), Chittorgarh (26 roads), Barmer-I (14 roads), Shahpura (23 roads) and Nawalgarh (17 roads)

⁶⁵ Balotra (₹ 9.73 crore), Chittorgarh (₹ 12.52 crore), Barmer-I (₹ 7.02 crore), Shahpura (₹ 8.41 crore) and Nawalgarh (₹ 6.18 crore)

⁶⁶ Balotra (₹ 6.54 crore), Chittorgarh (₹ 9.58 crore), Barmer-I (₹ 5.84 crore), Shahpura (₹ 6.63 crore) and Nawalgarh (₹ 5.96 crore)

3.9 Irregular expenditure on construction of roads

Irregular expenditure of ₹ 80.28 lakh incurred against the rule of financial propriety

Rule 10 of General Financial and Accounts Rules provides that every Government servant incurring or authorising expenditure from public funds should be guided by high standards of financial propriety. Every Government servant should also enforce financial order and strict economy at every step. He is expected to exercise the same vigilance in respect of expenditure incurred from public money as a person of ordinary prudence would exercise in respect of expenditure of his own money.

The State Government issued (December 2014) administrative and financial sanction for construction of Cement Concrete (CC) roads under *Gramin Gaurav Path Scheme* (GGPS). Technical sanction for 31 roads⁶⁷ was issued by Executive Engineer (EE), Public Works Department (PWD) Division, Chittorgarh for ₹ 15.50 crore. After tendering process, the work order was issued (December 2014) by EE, PWD Division, Chittorgarh for ₹ 12.52 crore with stipulated date of completion as 6 September 2015. The work remained incomplete and the contractor was paid ₹ 9.58 crore up to March 2016.

Test check of records (May 2016) of EE, PWD, Division Chittorgarh revealed that out of 31 roads, two roads were constructed 1 to 12 months earlier⁶⁸ under other schemes and were under guarantee period. In spite of knowing this fact, these roads were again sanctioned under GGPS and works were under progress after incurring an expenditure of ₹ 80.28 lakh. The road-wise details of expenditure incurred are as below:

S.No.	Name of Road	Reach	Expenditure incurred under GGPS (₹ in lakh)	Month in which the work was earlier executed under other scheme
1	Approach Road to Pal	2/500 km to 3/500 km	40.67	November 2013 (12 months before) under the scheme RIDF ⁶⁹
2	Chittorgarh-Soniyana Surpur Road	13/500 km to 14/500 km	39.61	November 2014 (one month before) Reach from km 13/000 to 14/000 was executed under the scheme i.e. Non-patchable works.
Total			80.28	

As the reach of the above roads had already been constructed under other schemes 1 to 12 months earlier and were under guarantee period, sanctioning of these roads again under GGPS and incurring an expenditure of ₹ 80.28 lakh on construction was avoidable and against the rule of financial propriety.

⁶⁷ Package No. RJ-10-01/GGP Road/Plan/2014-15

⁶⁸ from the date of sanction under GGPS

⁶⁹ Rural Infrastructure Development Fund

The State Government replied (May 2017) that the roads located in the populated areas of *Gram Panchyat* headquarters were old and badly damaged. On the recommendation of local Member of Legislative Assembly, CC roads were constructed in these areas. The reply is not acceptable as the old and badly damaged roads were not part of the above sanctioned roads and there was no administrative and financial sanction for the construction of these roads under GGPS. As such, payment made for these roads against the amount booked for the roads sanctioned under GGPS was irregular as in disguise of construction of sanctioned CC roads under GGPS, CC roads were constructed elsewhere for which no sanction existed.

Water Resources Department

3.10 Blocking of funds and non- recovery of compensation

Blocking of funds of ₹ 9.21 crore due to non-execution of work of Dam and Canal simultaneously and non-recovery of compensation ₹ 93.24 lakh from the contractor

As per instructions of Chief Engineer, Water Resources Department (WRD), construction of dam and canal should be taken up simultaneously so as to utilise the water stored in dam for irrigation purpose immediately. Further, the Planning commission has also emphasised that to secure the maximum use of irrigation facilities created and to prevent unnecessary locking up of capital, the construction of dam, canal and field channels should be appropriately coordinated from the time a project is first approved.

The State Government issued (May 2007) administrative and financial sanction of ₹ 15.44 crore for construction of Ghora Khoj Minor Irrigation Project which was revised to ₹ 19.24 crore in July 2011. The sanction included the work of construction of Dam and Canal. The work of construction of Dam was completed in May 2010 after incurring an expenditure of ₹ 9.21 crore. Technical sanction for construction of Right Main Canal⁷⁰ having Culturable Command Area (CCA) of 425.21 hectares was issued (December 2009) by Additional Chief Engineer, Water Resources (WR) Zone, Udaipur for ₹ 3.81 crore which was revised to ₹ 4.18 crore in September 2014. The tender for construction of canal was accepted (May 2010) by Chief Engineer (CE), WR Department, Rajasthan, Jaipur for ₹ 3.50 crore and work order was issued by Executive Engineer (EE), WR Division, Salumber in May 2010 with stipulated date of completion as 4 December 2011. The work was finalised at incomplete stage (5 September 2013) and payment of ₹ 2.42 crore was made to the contractor for the completed portion of the work (March 2015).

Test check of records of EE, WR Division, Salumber revealed (April 2016) that work of canal was not completed by the contractor even after grant of time extension up to 28 February 2013. The CE, WR accorded (September 2013) sanction to initiate action under clause 2 and 3 (c) of the agreement. In

⁷⁰ There is no left main canal

compliance of this, EE, WR Division, Salumber recovered (September 2013) a sum of ₹ 14.10 lakh from the contractor as compensation under clause 2 of the agreement out of the bank guarantee of ₹ 35.03 lakh furnished by the contractor and the balance amount of ₹ 20.93 lakh was lying with the Division in Deposit-V⁷¹. The Department initiated action to get the remaining work completed by another contractor at the risk and cost of the original contractor under clause 3 (c) of the agreement. Tenders were invited six times (February 2014 to June 2015) for completing the balance work of ₹ 1.31 crore but no contractor participated in the bidding process. The tender was accepted and work order was issued in June 2016 to another contractor for ₹ 3.07 crore (including cost of extra items). The original contractor was therefore liable to pay compensation of ₹ 93.24 lakh under clause 3 of the agreement, which was not recovered.

Due to non-awarding of work of Canal and Dam simultaneously, there was blocking of expenditure of ₹ 9.21 crore on construction of Dam and the farmers were deprived of the irrigation facilities for more than six years.

The State Government replied (May 2017) that construction of dam had been completed in May 2010 and work of Canal was expected to be completed by June 2017. It further stated that out of total envisaged CCA of 425 hectares, irrigation facilities had been provided in 150 hectares up to 2011-12 and on completion of the project, irrigation facilities in remaining area of 275 hectares would be provided. The reply is not acceptable as due to non-allotment of work of dam and canal simultaneously, the envisaged CCA of canal could not be created timely and farmers were deprived of the irrigation facilities for more than six years. Further, the Department had not recovered the amount of compensation under clause 3 of the agreement.

⁷¹ Security Deposit Account

3.11 Blocking of funds on construction of Canal

Lack of clearance in respect of forest land caused blocking of funds of ₹ 39.87 crore on construction of Bhikha Bhai Sagwara Canal

Rule 351 of Public Works Financial and Accounts Rules provides that no work should be commenced on land which has not been duly made over by the responsible civil officer.

The Bhikha Bhai Sagwara Canal is a scheme run by the State Government in the predominantly tribally populated area of Dungarpur. This canal brings irrigation water from Mahi Bajaj Sagar Dam with the objective to cater to 27500 hectares of Culturable Command Area (CCA). The canal works up to RD⁷² 78.88 km were completed (May 2012) and are being utilised. The State Government issued (April 2013) administrative and financial sanctions for construction of remaining reaches beyond RD 78.88 km *i.e.* from RD 78.88 km to 92.01 km (MIS⁷³-VII) for ₹ 41.80 crore, from RD 92.01 km to 105.00 km (MIS-VIII) for ₹ 44.27 crore and from RD 105.00 km to 115.00 km (MIS-IX) for ₹ 42.50 crore. The sanctions issued were subject to the clearance of land from the Forest Department before start of the work. The work orders⁷⁴ for construction of canal were issued (between September 2013 and October 2014) by Executive Engineer (EE), Bhikha Bhai Sagwara Canal Division, Mahi Project, Sagwara with stipulated date of completion between September 2015 and October 2016. The work of construction of canal from RD 81.09 km to RD 87.51 km was completed (September 2015) after incurring an expenditure of ₹ 12.73 crore and work from RD 97.08 km to 110.37 km was in progress (August 2016) after incurring an expenditure of ₹ 27.14 crore⁷⁵. The work from RD 87.51 km to 92.01 km was pending for non- finalisation of tenders. The linear chart of the canal is depicted as below:

Completed portion	Forest land (3.58 ha.)	Completed portion	Tender not finalised	Forest land (0.29 ha.)	Work in progress
Km 0.0 to 78.88	Km 78.88 to 81.09	Km 81.09 to 87.51	Km 87.51 to 92.01	Km 92.01 to 97.08	Km 97.08 to 110.37

Test check of records of Bhikha Bhai Sagwara Canal Division, Mahi Project, Sagwara revealed (September 2016) that the work from RD 78.88 km to 81.09 km and from RD 92.01 km to 97.08 km could not be executed due to involvement of 3.87 hectares forest land. The matter for clearance of forest land was referred to Forest Department in April 2013 and permission for the same is awaited (April 2017). Non-obtaining of clearance of forest land from the Forest Department before start of the work resulted in blocking of funds of ₹ 39.87 crore on construction of canal in parts without construction of intervening portions. It also resulted in deferment of benefits of irrigation

⁷² Running Distance

⁷³ Minor Irrigation Scheme

⁷⁴ From RD 81.09 to 87.51 for ₹ 12.91 crore, RD 97.08 to 102.00 for ₹ 13.05 crore, RD 102.00 to 105.00 for ₹ 9.06 crore and from RD 105.00 to 110.37 for ₹ 11.58 crore

⁷⁵ From RD 97.08 to 102.00 for ₹ 9.95 crore, RD 102.00 to 105.00 for ₹ 7.69 crore and from RD 105.00 to 110.37 for ₹ 9.50 crore

facilities to be provided to the farmers, out of the intended CCA to be created on completion of canal from RD 78.88 km to RD 110.37 km.

The State Government replied (May 2017) that the District Collector, Dungarpur had issued (May 2015 and November 2016) certificates under the Scheduled Tribes and Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 for the forest land to be diverted for non-forest purposes. It was also stated that an equivalent non-forest land in lieu of forest land falling between RD 78.88 km and 81.09 km and RD 92.01 km and 97.08 km was being diverted and the process of seeking permission from Forest Department was progressing. The reply is not acceptable as acquisition of land was the pre-requisite and the administrative and financial sanctions were accorded subject to the condition that forest clearance be obtained before start of the work. As such, construction of canal from RD 81.09 km to RD 87.51 km and from RD 97.08 km to 110.37 km without construction of canal from RD 78.88 km to 81.09 km and RD 87.51 km to 97.08 km due to non-availability of land for want of forest clearance resulted in blocking of funds of ₹ 39.87 crore and deferment of benefits of irrigation facilities to be availed by the farmers after completion of the project.

Anadi Misra

(ANADI MISRA)

Accountant General

(Economic & Revenue Sector Audit), Rajasthan

JAIPUR,
The 02 FEB 2018

Countersigned

Rajiv Mehrishi

(RAJIV MEHRISHI)

Comptroller and Auditor General of India

NEW DELHI,
The 06 FEB 2018

