Chapter VI
Mineral Receipts

6.1 Tax administration

The responsibility for the management of mineral resources is shared between the Central and State Governments\(^1\). The Mines and Minerals (Development and Regulation) (MMDR) Act, 1957 enacted by the Central Government, lays down the legal framework for regulation of mines and development of minerals\(^2\). The Mineral Concession (MC) Rules, 1960, the Mineral Conservation and Development (MCD) Rules, 1988 and the Granite Conservation and Development Rules, 1999 have been framed for conservation and systematic development of minerals and for regulating grant of permits, licences and leases.

Legislations for exploitation of minor minerals have been delegated to the States. Accordingly, Karnataka Minor Mineral Concession (KMMC) Rules, 1994 were framed by the State Government.

6.2 Internal audit

The Internal Audit Wing (IAW) is functional in the Department of Mines and Geology (DMG) since 1985. It is headed by an Accounts Officer on deputation from the State Accounts Department under the overall control of the Director.

As per the information furnished by the Department, out of 31 offices due for audit during 2014-15, only one (3.23 per cent) was audited. The shortfall in coverage of offices was attributed to the shortage of staff in the Wing. Year wise details of the number of observations raised, settled and pending along with tax effect, as furnished by the Department are as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>Observations raised</th>
<th>Observations settled</th>
<th>Observations pending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of cases</td>
<td>Amount</td>
<td>Number of cases</td>
</tr>
<tr>
<td>Upto 2010-11</td>
<td>1636</td>
<td>334.13</td>
<td>1403</td>
</tr>
<tr>
<td>2011-12</td>
<td>04</td>
<td>1.56</td>
<td>-</td>
</tr>
<tr>
<td>2012-13</td>
<td>02</td>
<td>1.48</td>
<td>-</td>
</tr>
<tr>
<td>2013-14</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2014-15</td>
<td>02</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1644</td>
<td>337.17</td>
<td>1403</td>
</tr>
</tbody>
</table>

As seen from above, it is clear that the activities of IAW in the Department have reduced to a greater extent after 2010-11 and virtually to nil in the previous two year period. This indicates that the Department is not according due importance to internal audit.

\(^1\) Entry 54 of the Union list (list I) and entry 23 and 50 of the State list (list II) of the Seventh Schedule of the Constitution of India.

\(^2\) Other than petroleum and natural gas and atomic minerals.
It is recommended that due importance may be accorded to strengthen IAW as internal audit is an important mechanism to ensure the compliance of the department with the applicable laws, regulations and approved procedures.

### 6.3 Results of audit

Test check of the records of 15 offices of the DMG during the year 2014-15 revealed non-levy of penalty for removing minerals without Mineral Despatch Permit (MDP), non/short recovery of royalty and other irregularities involving ₹ 206.38 crore in 61 cases, which fall under the following categories:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Category</th>
<th>Number of cases</th>
<th>Amount (₹ in crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Performance Audit Report on ‘Computerisation of the Department of Mines and Geology’</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Non/short levy of penalty for transportation of minerals without obtaining MDPs</td>
<td>13</td>
<td>196.92</td>
</tr>
<tr>
<td>3.</td>
<td>Non/short levy of Processing Fee</td>
<td>09</td>
<td>2.39</td>
</tr>
<tr>
<td>4.</td>
<td>Non/short levy of royalty</td>
<td>11</td>
<td>3.48</td>
</tr>
<tr>
<td></td>
<td>Other irregularities</td>
<td>27</td>
<td>3.59</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>206.38</strong></td>
</tr>
</tbody>
</table>

During the course of the year, the Department accepted under-assessments and other deficiencies involving ₹ 10.11 crore in 11 cases. An amount of ₹ 8.86 crore was realised in 37 cases pointed out in earlier years.

A few illustrative cases involving ₹ 1.44 crore are mentioned in the following paragraphs.
### 6.4 Performance Audit Report on ‘Computerisation of the Department of Mines and Geology’

#### Highlights

ILMS does not have provision to generate receipts for payments received, resulting in continuation of manual processes and duplication of work.

(Paragraph 6.4.2.1)

DMG had failed to re-establish the m-pass service which was disrupted due to technical incompatibility since February 2015 thereby depriving the generation of SMS based tripsheets for the leaseholders, particularly those of minor minerals which are located in remote places.

(Paragraph 6.4.2.2)

Absence of specific validation controls in registering motor vehicles used for transporting mineral ore and allowing multiple registrations of the same vehicle by different leaseholders prevents the system from enforcing restrictions on concurrent trip sheets being issued in respect of the same vehicle.

(Paragraph 6.4.3.1)

Modification of an existing mining plan results in creation of new mining plan without deactivation of the earlier plan and consequently monitoring the production and despatch of mineral based on the aggregate of both the plans.

(Paragraph 6.4.3.2)

Validation controls in payment module in respect of receipt date vis-à-vis instrument date, approval for data modification and controls to prevent repeated use of same instrument towards different types of payments were not incorporated rendering financial management insecure.

(Paragraph 6.4.3.4)

Transport of mineral through rail by issue of RAKE permits in ILMS in not integrated with Railway data for complete monitoring of mineral movement.

(Paragraph 6.4.3.5)

DCB module is not utilized resulting in compilation of manual DCB statements. Edit options in DCB module without systemizing the reasons for manual intervention and approval of another authority for manual modifications defeats the purpose of computerization.

(Paragraph 6.4.3.7)

Objective of real time monitoring of mineral carrying vehicles not achieved due to incomplete implementation of RFID surveillance systems at all leases and DMG not obtaining RFID data and absence of computerisation at all the checkposts.

(Paragraphs 6.4.4.1 and 6.4.4.2)
6.4.1 Introduction

The DMG is entrusted with the management of mineral wealth of the State and ensuring its optimum exploitation, having regard to various social, economic and conservation issues. The DMG is responsible for grant of leases for extraction of minerals, and monitoring of the extraction, dispatch and the levy and collection of royalty on the same. Other receipts from minerals include dead rent\(^3\), application fee, licence fee, permit fee, penalties, interest on belated payments of dues, etc.

6.4.1.2 Comprehensive Computerisation of the DMG

In April 2011, DMG launched the project “Comprehensive Computerisation of Mineral Administration” (CCoMA). The objectives of the project are as below:

1. Effective and hassle free mineral administration;
2. Facilitation of e-services to all stakeholders belonging to the DMG;
3. Real time accounting of mineral transportation;
4. Reduction in illegal mining through automated system;
5. Increase in state mineral revenue; and
6. Transparency and accountability in mineral administration.


\(^3\) Fixed rent paid by leaseholder in case of lease being idle or royalty payable on the mineral extracted being less than prescribed dead rent
6.4.1.3. Administration of mining/quarrying leases

Figure 6.1: Flow Chart Depicting Complete Life-Cycle of Lease Management Process

- **Grant of Lease**
- **Registration/DMG** (Lease holders, vehicles, weigh bridges, beneficiation plants, Buyers)
- **Uploading of Annual Mining Plan (AMP)/DMG**
- **Extraction of Minerals**
- **Apply For Bulk Permit /Lessee**
- **Generate Bulk Permit Number**
- **Generate MDP M-Pass via SMS/Lessee**
- **Generate Mineral Despatch Permit (MDP)//Tripsheets/Lessee**
- **Authentication of MDP at Check Posts/Authorised**
- **Monthly E-returns/Lessee**
- **Annual E-Returns/Lessee**
- **Audit Report by District Office/DMG**
- **Payment of Royalty at District Office**
- **Approval/DMG**
- **Acknowledgement of MDP by Buyer**
- **DCB/DMG**
6.4.1.4 Information Systems in use in DMG

ILMS incorporated modules for e-permit, m-pass, BSP and reports. Further, ancillary systems such as weighbridge configuration, checkpoint software and Radio Frequency Identity Detection (RFID) vigilance system were integrated with ILMS for overall monitoring of mineral movement. The information systems in use are as under:

1. **ILMS**: An application software to automate the processes of issue of permits for transport of mineral, filing of periodical returns by lease holders and Demand, Collection and Balance Register (DCB) for the DMG. It is a web based client server architecture with SQL 2008 for its RDBMS and MS Visual Studio 2013 (Framework 3.5) for front-end interface for users;

2. **Weighbridge**: This software is installed at the lease area and captures the real time weighing information and transfers weighing data to the centralized server of DMG (introduced from April 2013);

3. **m-pass**: SMS based Mineral Dispatch Permit (Trip sheet) generation for minor mineral leaseholders who are not able to develop IT infrastructure at the mine head (from February 2012);

4. **BSP** – Beneficiation user (enrichment plants), Stone crushers and Polishing units: Online web application for BSP to receive and acknowledge materials through system and to generate online permit and trip sheets for transportation of the mineral after enrichment/crushing/polishing (from February 2013);

5. **Check post**: Windows based application integrated with the centralized ILMS system as well with the weighbridges to verify real time data of the trip/vehicle with the data stored in the centralized server (from April 2013);

6. **RFID** – Radio Frequency Identity Detection technology enabled mineral movement monitoring and tracking system for the Lessee, Buyers, BSP, Check Post and DMG. All the mineral dispatch vehicles for transport of iron ore are configured with RFID tags which are automatically identified and verified by the RFID readers mounted on the various strategic locations at lease area, en route, check post and destination. System generates various alerts in case of any kind of violation during the entire mineral trip cycle. A web interface for DMG to monitor the mineral movement was envisaged (From April 2013).

6.4.1.5 Organisational Set-up

The DMG is under the administrative control of the Principal Secretary to the Government of Karnataka, Commerce and Industries Department. The DMG is headed by a Director, who is responsible for implementation of the related Acts and Rules for the systems and controls for sustainable mining in

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4 Beneficiation plants, Stone crusher units and Polishing units
5 Mineral Dispatch Permit/Trip sheet – an authorisation for mineral carrying vehicle issued by DMG as per Act/Rules.
Chapter VI: Mineral Receipts

Karnataka. There are 31 District Level offices, each office headed by a Deputy Director (DD) or a Senior Geologist (SG).

A Computer Cell (e-Cell) headed by the Director of Mines and Geology was constituted in January 2011 to oversee the computerisation of mineral administration activities. The responsibilities of the cell included software development for e-permits system, procurement of computer and accessories to the checkpost, procurement of weigh bridges, RFID tags, GPS etc. The Accounts Officer is the Nodal Officer for all computerisation activities. Besides, as per the terms of agreement, the application developer was to deploy support staff for overseeing the day to day technical issues of computerisation.

6.4.1.6 Audit Objectives

The objectives of the audit were to examine:

1. The adequacy of IT General Controls to ensure efficient and effective functioning of the IT Systems;
2. The adequacy of Application Controls to ensure data integrity and mapping of business rules into the system; and
3. Whether computerisation has achieved its stated objectives.

6.4.1.7 Audit Criteria

Provisions/requirements for mineral administration as set out in the following Act/Rules were used to evaluate the efficacy of the IT system:

1. Mines and Mineral (Development and Regulation) Act, 1957;
4. Karnataka Prevention of Illegal Mining, Transportation and Storage of Minerals Rules, 2011; and
5. Industry best practices with regard to general controls.

6.4.1.8 Audit Scope and Methodology

Processes/administrative procedures of the CcoMA were reviewed. Functioning of the ILMS from April 2011 to February 2015 was reviewed through analysis of data, review of documentation and feeding of test data. Data for the entire period commencing April 2011 onwards as on 10 February 2015 was analysed.

The extraction and dispatch of the minor mineral, ordinary sand has been kept outside the purview of the ILMS since the administration of the same is being co-ordinated by the DMG along with the Public Works Department. This audit does not include the administration of ordinary sand.

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6 Comprises of the Additional Director (Mineral), Deputy Director (Plans), Senior Geophysicist, Technical Advisor to the Director, Geologist (R&D), Geologist (Plans), Accounts Officer and Superintendent (Plan). The cell monitors all activities relating to ILMS and is in charge of entering the details of mining plan in the ILMS. Approval of Bulk permits for iron ore is also the responsibility of the cell.

7 IT Systems comprise of the ILMS and other ancillary systems such as weighbridge, checkpost and RFID vigilance system implemented by the DMG.
6.4.1.9 Acknowledgement

The co-operation of the Department of Mines and Geology in providing necessary information and records for audit as well as arranging for entry conference in July 2015 and exit conference in October 2015 are acknowledged. The audit objectives, audit criteria and audit methodology were communicated to the Government/Department in the entry conference. The audit findings with recommendations relating thereto were discussed with the Secretary, Mines, Commerce and Industries Department and DMG in the exit conference. Replies of Government/Department have been included in the relevant paragraphs.

Audit Findings

6.4.2 IT General Controls

IT General Controls (ITGCs) are concerned with the general environment in which the IT systems are developed, operated, managed and maintained. General controls include controls over system development, IT planning and operations, change management, business continuity and disaster recovery plans and information security. Through audit of ITGCs, it was sought to examine whether the DMG had framed its computerisation goals and successfully implemented procedures for achievement of the same.

Audit observed that controls related to oversight, change management and training of users were implemented. DMG had constituted a Steering Committee in April 2011 to oversee the computerisation activities of the Department. It also has documented procedures for effecting changes to the system. All change requests are scrutinized by the e-Cell and intimated to the application developer. Changes to systems are implemented after User Acceptance Testing by the e-cell at the Directorate.

With respect to training of users, one technical and one clerical staff at the district level office are identified as master trainees, trained on all modules and instructed to train their office staff and leaseholders in their jurisdiction.

The following inadequacies were, however, observed in the areas of program development, implementation, and business continuity planning.

6.4.2.1 System Development and Implementation

Application system development involves the translation of business requirements of the entity to appropriate system design specifications. To ensure that the final system satisfies the needs of the users effectively and efficiently, it is essential that the business requirements are properly analysed, documented and communicated to the system developer in a formal User/System Requirement Specification documents. Further, to derive optimum benefits from the system, it is also important that all users are properly instructed in the protocols of system usage. Audit observed that these controls were not effectively adopted by the Department resulting in several system deficiencies and continued dependence on manual processes as discussed below.
Administration of mineral extraction and transport

Audit observed that ILMS incorporated only a single process flow suitable for minerals where payment of royalty is linked to generation of bulk permits for transport of extracted ore by vehicle loads. Process variations involving other scenarios were not provided in ILMS since such requirements were not planned, documented and communicated formally to the application developer.

For example, in lime stone, where the extracted ore is transported directly to the factory floor by conveyor belts in cement industry, there is no requirement for generation of bulk permits. Hence the entire transaction involving this mineral was kept outside the ambit of ILMS till September 2014 when DMG finally resolved this issue by insisting on generation of one trip sheet per conveyor belt per shift.

Due to this, the Department was unable to reap the full advantage of the efficiencies possible through computerisation. Further, limestone being the second largest contributor to mineral revenue (after iron ore) in the State, by keeping the same outside the ambit of the software the Department could not achieve comprehensiveness in mineral administration.

Assessment of Leases

The DMG conducts periodic assessment of mines to evaluate the veracity of particulars declared in the returns submitted by the lease holders. For instance, in respect of building stone leases, working pit measurements conducted by DMG forms the basis of assessment of actual production. Based on the findings of such assessment, the figures of production, despatch, royalty and other levies to be paid etc., might be revised and will have a direct bearing on the ‘demand’ raised on the lease holder in the Demand, Collection and Balance (DCB) document.

Audit observed that ILMS does not have any provision for entry of results of such assessments. This is also one of the reasons for non-implementation of the DCB module of the software as discussed in paragraph 6.4.3.7 of this report.

During Exit Conference, the Government accepted the relevance of this observation and suggested that the DMG should design and incorporate a ‘Mine Audit Module’ as part of the ILMS.

Receipt and Accounting of Payments

Functions of the DMG include the levy and collection of royalty and other payments by lease holders and accounting for the same. Audit verified whether ILMS has mapped the relevant business rules in this respect and is otherwise equipped to offer adequate support to the Department in its administration of this function.

It was observed that ILMS does not offer the basic functionalities associated with the receipt and accounting of payments as evidenced by the following issues.
• **Generation of receipts**: ILMS has no provision to generate receipts/acknowledgements for payments received. Hence all payments received are acknowledged through manual receipts. It is therefore not possible to ensure that all payments are accounted for and consequently the system is ineffective in compiling receipt statements (like the cash book). The particulars of the same have to be entered into the system later for generation of Bulk Permits. This results in duplication of work and loss of efficiency.

• **Payments received from other Departments**: ILMS does not provide the facility to account for payments received through other entities which collect levies such as royalty deducted at source. For this reason, ILMS presents an incorrect picture of the amounts received in the district offices.

• **Payments of arrears and interest**: Audit observed that only payments which are required for generation of bulk permits are being routed through the ILMS. When lease holders make payments of arrears of royalty due (with interest thereof) for a period before the implementation of ILMS, the same is not entered in the system even though provision is available. This is due to the absence of specific directions regarding the same to the staff at district offices. This has also resulted in the ILMS not reflecting the true and fair view of all payments of leaseholders to DMG.

The DMG replied that, at present, ILMS e-permit module is purely for generation of bulk permits and that a separate e-payment module has been developed and is under process to be implemented in integration with the treasury automation system which is proposed to be introduced in the State. The reply does not address the issue raised in audit since financial transactions are an integral part of mineral administration and the generation of bulk permits itself. Moreover, the rationale involved in delaying the implementation of a payment module in anticipation of a different software in another Department is not justifiable.

**Recommendation No. 1:** The Department may ensure that all financial transactions are routed through the system to enable generation of receipts.

### 6.4.2.2 Discontinuance in m-Pass services

SMS based trip sheet facility for minor mineral leaseholders who are not able to have IT infrastructure at the mine head was implemented with effect from January 2012. This was to provide ease of operations by generating trip sheet by sending SMS from the registered mobile numbers. This was more relevant for minor mineral leases, especially building stone leases, which are essentially an unorganized sector and are located remotely. After shifting application and database servers to Karnataka State Data Centre in February 2015, the m-Pass system stopped functioning due to technical incompatibility. The Department has not initiated measures to re-establish the service as of November 2015.

During the exit conference, with respect to discontinuance of m-pass to leaseholders, DMG explained that the discontinuance was due to technical
issues in the virtual port network in the Karnataka State Data Centre and attempts were being made to resolve the same. Government directed DMG to re-establish m-pass services at the earliest and to consider building a new module if the technical issues were not resolved soon.

Recommendation No.2: The Department may expedite sorting out technical issues regarding m-pass to regulate the transportation of minor minerals.

6.4.2.3 Business Continuity and Disaster Recovery Plans

Business Continuity Plan (BCP) and Disaster Recovery Plan (DRP) are proactive planning measures that ensure that business processes and IT Infrastructure of an organisation are able to support business needs at the earliest even after any disaster or disruption.

It was observed that DMG did not have a documented BCP/DRP. Data of ILMS is hosted by the Karnataka State Data Centre (KSDC – under the Department of e-Governance, Government of Karnataka). However, there is no formal understanding with SDC about the specific requirements of DMG regarding the schedule and procedure of data and program back-up availability and requirements of offsite back-up sites and acceptable recovery times. There was no clear identification of critical functional areas and roles and responsibilities to implement BCP. The procedures of business impact assessment, documentation, testing of continuity plan, training of the concerned personnel were not implemented. This poses the risk of loss of data, loss of time and other costs in case of disruption and ineffective recovery, thus compromising business continuity.

During the exit conference, DMG informed that KSDC was in charge of BCP and DRP. On enquiry, however, it was ascertained that the DMG had not furnished the details of its backup requirements to KSDC even after a dispatch requisitioning the same was communicated to them.

Recommendation No. 3: The Department may develop a detailed plan of Business Continuity and specify its requirements regarding back up schedules, recovery times and offsite locations to the present custodian of ILMS data, that is, the Karnataka State Data Centre.

6.4.3 IT Application Controls

Application controls are procedures to ensure that transactions are properly authorised, valid data is processed, complete records are maintained and accurate reports for management information are generated.

Application control inadequacies observed with respect to each computerised business process is discussed in the following paragraphs.

6.4.3.1 Registration of stakeholders

CoMA intended to capture the database of all stakeholders, viz., lease holders, purchasers, stockists, vehicles used for transporting the mineral, etc., to enable complete monitoring of mineral extraction and movement till destination. Analysis of the registration of the stakeholders revealed the following:
Leaseholders

According to the relevant sections of the MMDR Act and the Rules framed, limits have been prescribed for the maximum area of lease to be held by a single lessee and the period for which a lease is held. Further, royalty is prescribed to be calculated on the basis of the rates specified for each mineral.

In this regard, we noticed that the above rules have not been mapped into ILMS as evidenced from the following:

- ILMS cannot detect and alert on the violation of the maximum area prescribed as limit. This is due to non-capturing of unique identification of each lease holder such as PAN or TIN\(^8\).
- ILMS does not mandatorily capture the validity of the lease. Out of the 11,923 leases registered, validity periods in respect of 114 leases were not recorded in ILMS. Absence of this control may give scope for continuing mining operations and generation of bulk permits even after expiry of lease period.
- ILMS does not have controls to mandatorily require the input of mineral types. Out of 11,923 leases registered, mineral details in respect of 72 cases are not available in ILMS. The system will not be able to calculate royalties in such cases.
- Details of survey number in which mining lease was granted were not captured in 1,386 cases. This would affect the ability of the system to aid the Department in its function of mineral administration through timely alerts on area/boundary overlaps and by failing to provide meaningful statistics and analysis.

During the exit conference, DMG stated that fields for PAN/TIN were incorporated in the registration module and have since been made mandatory. Government instructed Department to obtain and include Aadhar numbers of leaseholders in the database on voluntary compliance basis.

Stockists

Every leaseholder shall provide details of buyers, captured separately as a database of stockists in ILMS. It was noticed that unique identification parameters like PAN or TIN were not captured during this registration. There were 2 to 131 registrations in respect of 6,761 stockists. This has resulted in duplicate registrations of the same business entity as different stockists for every purchase made from different leaseholders, compromising the effectiveness of the system as a facilitator of hassle free and transparent mineral administration.

After this was pointed out, DMG reported that PAN/TIN is now being made mandatory for stockist registration.

\(^8\) PAN – permanent account number issued by the Income Tax Department, TIN – Taxpayers Identification Number issued by Commercial Taxes Department
Vehicles

Every leaseholder has to register details of the transport vehicles used by him, with vehicle number and tare\(^9\) weight, in ILMS. The leaseholder can generate trip sheets only for the vehicles so registered by him. Analysis of the vehicle database revealed the following:

1. Data integrity in respect of registration number of vehicles has not been enforced through specific validation controls and, as a result, vehicle numbers are not captured in a uniform format. This restricts the ability of the system to identify each vehicle uniquely and prevent multiple registrations with different parameters. It was observed that many vehicles have been registered from 2 to 100 times in the ILMS. It also prevents the system from enforcing restrictions on concurrent trip sheets being issued in respect of the same vehicle.

2. Different tare weights are registered by different leaseholders for the same vehicle. There are 13,777 instances where the same vehicle is registered more than once with different tare weights. Since trip sheets are generated automatically by the system by subtracting the tare weight from the laden weight measured at the weighbridge, this would result in inaccurate quantities being represented in the same.

During the exit conference, Government directed DMG to address the issue expeditiously.

**Recommendation No.4:** The Department may mandate the registration process of the vehicles as a duly authorized one-time procedure with proper standard documentation (such as certificates issued by the manufacturer) along with a provision for the periodic revision of tare weights due to wear and tear.

6.4.3.2 Annual Mining Plan (AMP)

Section 5 of the MMDR Act, and Rules made thereunder, requires all lease holders to submit, in advance, a Mining Plan depicting the quantity, type and other details of ore that is planned to be extracted. This is a regulatory measure by which the Department and other bodies responsible for mineral administration and environmental protection can exercise adequate controls in the interest of sustainable mining. Mining Plan quantities submitted by the lease holders to the DMG are to be vetted and cleared independently by the Indian Bureau of Mines (IBM), the Pollution Control Board (PCB), the Ministry of Forests and Environment, and the Government of India (if the mining lease is in forest land). The Rehabilitation & Reclamation section of the DMG is also required to vet the Mining Plan in respect of iron ore leases.

It is not necessary that all the above mentioned Departments would approve the mining plan with the same annual quantity of extraction and hence, ILMS provides the facility to enter the different quantities approved by each Department with respect to each mining plan submitted by lease holders for a given year. Where the mining plan is for more than a year, for each subsequent year, the system automatically adopts the same quantity as the previous year. If the lease holder submits a revised mining plan for any

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9 Unladen weight of the vehicle
period, vetted and cleared by the relevant Departments, the same may also be updated in the system.

The regulatory function of the mining plans is enforced in ILMS through automatic restriction of the production and despatch of ore by a lease holder in a year to the quantity approved for extraction in the mining plan for the same year (plus any undespached quantity left over from the previous years). Audit examined the efficacy of controls in-built in the application to ensure effectiveness of this regulatory function. Audit observed as under:

1. In 18 mining plans, restrictions imposed by none of the above Departments were available in ILMS. This compromises the ability of the application to exercise adequate control to ensure sustainable mining.

2. In the event of revision of an existing mining plan, instead of facilitating revision of the existing quantity, the system requires creation of a new mining plan record. Further, instead of restricting the quantity of production and dispatch to the quantity in the revised plan, ILMS allows the aggregate quantities of all the revised and pre-revised plans to be produced and dispatched. Similar aggregation happens also when the system automatically adopts quantities from the previous mining plan for a year and lease holder submits a revised plan for the year.

For instance, for lease number EA 2290 for the year 2013-14, there were a total of 8 AMP records with an aggregate quantity of 7,64,001 Metric Tonnes (MTs). Audit noticed that the approved mining plan quantity for the year was only 2,76,000 MTs, the balance being the quantity that the application auto-generated for the year. It was also noticed that though bulk permits were generated only for the approved quantity of 2,76,000 MTs, the application permitted production entry of an additional 4,000 MTs. Actual instances of issue of bulk permits in excess of the aggregate AMP quantities were not observed as the same is also manually scrutinized by the e-Cell.

3. Controls to correlate validity of mining plans with lease tenures were absent in the application. Hence, the system accepts validity periods of the mining plans beyond the tenure of the lease itself. In 4,193 out of 13,247 Mining Plans (31.65 per cent), the validity of the same were beyond the period of the leases. After this was pointed out, the DMG stated that there was no risk of mineral extraction beyond the lease validity as the transaction privileges of generating bulk permit/tripsheets etc based on AMP would be unavailable in the login of the leaseholder on expiry of the lease tenure. However, the system would be unnecessarily generating invalid mining plans year after year for leases that do not exist (in some cases upto the year 2051 as the data shows). Further, if the leases are continued or taken over by other parties, the system, as it exists now, would aggregate the actual Mining Plans and the older ones for this period.

During the exit conference, the Government accepted that an approval mechanism for AMP is required in ILMS. DMG stated that the application developer had been instructed to design the Mining Plan so that at a given
time, only one valid Mining Plan is active in the system for a leaseholder with modifications to be incorporated for the same.

**Recommendation No.5:** The system design for AMPs may be suitably modified to permit revision of approved quantities under proper authorisation and due deactivation of the earlier AMP.

### 6.4.3.3 Production of mineral ore

ILMS has a module for leaseholders to enter the details of their production periodically. The production details provided by the leaseholder are approved automatically by ILMS within the limits set by the quantity in the approved AMP for the relevant year. At the end of the year, quantity produced against which bulk permits have not been generated is the opening balance available for generation of bulk permits during the next year.

**Updating of production data after lapse of the relevant year**

ILMS does not permit a leaseholder to enter production for a year in excess of the quantity represented in his mining plan for that year. However, if he has produced less than the mining plan quantity for any year, he is not restricted by the software from entering a later production against that year. This additional quantity entered as production against a previous year is automatically approved by ILMS and is made available as opening balance that can be dispatched even after the mining plan quantity is exhausted for any subsequent year.

During the exit conference, DMG stated that corrective action had since been implemented.

**Design deficiency restricting mineral dispatch**

The total quantity of ore excavated is called ‘run-of-mine’ (RoM). This, being the quantity actually dug out of a mine, is the one that is represented in the mining plan. In the case of iron ore, the entire RoM is not fit for despatch. It is further refined into fines, lumps etc., and the same is transported. Hence, the quantity for which bulk permits are required is usually lesser than the quantity produced.

In this connection, Audit observed that ILMS does not provide for entry of RoM and refined quantities separately. By entering the quantities of fines/lumps extracted out of the excavated RoM as his production, a leaseholder is thus enabled to despatch a quantity effectively greater than what he is permitted as per his approved mining plan.

On the other hand, if a leaseholder extracts RoM as per approved quantity of the AMP but does not process the entire RoM in the year in which it is extracted and processes the balance RoM in the subsequent year, he will be reporting production in the subsequent year for dispatch of mineral. This will have the impact of reducing his production quantity from the approved quantity of AMP for the current year. Therefore, if the leaseholder processes carry over RoM and entire RoM of current year, the system will not allow him to report production and generate permits.

During the exit conference the Government stated that RoM functionality is under development and will be implemented.
6.4.3.4 Control inadequacies in payment module

Payments are made by the leaseholders towards royalty, Tax Collected at Source (TCS) (towards Income tax), processing fees etc through cash, challan, DD or cheque. The payments are entered into the ILMS. Analysis of the database of payments in ILMS revealed the following:

1. In case of cash payments, ILMS captures data post cash collection through manual receipts. Hence, ILMS does not have the receipt number except in cases where data entry is made under Remarks column.

2. Out of 51,470 cases of payments by DDs/ Cheques, it was noticed that in 123 cases with monetary value of ₹ 1.27 crore, the instrument date was much before the receipt date and the difference ranged between 91 days to 1,011 days. This indicates that the system does not have preventive controls to refuse acceptance of time barred instruments (validity of DDs/cheques is 90 days). Further, 387 payments involving ₹ 5.97 crore were by way of post dated cheques.

3. ILMS has ‘edit’ and ‘delete’ options for payment data to rectify errors during the course of data entry. However, the system does not incorporate controls by which such modifications are required to be approved by a higher authority. Further, it does not maintain an audit trail of such modifications.

   It was observed that in 983 cases (including 776 cases of payments for auctions) involving monetary effect of ₹ 748.64 crore, payment data has been subsequently modified. The time difference between the original payment entry date and modified date ranges from one day to 561 days. Thus, control inadequacies in the system undermine its ability to exert the mandatory controls over finance administration. It is not equipped, in such an eventuality, to prevent deliberate modifications with malafide intentions.

4. It was observed that the application has no controls to prevent duplicate entry of the same instrument. Analysis of database revealed 741 duplicate entries of the amount vide same instrument number in the ILMS in respect of royalty payments. These duplicate entries were in respect of either the same lease or different leases. These royalty credits were either utilised in generation of bulk permits or available as credit balance which can be used in the future. The monetary value involved in these cases is ₹ 35.49 crore. Of this, ₹ 11.78 crore was reflected as credit balance in the account of the leaseholder.

During the exit conference Government/DMG accepted the audit observations and agreed to incorporate necessary controls in ILMS.

Recommendation No.6: The Department may incorporate validation controls in respect of receipt date vis-à-vis instrument date, approval for data modification and controls to prevent repeated use of same instrument towards different types of payments for securing financial management.
### 6.4.3.5 Mineral Despatch Release Orders (Bulk Permits) and Mineral Despatch Permits (Trip sheets)

To obtain bulk permits for despatch of minerals from the leased areas, the leaseholder has to apply for the same through the system by furnishing the details of the buyer, destination, route, and distance between source and destination. The office of the Deputy Director/Senior Geologist, DMG of the district concerned will authorise the bulk permit through the system after verifying payment of royalty, processing fee and TCS. ILMS does not permit generation and approval of a permit without due realisation of these payments. Trip sheets can be generated for the quantity for which bulk permit is approved. DMG has successfully provided e-services by way of online application and approval for permits and requests for change in approved permits. Specific control issues in these modules are discussed in the following paragraphs.

#### Validity of Mineral Dispatch Permits (Trip sheets)

Trip sheets are generated based on the bulk permit. The validity of the trip sheet is system-calculated based on the distance between source and destination as per the approved bulk permit. In this connection the following observations were made:

- In ILMS a trip sheet stays valid even when the trip has ended as evidenced by another tripsheet being generated for the same vehicle with the earlier permit still in currency. There were 24,118 instances out of 9,10,468 trip sheets which were generated for the vehicle even while the validity of a previous trip sheet was still current. Further, of these, in 269 cases, trip sheets in respect of same vehicle had been generated by different leaseholders within 10 minutes of each other even though the distance mentioned in the trip sheet was more than 30 kilometers. Since this indicates that a different vehicle had obtained the trip sheet, the Government may conduct an investigation into the reasons and consequences of such a lapse.

- In respect of mineral dispatch by rail, the lease holder has to generate trip sheets for transportation of mineral by road to railway yard and acknowledge the trip sheet on receipt of mineral at the railway yard and thereafter apply for RAKE\(^{10}\) permit. It was noticed that the validity of the trip sheet for transporting the mineral from the mine to railway yard is the same as that of the bulk permit, which is for the entire journey including rail journey time. This poses the risk of reuse of the trip sheets to transport mineral by road, for which no royalty has been paid.

- In respect of cases where the lease holder needs to move the mineral from the lease area to a stockyard before dispatch to the buyer, facility of generating trip sheets in two phases (from mine to stockyard and from stockyard to the final destination) has been provided. Here also it was observed that the trip sheets used to transfer mineral to stockyard

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\(^{10}\) As per the Karnataka Prevention of Illegal Mining and Transportation Rules 2011, every vehicle carrying mineral ore should be covered by a permit. Accordingly, DMG issues RAKE permit in respect of mineral transportation through rail.
have the same validity as to be assigned for the entire route, posing, as stated above, the risk of reuse of the trip sheets.

**Recommendation No.7:** The Department may ensure that the validity of trip sheet should terminate on generation of another trip sheet for the same vehicle or on its receipt at the railway yard or the stockyard to prevent the risk of reuse.

**Rake permits**

In accordance with the provisions of the Karnataka Prevention of Illegal Mining and Transportation Rules 2011, DMG issues ‘rake’ permits in respect of mineral transportation through rail. Based on the approved bulk permit, the lease holder initially generates trip sheets for road transfer of mineral to designated railway yard. Only when the entire bulk quantity of the mineral has reached the railway yard will ILMS enable generation of a rake permit for loading it on to the rake allotted.

In this context, the mention of Hon’ble Lokayukta Report on “Illegal Mining in Karnataka” assumes relevance as the same had pointed out that the quantity of iron ore transported through Railways was in excess of the total permit quantity issued in certain cases during the period 2006-2011 and the Report recommended reconciliation of the records of railway and the permits issued by the Mines Department.

It was, however, observed that the acknowledgment of receipt of each tripsheet at the railway yard is done by the lease holder himself, with no authentication of the same either through the RFID system or by the Railway authorities. Acknowledgement by the leaseholder himself for approval of rake permits is susceptible to misuse viz., the possibility that the entire quantity of mineral (specified in the bulk permit) is actually not received at the railway yard and is transported otherwise to other than the designated destination. There are also no mandatory instructions to furnish details of the railway receipt and upload the same to ILMS.

**Recommendation No.8:** The approval of the rake permit may be automated based on RFID acknowledgement of the material at the Railway Yard and integration with railway data.

Government agreed with Audit recommendations in this regard during the exit conference.

**6.4.3.6 e-Returns**

As per MMDR Act, every leaseholder has to submit a return monthly or quarterly and also furnish, every year, details of production, dispatch, closing balance of stock and payment of royalties.

Audit assessed the controls in ILMS to ensure correctness of figures reported in returns vis-à-vis the production, permits and payment details in the ILMS.

**Mis-match of data between permit and return modules**

Cross-verification of production details submitted in the monthly e-return vis-à-vis production details uploaded in permit module of the ILMS for generation of bulk permits revealed that the system permits reporting of lesser production
than already approved by the ILMS for the bulk permits. In respect of 909 monthly returns, the difference between production figures in e-returns and ILMS permit data was 2.18 crore MTs. Similarly, in 168 cases, the difference between production figures reported in the annual return and ILMS permit data was 1.78 crore MTs.

After this was pointed out, DMG stated that the e-return was designed to initially fetch information from permit module with edit option provided for the leaseholder. It was also stated that it was the leaseholder’s responsibility to insert production data in ILMS in a timely manner to avoid swapping of data between months.

The reply is untenable since there is no case for the edit option once the leaseholder has already declared his quantity of production through the production module of ILMS. The facility to alter these figures in the return module without reference to the figures given in the production module puts the credibility of the returns under question. Hence, Audit is unable to appreciate the rationale of lease holders being given the option to edit production figures in the returns.

Mismatch between monthly and annual returns

Cross-verification between figures of production and despatch as reported in monthly returns vis-à-vis annual return revealed cases of mismatch as given below:

<table>
<thead>
<tr>
<th>Number of cases</th>
<th>Category of mis-match</th>
<th>Range of mis-match (in metric tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Production figures</td>
<td>(-) 36 to (-) 88,554</td>
</tr>
<tr>
<td>24</td>
<td>Dispatch of mineral figures</td>
<td>(-) 295,169 to (+) 33,549</td>
</tr>
</tbody>
</table>

Audit observations and recommendations were accepted by the Government during the exit conference.

Recommendation No.9: The referential integrity may be established between the production, permit and monthly and annual return modules and edit option be disabled.

6.4.3.7 Demand, Collection and Balance

Audit assessed the efficacy of the ILMS in generating the DCB for the DMG. As the DCB module was not made use of as of March 2015, Audit reviewed the process documentation for the DCB module and compared the same with manual DCB preparation. DMG stated that DCB is operationalised from 2013-14; however due to modifications and changes required from the field offices, rectification was under process. However, the DCB module for the data obtained on 10 February 2015 was not complete for 2013-14. The following observations are made:

1. The DCB has been designed to generate Taluk-wise quarrying leases and mining leases reports. District-wise and State DCB register have not been implemented, necessitating manual compilation for these reports. After this was pointed out, DMG stated (October 2015) that generation of these reports would be enabled.
2. DCB has been designed to fetch production, dispatch and payment details from ILMS Permit Module. However, edit options have been provided to update the figures without systemizing the reasons for manual intervention. The design does not provide for approval of another authority for manual modifications. This defeats the purpose of computerization.

During the exit conference, the audit observations were accepted and the DMG stated that the DCB module had been revamped with modifications based on field office requests and would be used in the future. Government instructed the DMG to finalise timeline for implementing the modified DCB module.

### 6.4.3.8 Beneficiation plants

Beneficiation units (enrichment plants) receive mineral and sell them after beneficiation (upgrading of ore grade). In order to have a control over mineral movement and curb illegal mining, DMG has computerised the process of receipt of ore by these beneficiation plants through a web-based interface to ILMS.

**Mis-match in quantity of mineral received by beneficiation plants**

Through the web-based interface the registered beneficiation plants are required to acknowledge receipt of ore from the lease-holders on real time basis. Acknowledgement of tripsheets generated in ILMS for receipt of mineral from leaseholders within the State (online mode) and uploading of details for receipt of mineral from outside the State (offline mode) is provided.

It was, however, noticed that the system does not prevent acknowledgement of ore received from within the State in the offline mode. As per ILMS database, lease holders were uploading details of ore received from within the State in the offline mode in which case the DMG cannot track mineral movement to beneficiation plants effectively since the offline mode does not require acknowledgement of tripsheets generated in ILMS. This has restricted the ability of the system to establish a one-to-one linkage between quantities of ores dispatched from mines and those received at the beneficiation plants.

Further, it was also observed that the total quantity of ores acknowledged by beneficiation plants is considerably higher than the amount shown as dispatched from the mines (aggregate of all the trip sheet quantities shown as delivered to beneficiation plants). On further analysis, it was found that the difference occur in the offline acknowledgement and not online. This is demonstrated in the following table for various minerals.
Table 6.4
Acknowledgement of ore by beneficiation plants

(Quantity in Metric Tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Trip sheets in ILMS</th>
<th>Received Quantity (Offline)</th>
<th>Received Quantity (Online)</th>
<th>Received Quantity (Total)</th>
<th>Difference in Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (4+5)</td>
<td>7 (3-6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRON ORE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14</td>
<td>3,24,113.02</td>
<td>8,02,518.30</td>
<td>2,22,194.20</td>
<td>10,24,712.50</td>
<td>-7,00,599.48</td>
</tr>
<tr>
<td>2014-15</td>
<td>10,10,061.20</td>
<td>1,770.00</td>
<td>6,21,333.26</td>
<td>6,23,103.26</td>
<td>3,86,957.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOLOMITE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14</td>
<td>2,491.49</td>
<td>983.20</td>
<td>2,481.11</td>
<td>3,464.31</td>
<td>-972.82</td>
</tr>
<tr>
<td>2014-15</td>
<td>6,565.18</td>
<td>5,164.59</td>
<td>4,864.59</td>
<td>10,029.18</td>
<td>-3,464.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIME STONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14</td>
<td>1,000.00</td>
<td>3,157.00</td>
<td>1,000.00</td>
<td>4,157.00</td>
<td>-3,157.00</td>
</tr>
<tr>
<td>2014-15</td>
<td>14,314.03</td>
<td>6,537.47</td>
<td>14,055.44</td>
<td>20,592.91</td>
<td>-6,278.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHROMITE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14</td>
<td>15,148.00</td>
<td>2,600.00</td>
<td>14,956.00</td>
<td>17,556.00</td>
<td>-2,408.00</td>
</tr>
<tr>
<td>2014-15</td>
<td>14,606.00</td>
<td>0</td>
<td>14,254.00</td>
<td>14,254.00</td>
<td>352.00</td>
</tr>
</tbody>
</table>

Source: ILMS database

The above difference points to the possibility of movement of ore without trip sheets to beneficiation plants and thus needs to be investigated.

During the exit conference, the Government directed DMG to analyse the difference in figures and initiate necessary action.

**Recommendation No.10:** The Department may ensure acknowledgement of mineral received from within the State by acknowledgement of trip sheets at beneficiation plants and use the offline mode of acknowledgement only for mineral received from outside the State.

**Availing of royalty credit in respect of mineral received from other States**

The Beneficiation Plant is allowed to take credit of the royalty amount paid on the mineral received. After adjusting the royalty amount of the received material, the beneficiation plant has to pay the difference of royalty, if any, due to increase in grade of ore before bulk permit is approved. In this connection, it was noticed that ILMS allows availing credit of royalty on mineral received from outside the State also. This is incorrect as no royalty is realised by the State of Karnataka in these cases.

6.4.4 Achievement of Objectives of Computerisation

One of the objectives of computerisation of DMG was to reduce illegal mining. To this end, the Department sought to implement the Radio Frequency Identity Detection (RFID) system. According to the proposed plan, RFID readers at entry/exit points of lease allow only authorized vehicles into lease area and ensure that vehicles leave the lease area after generation of trip sheets. Tracking of vehicle movement was planned to be enforced through installation of RFID readers at checkpoints and use of hand held terminals by
DMG personnel. RFID readers at buyers’ premises, where mineral movement comes to an end, completes the cycle of monitoring. A web interface to DMG was to help monitor violations, if any.

Further, DMG also planned for a system of computerised checkposts interacting with the ILMS to ensure that mineral movement is closely monitored.

Audit observed that these objectives of computerisation were not achieved effectively on account of several implementation issues as brought out in the subsequent paragraphs

6.4.4.1 Inadequacies in RFID implementation.

The RFID vigilance system has been implemented only for iron ore at present. The system requires all registered vehicles to carry RFID tags which can be automatically detected and read by the RFID readers fitted at the entry and exit points of lease areas.

It was observed that the DMG has not insisted on the entry/exit points of lease areas to be fitted with boom barrier/CCTV surveillance. This defeats the objective of the surveillance system as any vehicle not carrying an RFID tag can enter and exit the lease area without detection. Further, the application developer had insisted that all RFID tags may be obtained from them and from no other provider. The data captured by the RFID readers are currently communicated to the server in the custody of the application developer. The Department failed to specify at the outset that the ownership and custody of the data should be with itself. Even after implementation, DMG has not obtained the data from the agency. Web interface has also not been provided to DMG. Thus, DMG has been unsuccessful in its declared intention of achieving real-time monitoring of mineral movement.

The RFID vigilance system is also not functional in its entirety at present, i.e., the system has not been established for minerals other than iron. The DMG is thus not in a position to monitor all mineral carrying vehicles through RFID interface in a holistic and complete manner.

Recommendation No.11: The Department may strengthen RFID vigilance through establishment of boom barriers/CCTV surveillance and obtaining RFID data and integrating the same with ILMS.

During the exit conference, Government instructed that procurement of RFID infrastructure from the application developer should not be enforced and that necessary action to integrate the infrastructure obtained by the leaseholders may be initiated.

6.4.4.2 Inadequacies in computerised vigilance through checkposts

Under checkpoint computerisation as a scheme to monitor mineral movement, every checkpost was to be installed with a Windows based application integrated with the centralized ILMS system, as well as with the weighbridges to verify real time data of the trip/vehicle with the data stored in the centralized server (from May 2013). Audit, however, has observed as under:
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- The system will be effective only if all checkposts are computerized. Audit observed, however, that at present, only four out of the 17 checkposts operated by DMG are computerised and that the Department has no definite plan documenting time lines and details of implementation for computerisation of the rest.
- The vigilance system was designed with a view to ensure that the checkpost will verify the trip sheet details by integration with ILMS and log the time stamp of check post clearance in ILMS. It was, however, noticed that the same in respect of only about three lakh trip sheets were captured in ILMS from May 2013 as against 31.51 lakh trip sheets generated in ILMS.
  The route configurations are so planned as to ensure that mineral carrying vehicles pass through a checkpost. In the absence of checkpost data, however, the validation of the vehicle adhering to the configured route cannot be ensured in monitoring movement of mineral carrying vehicles.
- It was noticed that continuous internet connectivity at the checkposts could not be ensured. During downtime of internet, the checkposts resort to manual registers to note down the details of vehicles passing the checkposts. Thus, the database is incomplete and cannot be used for intelligence analysis.

After the above audit observations were pointed out, DMG stated that seamless internet connectivity through KSWAN was being planned in collaboration with Centre for e-Governance, Government of Karnataka.

During the exit conference, DMG informed that necessary action plan for computerisation of all checkposts would be finalised.

Recommendation No.12: The Department may expedite the computerisation of all the checkposts in the state, improve network connectivity through establishment of alternate channels and enforce vigilance through system based cross verification of trip sheets and mineral quantities issued, recorded at checkposts and recorded at beneficiation plants. As an interim measure, at currently non-computerised checkposts, scanning the Quality Code\textsuperscript{11} of the trip sheet may be considered to enable porting the same to ILMS subsequently.

6.4.5 Conclusion

The DMG computerised its functions to realise its mandated objectives. While the Department has been successful in bringing about a measure of efficiency in mineral administration and facilitation of e-services to stakeholders through linking the issue of permits with the Mining Plan and enabling online filing of production data and issue of online permits, several issues related to lack of planned development and implementation has limited its ability to take advantage of the possibilities offered by computerization. For want of adherence to the formal requirements of planned system development, the system lacked the ability to manage different process flows specific to the State, failed to furnish the full functionalities of financial accounting, and did

\textsuperscript{11} This is a hologram on the Special Security Paper on which trip sheets are printed.
not provide all the necessary application controls. Even when the system provided functionalities like DCB, due to inadequacies in application controls, the same could not be used fully. Similarly, failure to ensure the installation of boom barriers at mine head entry/exit points, obtain RFID data and effect complete computerisation and integration of all the check posts has limited the Department’s ability to act in an effective way towards reducing illegal mining.
Rule 3 of the KMMC Rules, 1994, stipulates that no person shall undertake any quarrying operation in respect of any minor mineral in any land except in accordance with the terms and conditions of a quarrying lease, licence or quarrying permit granted under the Rules. Besides, Section 21(5) of the MMDR Act, 1957, states that whenever any person raises any mineral without lawful authority from any land and disposes of such mineral, then the State Government may recover price of the mineral from such person along with royalty and rent for the period during which the land was occupied by such person. In addition, Rule 44(3) of KMMC Rules, 1994, stipulates that any person who undertakes any quarrying operation in respect of the minor mineral without a licence or lease is liable to pay a penalty of Rs.5,000/- or value of the mineral, whichever is higher.

Further, according to Rule 42(1) of KMMC Rules, 1994 read with Part-V Clause-4 of the quarry lease deed, the quarry lease holder shall not transport any minor mineral without MDP and in case of non-compliance, will be liable for penalty at five times of royalty.

During test check of records in the office of the DD, Hosapete in Ballari District during February 2015, audit noticed from the field inspection reports prepared by Geologists that during the year 2013-14, four quarry lease holders of building stone had carried out quarrying activities outside their leased boundaries and transported 25,533.32 MTs out of such irregular extraction. Audit also noticed that such transportation was carried out without obtaining MDP.

As per the provisions applicable in such cases, value of the mineral and royalty were to be recovered for irregular extraction along with penalty at five times of the royalty for transporting the mineral without MDP. Also, as penalty, value of the mineral being higher than ₹5000, the same has to be made liable for payment.

On verification of the Annual Audit Reports, Audit noticed that these penal provisions have not been invoked for breach of the lease boundary and for transportation of minerals without MDP. Resultant non-levy of royalty, value of mineral and penalty at five times of royalty works out to ₹61.20 lakh as detailed below:
Table 6.5  
Penalty on irregular quarrying of building stone  
(₹ in lakh)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Quarry Lease Number</th>
<th>Quantity extracted outside the lease area (MT)</th>
<th>Recovery of Value of mineral @ ₹30/ per MT U/s 21(5) MMDR Act</th>
<th>Royalty @ ₹30 per MT</th>
<th>Penalty @ ₹30 per MT Under Rule 44(3) KMMC Rules</th>
<th>Penalty at five times royalty</th>
<th>Total levy</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
<td>(f)</td>
<td>(g)</td>
<td>(h)</td>
</tr>
<tr>
<td>1.</td>
<td>QL.No.339</td>
<td>11,046.00</td>
<td>3.31</td>
<td>3.31</td>
<td>3.31</td>
<td>16.55</td>
<td>26.48</td>
</tr>
<tr>
<td>2.</td>
<td>QL.No.385</td>
<td>3,010.00</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>4.50</td>
<td>7.20</td>
</tr>
<tr>
<td>3.</td>
<td>QL.No.368</td>
<td>9,205.00</td>
<td>2.76</td>
<td>2.76</td>
<td>2.76</td>
<td>13.8</td>
<td>22.08</td>
</tr>
<tr>
<td>4.</td>
<td>QL.No.341</td>
<td>2,272.32</td>
<td>0.68</td>
<td>0.68</td>
<td>0.68</td>
<td>3.4</td>
<td>5.44</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>25,533.32</strong></td>
<td><strong>7.65</strong></td>
<td><strong>7.65</strong></td>
<td><strong>7.65</strong></td>
<td><strong>38.25</strong></td>
<td><strong>61.20</strong></td>
<td></td>
</tr>
</tbody>
</table>

After these cases were brought to the notice of the Department in April 2015 and referred to Government in July 2015, an amount of ₹7.17 lakh was collected from the four lessees. Further, it was reported that the penalty of five times royalty is not applicable in these cases as the mineral was illegally quarried and issue of MDP does not arise for illegally quarried material. Consequently levy of penalty is not applicable for not obtaining MDP. Department added that the provision applicable for such quarrying is Rule 44 which stipulates the payment of value of the mineral.

Reply with respect to non-applicability of penalty of five times of royalty is not acceptable as the same is applicable to a quarry lease holder who transports minor mineral without MDP. The cases reported pertain to lease holders and transportation of mineral without MDP. Hence the violation is liable for the levy of penalty.

In addition, the payment of the value of the mineral as specified in the rule 44 (3) of the KMMC Rules may not serve as a deterrent for such violations due to the non revision of the cost of the mineral prescribed in Schedule-III of the Rules. The rates have not been revised since 1994 and are very low compared to the current market value.

### 6.6 Non-levy of penalty for transportation of minor minerals without MDPs

According to Rule 42(1) of the KMMC Rules, 1994, no person shall transport, or cause to be transported, any minor mineral, except under or in accordance with an MDP. Additionally, as per Part-V, Clause-4 of the quarrying lease deed, the lease holder will be liable for penalty at five times of royalty for transporting minor mineral without obtaining MDP.

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12 As per Schedule-III under KMMC Rules, 1992 the minimum rate specified for building stone is Rs.30/- per MT and the same is adopted for computation of the value of the mineral.
13 As per Schedule-II of the KMMC Rules, 1994, the royalty leviable for building stone is Rs.30/- per MT
Test check of records in the four\textsuperscript{14} DD offices and eight\textsuperscript{15} SG offices of the Department of Mines and Geology between October 2014 and February 2015 revealed that 78,70,614.88 metric tones (MTs) of building stone, 30,045 MTs of murram and 2,41,871 square meters of shahabad stone were transported without obtaining MDPs. The Department, however, levied royalty on the quantity of mineral thus found to have been transported against the provisions of the law, and failed to invoke any penal provision. As enabled by the provisions of the lease agreement between the Government and the lease holder, the Department should have levied a penalty, as stated earlier, of five times the royalty, amounting to ₹ 118.75 crore.

After these cases were brought to the notice of the Director, Mines and Geology during April 2015 and referred to Government in July 2015, it was stated that Rule 42 of KMMC Rules, 1994, is not applicable in respect of non-specified minor mineral by virtue of Rule 31 of said Rules, which states that “the provisions of Rules 6, 7, 8, 19 (19A, 20) and Rules 35 to 41 shall mutatis mutandis apply to quarry leases granted or renewed under Chapter-IV\textsuperscript{16}”. The reply also states that rules 43 to 46, which come under Chapter VII of the KMMC Rules, alone are applicable for violations of conditions of transportation in respect of non-specified minor minerals. Further, the reply also points out that the scientific method of pit measurement of quarry leases is the control exercised by DMG over quarrying operations and the payment of royalty.

The reply is, however, not acceptable as Rule 42(1) of KMMC Rules, 1994, states that for transportation of any minor mineral, MDP is to be obtained. In addition, Rule 42(2) requires any person, desiring to transport minor minerals, to apply in Form-AP for MDP/Trip sheet “for specified or non-specified minor mineral” to the competent authority concerned. The specific mention of non-specified minerals under Rule 42(2) clearly establishes the applicability of Rule 42 to non-specified minerals. Further, the stand of the Department regarding non-applicability of MDP contradicts with the claim of applicability of Rule 43. Rule 43(2) states that every driver or person in charge of a vehicle carrying minor mineral shall be in possession of a valid permit, which clearly establishes the need for a permit for the purposes of enforcement.

With regard to scientific pit measurement, audit agrees that it is an effective control over the production of minor mineral. However, the issue of MDP still becomes a necessity for ensuring control over transportation of mineral which is vital for enforcement activities of the Department.

\textsuperscript{14} Chamarajanagara, Hospet, Kalaburgi and Tumkur.

\textsuperscript{15} Davanagere, Dharwad, Hassan, Kolar, Koppal, Mandya, Mysuru and Raichur.

\textsuperscript{16} Chapter IV of KMMC Rules, 1994 deals with the grant of quarry leases for non-specified minor minerals.
6.7 Short levy of royalty due to non/incorrect adoption of sales price of minerals

According to Section 9(2) of the MMDR Act, 1957, the holder of a mining lease shall pay royalty in respect of any mineral removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased area at the rate specified in the Second Schedule in respect of that mineral.

Rule 64-D(1)(i) of the MC Rules, 1960 provides for the computation of royalty in respect of all non-atomic and non-fuel minerals where the same is chargeable ad valorem on the basis of the State-wise sale prices published by Indian Bureau of Mines (IBM). In case this information for a particular month is not published by the IBM, the latest information available for that mineral in the State has to be referred, failing which the latest information of sale price published for all India for that mineral shall be referred.

(a) Non-adoption of sale price of minerals published by IBM

During test check of records in the office of the DD, Mines and Geology, Kalaburgi during December 2014 and March 2015, Audit noticed that Associated Cement Companies Limited (ACC), Wadi, a mining lease holder for shale, had produced and transported 25.99 lakh MT of shale between the years 2010-2011 and 2013-2014. Though the rate of royalty applicable for shale was 10 per cent of the sale price on ad valorem basis as per Second Schedule of the Act, it was collected at the rate of five rupees per MT. Hence non-adoption of sale prices published by IBM resulted in short levy of royalty of ₹ 91.71 lakh.

After this case was brought to the notice of the Department in April 2015 and referred to Government in July 2015, notice was served by the officer concerned to the lessee demanding the difference of royalty pointed out by Audit (November 2015).

(b) Incorrect adoption of sale value of mineral

During test check of Annual Audit Reports in the office of the SG, Mysuru and Davangere during November 2014 and February 2015, Audit noticed transportation of 50,464 MT of manganese ore by one lessee and 25,902.26 MT of magnesite ore by three lessees between the years 2011-12 and 2013-14. In all these cases, audit noticed that the mineral was despatched in the months subsequent to the months of issue of MDPs and sale prices of those months were to be applied for the computation of royalty. Though royalty was charged at ad valorem rates prescribed in the Second Schedule, the sale prices published by IBM for the month of issue of MDPs were considered for the computation of royalty instead of the prices published for the month of despatch/removal of the mineral. Such incorrect adoption of sale price by the SGs concerned resulted in short levy of royalty of ₹ 22.59 lakh.

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17 Mining Lease No.1949
18 The sale price published by IBM for all India was considered for calculating royalty.
19 M/s Bharath Parikh and Company (Mining Lease No.2571)
20 M/s. Mysore Minerals Limited (Mining Lease No.2495), Sri. N.Rajashekar (Mining Lease No.2484) and M/s. Mysore Minerals Limited (Mining Lease No.2174)
After these cases were brought to the notice of the Department in April 2015 and referred to Government in July 2015, an amount of ₹ 2.92 lakh was collected in respect of the three lessees of magnesite ore and notice was served by the officer concerned to the lessee of manganese ore demanding the difference of royalty pointed out by Audit (November 2015).

6.8 Non-levy of royalty and penalty on shortfall of stock

Rule 36 of the KMMC Rules, 1994, stipulates that the holder of a quarrying lease or licence shall pay royalty on minor mineral removed or consumed at the rates specified in Schedule-II of the Rules. Rule 42 of the KMMC Rules, 1994 read with Part-V Clause-4 of the quarry lease deed states that no person shall transport any minor mineral without an MDP and the quarry lease holder will be liable for penalty at five times of royalty in cases of non-compliance in this respect.

(a) Short fall in stock at the time of inspection

During test check of records in the office of the DD, Hosapete in Ballari District between January 2015 and February 2015, audit found from the pit measurements recorded in the inspection reports prepared by the Geologists that the production of mineral in respect of five building stone quarry leases for the period from 2008-09 to 2014-15 (till the date of inspection during the year 2014-15) amounted to 2,10,336 MTs. After deducting the transportation of 1,78,891 MTs made during the period, the stock available at the quarry should have been 31,445 MTs. The stock, however, available at the time of inspection and recorded in the inspection report was 6,956 MTs. The resultant shortfall in stock indicates potential transportation of 24,889 MTs of building stone without obtaining MDPs from the Department. Department failed to notice the shortfall in stock and consequently did not take any action in this respect. Royalty leviable on such difference in stock and penalty leviable on such transportation works out to ₹ 44.08 lakhs.

After these cases were brought to the notice of the Department during May 2015 and referred to Government in July 2015, it was stated that production-despatch assessment for the year 2013-14 pertaining to the cases mentioned in the paragraph was conducted in the month of June 2014 and the stock recorded is for that month and not the end of March 2014 for which the assessment is concluded. The difference in stock mentioned in the observation may be due to transportation of building stone from April to June 2014 and this would be accounted for at the time of annual assessment for the year 2014-15. The reply also states that Rule 42 of KMMC Rules, 1994, is not applicable in respect of non-specified minor mineral by virtue of Rule 31 of said Rules, which states that "the provisions of Rules 6, 7, 8, 19 (19A, 20) and Rules 35 to 41 shall mutatis mutandis apply to quarry leases granted or renewed under Chapter-IV". Hence, the reply concludes, MDP is not mandatory for non-specified minor minerals and is issued only on voluntary application by the lessee. Consequent to this, penalty at five times is not applicable for transportation of non-specified minor minerals.

21 Chapter IV of KMMC Rules, 1994 deals with the grant of quarry leases for non-specified minor minerals.
The reply is however, not acceptable due to the following reasons:

1. The transportation till June 2014 (i.e. from April 2014 to the date of inspection) has already been considered in the despatches and hence the closing stock had to match.

2. Rule 42(1) of KMMC Rules, 1994, states that for transportation of any minor mineral, MDP is to be obtained. In addition, Rule 42(2) requires any person desiring to transport minor minerals to apply in Form-AP for MDP/Trip sheet “for specified or non-specified minor mineral” to the competent authority concerned. The specific mention of non-specified minerals under Rule 42(2) clearly establishes the applicability of Rule 42 to non-specified minerals and hence the levy of penalty.

Thus, the Department, though provided with adequate penal provisions to check illegal mining and transportation of minerals, failed to invoke these in the instances pointed out in this observation.

(b) Non/short accounting of closing stock

During test check of records in the office of the DD, Tumkur and two\textsuperscript{22} SG offices during October 2014 and December 2014, Audit noticed from the Annual Audit Reports and production–despatch statements that during the years 2011-12 and 2012-13, the closing stock of mineral brought forward to the subsequent year was either not accounted or short accounted to the extent of 301.716 cubic meter (cum) in respect of three ornamental stone quarries and 8669.44 MT in respect of one building stone quarry. The Department did not detect the discrepancies in the closing balance and opening balance. This indicated possible transportation of ornamental stone of 301.716 cum and 8669.44 MT of building stone without valid permit, which resulted in non-levy of royalty of ₹7.13 lakh. Besides, penalty of ₹35.63 lakh was also leviable on such irregular transportation of mineral. The total non-levy of royalty and penalty works out to ₹42.76 lakh.

After these cases were brought to the notice of the Department during May 2015 and referred to Government in July 2015, an amount of ₹1.33 lakh was collected in two cases and a notice demanding ₹20.20 lakh was issued in another case.

In the case of the building stone lessee, it was replied that the stock was not included in the opening stock of the year 2013-14 by mistake. The left over stock of 8669.44 MT, however, has been added to the production of 9025.56 MT for the year and royalty has already been paid for 17,695 MT (8669.44 MT + 9025.56 MT).

The reply cannot be accepted since the production-despatch statement endorsed by the lessee and the SG shows a production of 17,695 MT of building stone for the year 2013-14. Hence, the claim of 17,695 MT being inclusive of opening stock is not acceptable.

\textsuperscript{22} Dharwad and Koppal