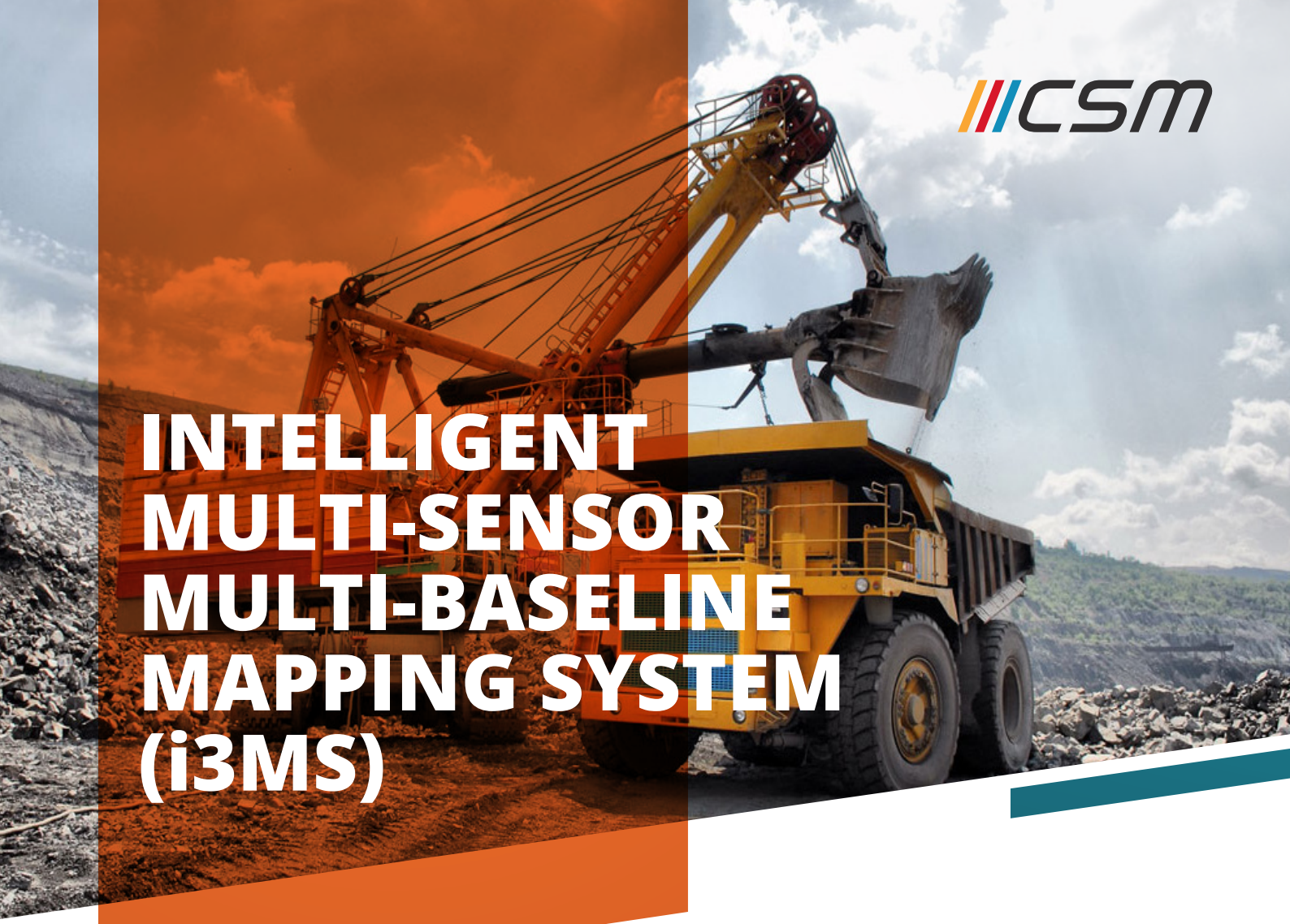

INTELLIGENT MULTI-SENSOR MULTI-BASELINE MAPPING SYSTEM (i3MS)

Minerals being a major natural resource represent the wealth of a region where they exists and open up wide scopes for the prosperity of the region.

Odisha is a very rich mineral bearing state of India. Odisha is the leading producer of graphite, bauxite, chromite, manganese ore, iron ore. From last two and half decades the sector has scripted a turnaround in the state economy by attracting large scale private investments.

Pre Scenario

The Mines Department in Odisha is administered by Steel & Mines Department and two Directorates namely the Directorate of Mines and the Directorate of Geology. Till date the mining leases in Odisha are 617 & 1814 license has been issued to the traders and end user industries for active use of the minerals. The Directorate of Mines has 14 mining circle administering mineral resources in 30 districts. These mining circles process mineral concession applications Collect mineral revenue, Prevent& control of illegal mining; enforce all statutory provisions for exploration of minerals &Peripheral development of mining areas etc. Activities of

Lessee are governed by Central Acts &State Rules. There are a large number of laws in place with provisions relating to the Mining, Environment, etc. Permissions for mining, adherence to laws, royalty collection etc. was restricted to a particular Circle. Regulators at these levels were severely limited by the lack of adequate and usable information/ data on several aspects pertaining to mining operations. And these created inadequate enforcement of laws which resulted in illegal mining operations. Whatever details were present were located in various offices of the State, causing overwork to the officers. Due to this unavailability of data, there was no transparency in issuing Transit Passes and Permits. Therefore, it was impossible to monitor dispatched quantity of ore as against the produced quantity of ore for months together.

Challenges

- Permissions for mining adherence to laws
- Royalty collection was restricted to a particular circle
- Regulators at these levels were severely limited by the lack of adequate
- Usable information/data on several aspects pertaining to mining operations
- The details that are available were located in various offices of the state, causing overwork to the officers
- Due to unavailability of data, there was no transparency in issuing Transit Passes and Permits.

Solution

I3MS is one of its kind robust software application piloted by the Steel & Mines Department where all transactions of the mining Lessee & licensee of Odisha are made online. The software work as a single window to all kind of stakeholders attached with the mining sector of the state by providing the requirements of various Government departments in a single application. This software created a standard operating procedure for all Government officers dealing with Mineral of the State to avoid delay & favoritism to mine producers and the end users. To ground this project massive overhauling of the existing rules & regulations had to be done by plugging in new rules on the Lessee & Licensee. The complex and outdated mining rule were simplified by plugging in IT tools which avoided duplicity. It was also decided to open all transaction of Minerals from Mines to the end user to Citizens for transparency.

The project was first tested as a pilot at Joda circle. Due to its success, it is now being implemented in all the 14 circles of the state. The project has been very widely accepted by the Lessees, Licensees and Government alike. The site is user friendly and easy to navigate. Help manuals have been uploaded to provide assistance to the users during registration.

The forms are applied online and can be printed by downloading after approval. As all the applications, grants, monitoring, calculations and tracking are done online, the process is completely transparent and accountable.

Subsequently RFID Cards & ePasses have been introduced to ensure end to end transparency in transport of minerals and ores. This is aimed at tracking down illegal trafficking of minerals and counterfeit registration of mineral carriers plying in the state. The track down further the movement of the vehicle carrying the minerals, GPS System has been installed in each permitted

truck which is monitored at the officials of Mining Department.

The system is scalable to accommodate any number of mining offices. Implementation of the system at the Mines Area, Check gate or Railway siding, requires minimal hardware and man power. This makes the system scalable.

Post Scenario

This project impacts the overall Mining activities of the state and mining stakeholders like Government officials as well as Mines owners, traders, transport companies, plant owners etc. The major impacts of I3MS are:

- Mining transparency and improvement in revenue collection due to complete digitization of the process.
- First application in the Country to have integrated with Freight Operating Information System (FoIS) of Indian Railways, RTO (Vehicle Registration), CTO (Taxation dept), Ports
- Quick Turn Around time for Statutory Clearances, Permits & Pass processing
- Outreach to remote mining areas made possible via use of desktop and mobile versions of i3MS
- Single window system that inter-connects 17 different modules and also captures data from the weighbridge operated by the user
- Facility to SMS to the state toll free number with the TP number printed on the pass to eliminate fraud has been provided.
- Daily production and transportation of mineral details published online.
- Current and up-to-date information on working and non-working lessees and licensees.

While the above are the direct impact on the transparency and accountability on the mining industry. The socio-economic impacts of the process are none the less. The intervention of I3MS has helped curbing illegal mining at large, thus helping revenue growth of the state. According to Govt resources, the transparency maintained through implementation if this software helped in increasing the revenue of mining sector by 74 percent as compared to previous years.

Apart from this the process impacts the overall Mining activities which in the long run affects citizens leaving near the mining area.

The royalty & NMET collected from this activities has been used for the betterment and holistic wellbeing of the people in the mining periphery areas and the pro also created around 1000+ employment to carry out the process efficiently throughout its cycle.

Achievements

What we were able to regularize

- 84,528 users in 36 different set of user type
- 827,248 e-Permits granted since inception
- 5.91 Crore Trip Sheets generated
- 7,485 no. of new/renewal of dealer licenses granted online
- 8050 online Mineral due Clearance Certificate processed

Revenue collected on transactions

- Rs. 40,141.05Cr.(401.410 Billions) Royalty, dead & surface rent processed
- Rs. 229.43 Cr. collected against User Fee
- Rs. 8.91 Cr. collected against Application Fee
- 75,176 Trucks registered with photograph, validated online with RTO (Vahan Database)
- 404 Electronic Weigh bridges in 137 mines and 289 in 251 Dealer been approved online