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How Automation Can Ease Grant of Mineral Concessions

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Think what mining can do for states and nations. Efficient mining when done right in consonance with the laws of the land can dig out huge wealth beneath the ground and create value above it. The potential of mining is evident in its contribution to the economies of Australia, Asia, Latin America and Africa. Some of these resource rich nations have paced ahead, exploiting the mineral wealth. Yet, in some other countries, especially in the African region, the bountiful resources have not translated into plentiful gains. The lack of correlation between mineral wealth and 'wealth above the ground' in these nations can be attributed in some measure to the absence of a well-defined mineral concession system. This is manifested in some African countries which have renegotiated terms of the mineral concession agreements or even scrapped them altogether as the benefits were skewed in favour of the mining companies and gains for the state were not significant. Automation promises to correct this imbalance. How? **The lifecycle of resource exploitation begins with award of mineral concession. And, automation of this system buoys investor**

confidence by easing business processes involved in award of exploration and mining rights.

The Plight for Miners Before They Tap Into Mines

Mining has this reputation of a business which thrives on foot-on-the-ground operations. But getting a toehold on the mine is beset with hurdles like:-

- ***Grant of prospecting license***: Grant of licenses for reconnaissance or exploration is usually fraught with problems like lack of transparency, steep fees, insecure rights and copious documentary requirements.
- ***Grant of Mining licenses*****:** Unless there is a transparent and organized process for awarding mineral concessions, the road to mining can face hurdles such as lack of transparency, steep fees, insecure rights, and no mechanism for automatic transfer or conversion of licenses from exploration to production. What hurts the prospective lessee is the absence of a timeline to obtain the mining lease.
- ***Delay in Obtaining Approvals/Permits*****:** Obtaining key approvals and permits is increasingly difficult for mine lessees when processes are largely manual. Timeliness of a mining project has a bearing on its productivity.
- ***Lack of visibility on stage of Mineral Concession grants*****:** When processes are not digitalized, there is lack of real time visibility on the status of a mineral concession application. Besides, when systems are not interconnected, it becomes difficult to synchronize clearances or compliances from multiple regulatory bodies as mining permits involve cross-functional approvals.

The Promise of a Digital Interface in Award Of Mine Rights

A unified system for Mineral Concession can fulfill the broader objective of Ease of Doing Business in mining. Mineral concessions awarded through this automated system cover the entire lifecycle of a concession, including mining lease licenses (ML) for virgin deposits as well as lapsed major mineral resources, prospecting licenses (PL) and non-exclusive reconnaissance permits (NERPs). An entire journey can be tracked online, starting with the Letter of Intent (LoI) and ending with the lease signature.

Further, the technology-powered application lists timelines for the achievement of each milestone, thereby overcoming the procedural delay associated with manual process. It provides real-time visibility into the status of mineral concession applications through a user-friendly dashboard. One of the striking takeaways of this

system is that it is easily integrable with third party and legacy systems like the platform for electronic auctions, mineral ore accounting and management system and electronic file processing system.

With such seamless integration, essential data on mine lessees and mine-related information can be imported. For example, if a mining resource was auctioned, the system would capture information such as the date the tender was floated, the name of the mine, bidding details, and the tender document. Using the system, the concerned officials can approve or object to bidders' proposals. In addition, the system facilitates online payments and reconciliation. What's more, an analytics dashboard provides an insight into the status of mining concessions, process-wise applications received, circle-wise viewing of applications, pendency status, process-wise delays, and bidder details. All stakeholders are notified via email at every stage of the process, and all documents relating to compliance are uploaded online.

As mining aligns with the mandate of **Industry 4.0**, the mineral concession system needs to be paperless and contactless. **Emerging technologies** such as **Artificial Intelligence (AI)** and **Robotic Process Automation (RPA)** can fit into the vision of futuristic reforms in mining. Say, RPA substituting the repetitive paper work in mining or **blockchain technology** taking over to secure and validate key credentials like mining lease document. The promise of the moment and possibilities in the future begins with automation!

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