# JHARKHAND INTEGRATED MINES AND MINERAL MANAGEMENT SYSTEM (JIMMS)

**Jharkhand is one of the most naturally endowed states of India! Owing to its geological and geomorphologic configuration, it accounts for 40% of the country's mineral resources.**

Jharkhand has an area of 79,710 sq km out of which 29.61% forest area.

There are more than 30 types of minerals found in this state. It holds the 1st position in coal reserves, 2nd position in Iron, 3rd position in Copper ore reserve, 7th position in Bauxite reserve and is the sole producer of prime coking coal. Limestone, Dolomite, Manganese, Mica, China Clay, Graphite, Soapstone, Fire Clay, Coal Bed Methane, Uranium, Phosphorite, Apatite, Quartz, Feldspar, Gold and Pyroxenite are also found in abundance here. The state's industries enjoy a unique location-specific advantage as it is close to the vast market of eastern India. It is closer to the ports of Kolkata, Haldia and Paradip which helps in transportation of minerals.

Streamlining the mining operations including tracking of end to end mineral transaction has been an issue of deep concern for the Government of Jharkhand since last five years. The department implemented

Jharkhand Integrated Mines and Mineral management system (JIMMS) to cleanse and overhaul mineral administration with the use of Information & Technology by adopting a robust on-line system for regulating the mining operation in all the mines of the state.

## Pre Scenario

Streamlining the mining operations including tracking of end to end mineral transaction has been an issue of deep concern for the Government of Jharhand since last decade. There were number of issues faced by the Govt officials, by the lessees, licensees, traders and transporters and also by citizens who had no clue regarding mineral exploitation activities.Challenges

## Challenges

> Lack of real-time information, especially in relation to transportation of mineral through road/rail/ship

> Lack of accountability for application processing and approval

> Inadequate resources for monitoring the mineral production, dispatch, clearances and other details as per admissible limit & collection of the mining revenue

> Lack of provision for effectively determining actual quantity of mineral being transported

> Lack of provision for the monitoring of actual quantity in check gates passed to the destination

> Lack of provision for recognizing/validating forged transit passes/challan

> Decentralized information and processes involve multiple government departments (Mining, Forest, Pollution, Collectorate & HQ)

> Time-consuming procedures for Permit Issuance, Mineral Due Clearance certificate issuance, New License Issuance, License Renewal etc.

> Difficulties in filing reports and returns manually to multiple stakeholders



## Solution

JIMMS has been designed to automate all mining processes, facilitating multiple stakeholders to play their respective part in managing the valuable information that helps in curbing down any illegality and irregularity. JIIMS provides a complete solution for the Government officials, Mine owners, Lessees and Licensees. It works on a broader perspective of providing check and balances to the existing mining operations. Never-the-less, it also brings in re-engineering in the processes which results in accurate and timely data collection and a fool-proof decision support system. Web enabling various geographical aspects also helps in this endeavor.

JIMMS is more than one innovation in itself, as the same technology is used as a facilitator as well a regulator at the same time. One of the first innovations was interlinking  the stakeholders to a single entity irrespective of them being registered differently as mining or trading or industry. In an non-IT environment an Industry if suspended for some wrong activity in any mining circle was allowed to enjoy operations in another as it was difficult to fix accountability on the promoters which was often seen as an connivance between the lower bureaucracy and the industrial houses

of favor, but at a present situation the HQ can immediately stop complete activity of any stake holder at any point of time with a click of a button & can refrain that stakeholder from doing business till further.

The linkage was difficult since holding companies might have different dealing in comparison to mineral dealing, but this linkage was possible through the unique code assigned to each and every registered entity.

The second innovation was interlink each and every activity was to sub classify the Licensee into 16 different category from the existing 4. This was essential to have a clear idea of usability.

Third innovation was while building the data base all the essential profiling was done at the Lessee and the Licensee end, with upload of scanned documents as a proof made the implementation well ahead at least by 6 months as had the data been collected by the Government staff it could have led to delay and importantly the documents were scattered at various offices of the state. The list would have gone unlimited and have taken months together to compile by the Governments own effort.  It was decided that a portal will be created and all Lessee and Licensee through mode of Advertisement will be notified that they need to complete in a 3 months' time else the business operations will be suspended.

The other innovations are as follows:

> End to end tracking of Mineral Ore from Source till  (Rail ,Port & Industry Head )

> MCL has acknowledged that that the despatch of Coal by Road as increased by 30% after introduction of i3MS for Coal.

> Leakage curbed and  royalty enhanced

> One of the first application in the country to simultaneously integrate with Indian Railways, VahanSarthi , VATiS in real time

> Implemented Mineral Transparency Portal in record time of One year.

## Post Scenario

In about three years' time, JIMMS has significantly met a key objective of the Government in ensuring transparency and curbing illegal mining and transportation. Since last two year the system is in place now.

JIMMS delivered end to end tracking of Mineral Ore from Source till Rail/Port/& Industry Head. It has been able to substantially enhance the dispatch of coal by Road, as confirmation by the CCL. It incidentally becomes the first application in the Country to have integrated with Freight Operating Information System (FoIS) of Indian Railways. The integration of JIMMS with the RTO database in real time is in progress.

Statistics that corroborate the impact of JIMMS:

> Rs 7154.22 Cr Revenue collected online since inception.

> 65963 users with role and right based access;

> Profile have been created for 3924 mining leases

> E-permit management system:120597 e Permit requests have been granted

> More than 16533256  eTransit Passes were generated with 1D and 2D barcode.

> 6068 New / Renewal License have been granted through online

Significant Improvement in measurable indicators is the reduction of time, effort, human intervention and pilferage in

> Issuance of Permits,

> Check and Audit of all statutory clearances,

> Fees and Royalty collection,

> Control, monitor and management of ore dispatched, and

> Generation of decision-making MIS reports and returns