

INFORMATION TECHNOLOGY



Information Technology



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With diversification of the Information and Communication Technology (ICT) landscape and Digital India initiative of the Government, it has become absolutely imperative for the Government to bring in qualitative and quantitative transformations in wake of changing user expectations.

In the year 2024-25, Ministry of Coal with the help of NIC has strived hard and taken lead towards implementing various decision support system required for better planning, monitoring and decision making. The key advantage for the MIS applications/ website is to reduce the Ministry's workload and increase overall transparency in its function.

NIC COAL Computer Centre in Ministry of Coal is well equipped with latest computer systems for delivering and implementing secure multi-platform computer-based applications / solutions, database support, Internet, Email, network, Cyber Security, VPN and video conferencing facilities. Ministry of Coal has adopted Cloud services of NIC – Meghraj to ensure optimum utilization of the infrastructure and speed up the development and deployment of e-Governance applications of Ministry of Coal.

NIC has a dedicated team in Ministry of Coal with an officer of the rank of Deputy Director General (DDG), one Senior Director (IT) as Head of Department (HoD), one Scientist-B and a Scientific/Technical Assistant-B. Ministry has undertaken various Projects/ Activities in coordination with National Informatics Centre (NIC) cell of the Ministry under the following categories:

1.1. Information & Communication Technology (ICT) Projects/Activities

- Design, Development & Implementation of e-Governance Projects

- Promote E-governance activities.
- Administration, updating and maintenance of all websites and Applications Project Management activities like resources management, scope management, requirement study etc.
- Deployment of Web Sites, Web portals and Web Based Applications on NIC Cloud - Meghraj to ensure optimum utilization of the infrastructure and speed up the development and deployment of e-Governance applications of Ministry.
- Compliance of Cyber Security Guidelines, Advisories, Alerts, etc.
- Capacity Building and Training for all stake holders on various software application and related to ICT activities.
- Maintenance of Local Area Network (LAN) and Internet Services
- Support on e-mail creation and issues faced by ministry officials

1.2. e-Governance applications/Portals NIC also provide supports to Ministry officials on generic e-Governance applications such as:

NIC also provide supports to Ministry officials on generic e-Governance applications such as:

- <https://coal.eoffice.gov.in>
- <https://pgportal.gov.in> (portal for grievance redress and monitoring system)
- <https://pfms.nic.in> (Public Financial Management System)
- <http://bhavishya.gov.in> (pension, sanctions and payment tracking system)



- <https://e-samiksha.gov.in>
- <https://limbs.gov.in> (web application for digitization of Court cases)
- <https://esamiksha.gov.in/> eSamiksha is a real-time on-line system for monitoring of follow-up action on the decisions taken during the presentations made by different Ministries/Departments to the Prime Minister, Centre-State-Coordination issues, observations made by Cabinet, recommendations made by Committee of Secretaries, etc.
- e-tendering (Centralized Public Procurement Portal for tender publishing), e-HRMS (Human Resource Management System), e-service book, SPARROW, Swagat (Visitor Management System), Aadhar based biometric attendance system, etc.

1.3. e-Governance Initiatives: Various Management Information Systems/ applications developed for the Ministry are:

i. **Single Window Clearance System (SWCS) Portal: (<https://swcs.coal.gov.in>)**

As part of the initiative for ease of doing business by the Government of India, the Ministry of Coal had conceptualized a Single Window Clearance System that facilitates obtaining clearances and approvals required for the smooth operationalization of coal mines in India, as well as augmenting coal production in the country through a single gateway.

Various statutory provisions, such as the approval of Mining Plan and Mine Closure Plan, Grant of Mining Lease, Environment and Forest Clearances, Consent to Establish, Consent to Operate, Wildlife Clearance, Permission for Explosive and Safety Organization (PESO) for the storage of Explosive, Land Acquisition Module, Safety Management Plan (with

DGMS), Central Ground Water clearance, etc., are prerequisites for starting a coal mine. These clearances are granted by various Central Ministries and State Government departments/agencies. This portal maps all the statutory clearances required (covering Central Ministries as well as State Government departments/agencies) for starting a coal mine.

The portal is designed not only to map the relevant application formats but also to map the process flow for the grant of approvals/clearances and integrate with online portals through APIs. To facilitate ease of doing business, a unified platform of SWCS is designed, which includes an already operational module for approval of mining plans and mine closure plans in a time-bound manner and integration with the National Single Window Clearance System (NSWCS).

The Registration module, Mining Plan module, Submission of Objection Notification under Section 7(1) of CBA and Communication of Resolution module, Integration with Parivesh portal 1.0 (Forest clearance, Environment Clearance, Wildlife Clearance, Coastal Regulatory Zone Clearance, Consent to Operate, and Consent to Establish), and Integration with the National Single Window Clearance System were completed as part of Digital India.

Integration of the SWCS portal of the Ministry of Coal with the National Single Window Clearance System (NSWS) was carried out as part of the Digital India initiative. The PING API, Authentication API, Pull Document API, and Push Redirection API have been completed. Project proponents can now register through the NSWS portal, following the successful integration of the SWCS portal with NSWS,



which is now available for stakeholders to complete their registration.

Further, a module named PRIMS (Project Information Management System) has been made operational, in which basic information related to coal blocks is stored, such as the act under which the mine is allocated, the time allocated for completion of all milestones, method of mining, type of coal, the status of the coal block (explored, unexplored), details of reserves, peak rated capacity, life of the mines, along with the date of operationalization. The module tracks the development of coal mines after they are vested, monitoring all milestones mentioned in the efficiency parameters of the CMDPA. It displays a list of milestones with the due and actual completion dates, which are needed to be completed by the bidders in order to get the coal mine operational. It also tracks the coal production of each mine on a daily and monthly basis, helping the Ministry monitor coal production and further expeditious implementation of coal mines. Additionally, it tracks the details of coal dispatch from the mines.

Additionally, on 07.11.2024, the Ministry of Coal launched a module on the Single Window Clearance Web portal for processing and issuing Mine Opening/Seam Opening Permissions, granted by the Coal Controller Organization. This initiative streamlines and expedites the process of obtaining Mine Opening/Seam Opening Permissions for starting new coal mines or opening new coal seams. The digital platform enables project proponents to submit applications online, removing the need for manual paperwork and greatly reducing processing time. Applicants can also track the status of their applications in real time, promoting greater transparency

and accountability throughout the clearance process. By simplifying this critical component of the coal mining regulatory framework, the Ministry of Coal aims to create a more efficient and investment-friendly environment within the industry.

ii. Coal Import Monitoring System (CIMS): (<https://imports.gov.in/CIMS>)

The categories of coal on which the CIMS would be applicable include anthracite coal, bituminous coal, coking coal, and steam coal. CIMS also has the facility to view earlier online registrations. In addition, incomplete applications which have not been submitted for registration on the DGFT portal are also available in the CIMS for review and further action.

This portal enables the government to keep a tab on the various categories of coal being imported and help make policy decisions accordingly. The categories of coal on which the CIMS would be applicable include anthracite coal, bituminous coal, coking coal, and steam coal. CIMS also has the facility to view earlier online registrations. In addition, incomplete applications which have not been submitted for registration on the DGFT portal are also available in the CIMS for review and further action.

iii. Star Rating of Coal Mines Portal: (<https://starrating.coal.gov.in>)

Coal Mining operations are expected to comply with many rules, regulations. These are mainly regarding safety, environment, rehabilitation of project affected families, welfare of workers etc. All the mines are expected to comply with all the regulations. The Star Rating policy aims to evaluate mines based on various factors across seven key parameters: Mining Operations, Environment-related parameters, Adoption of Technologies,



Best Mining Practices, Economic performance, Rehabilitation Resettlement, Worker-related Compliance and Safety security.

In order to foster competitiveness among mines and recognize their outstanding performance based on above mentioned areas and give them due recognition, NIC-Coal Team had developed and maintaining a web portal named Star Rating of Coal Mines which is expected to do the same.

Mines are undertaking a comprehensive self-evaluation process and subsequent validation by reviewer appointed by Coal Controller and then by Coal Controller itself. This portal aims to elevate the overall performance and sustainability of coal and lignite mining in the country by driving competitiveness and promoting responsible mining practices. The ratings awarded range from Five Star to NO Star, comprehensively evaluating each mine's achievements.

iv. Website of the Ministry: (<https://coal.gov.in>)

Website is an integral part of any organization. Website of Ministry has been redesigned using latest state-of-the-Art technology. it is a CMS driven system with ease in operation and management. Ministry of Coal website is bilingual, user friendly and provides an easy navigation and quick access to important and latest updated information. The website is made responsive to enable accessibility from all hand-held devices.

Ministry website is updated on daily basis by adding latest Coal Statistics such as Coal Production Dispatch, Coal block allocation auction of coal mines, Safety in coal mines, Acts Policies, Sustainable Development, Technology Roadmap, Coal Gasification, Tender notices, Advertisement, Annual reports, Events, Press Releases, activities held and to be held, etc.

Website is updated regularly and enriched by adding Major achievement and by adding video content and photo galleries (Programme/Event wise) etc. The site is security audited and also got STQC clearance as per required for all Government website.

v. National Coal Portal (Coal Dashboard): (<https://ncp.cmpdi.co.in>)

National Coal Portal, a dashboard has been developed and maintained to share Key Performance Indicators (KPIs) related to the Coal Sector to end users. This dashboard monitors real time Coal Production and Coal Dispatch on a daily basis. The Graphical User Interface (GUI) based analytics was carried out for coal production and coal dispatch. KPIs of Coal Production and Coal Dispatch have been integrated with Prayas Portal using Web APIs.

This dashboard displays KPIs related to Coal/Lignite Production, Coal/Lignite Offtake, Exploration, Central Sector Schemes, Status of Coal Stock in Thermal Power Plants, Infrastructure Projects, Allocation of Blocks (CMSP/MMDR), Monitoring of Major Coal Mines (CIL), Coal Price, Sustainable Development Activities. Portal comprises different type of graphical reports with respect to Coal Production and Coal Dispatch.

vi. e-Office: (<https://coal.eoffice.gov.in>)

e-Office a web-based system implemented and maintained for effective online monitoring of movement of files and receipt in the ministry. The e-Office product aims to support governance by ushering in more effective and transparent manner for inter and intra-government processes.

This system involves all stages, including the diarisation of inward receipts, creation of files, movement of receipts and files, tracking of files, searched and finally, the archival of



records. It is fully functional in Ministry of Coal. There is no physical file movement in the Ministry. Web VPN services has been provided to all the officials of the Ministry to access this portal from non-NICNET nodes / laptops to ensure nonstop working in e-Office Platform from outside office. Necessary operational training is provided to ministry officials from time to time. Ministry of Coal has successfully migrated into the new version of e-office 7.x.

vii. e-HRMS (Human Resource Management System): <https://e-hrms.gov.in>

e-HRMS has been revamped and implemented in the Ministry of Coal. Manav Sampada (appropriately name for Human Capital, being the most important factor for the success of any Government, Organisation or Company) is a standard ICT solution for the Government sector, addressing maximum requirements of State Governments related to personnel management. The first and basic objective of Manav Sampada is to provide a generic, product-based solution to the State/Central Government organisations for better management of personnel through electronic service record. It further assists the top management in knowing the exact number of employees, the retirement pattern, additional requirements in coming year for planning recruitments, funds required for retiring employees, re-allocation of surplus employees to other Departments/organisations within the State, ACR/Property Return status, seniority lists etc.

Employees of the Ministry will be able to not only see all their details w.r.t service book, leave, etc., but also apply for different kind of claims/reimbursements, loan/advances, leave, leave encashment, LTC advances, Tour etc. on a single platform.

Additional services have been added in the

form of Pension papers generation, integration with e-Salary through web services, Online Property Returns, generation of pension papers, status of payments. This has added value for both the monitoring officials and employee.

viii. PRAYAS-PMO Dashboard: (<https://prayas.nic.in>)

Month-wise data of two schemes of Ministry (Coal Production & Coal Dispatch) was integrated with PRAYAS dashboard of PMO using Web APIs. This dashboard shows various KPIs with time series analysis for monitoring at apex level. The PRAYAS Dashboard is integrating various schemes of Central Ministries, which is being monitored at PMO, Minister and other apex level for planning and monitoring purpose at a single platform.

ix. PM GatiShakti-

Nation Master Plan (PMGS-NMP) incorporates the infrastructure projects of various Ministries and State Governments which extensively uses spatial planning tools. The Ministry of Coal has identified more than 100 data layers mapped along with attributes and metadata for planning and monitoring of infrastructure through PM GS-NMP portal. The data layers enhance the integrated planning process of the resources of related Ministries during the planning stage.

The Ministry of Coal has used PMGS-NMP portal for resolving issues like alternate route of transmission line passing through Dhirauli Coal Block, alternate rail alignment of Pelma-Sardega and Tentuloi-Budhapunk lines to avoid overlapping with coal blocks etc. The Ministry also intends to build up the value chain of coal resource from exploration to planning and execution of coal sector projects through development of dashboards and applications on PM GatiShakti NMP platform and integrate



with portal of the Ministry. Project Reports of Coal India Limited (CIL) are analyzed based on available information on PMGS-NMP portal for integrated planning to boost coal production.

2. Cyber Security of Ministry of Coal

Ministry of Coal has fully implemented security advisories with respect to cyber issues by CERT-In (Indian Computer Emergency Response Team under the Ministry of Electronics and Information Technology) for securing application portals and to secure IT infrastructure in the Ministry. The CISO (Chief Information Security Officer) has already been appointed in the Ministry. As per the guidelines by CERT-In, the Cyber Crisis Management Plan (CCMP) duly approved by MeitY has been formulated to effectively mitigate cyber threats and incident and secure the entire Network of Ministry. Necessary instructions as per the MeitY guidelines regarding cyber security have also been circulated to all the CPSEs for necessary compliance. Advisories/Alerts/Vulnerabilities received from CERT-IN, IB, NIC-CERT, NCIIPC, I4C have been addressed promptly and necessary action is being taken accordingly.

Endpoint Detection and Response (EDR) and Unified Endpoint Management (UEM) has been installed in all the Desktops, Laptops etc. EDR is primarily focused on threat detection and response. It monitors and analyses endpoint activities to identify and respond to security threats. UEM focuses on tasks like software deployment, configuration management, and patching to maintain and manage endpoints efficiently.

Ministry website and all the Applications/Portals developed are hosted on NIC Cloud Server after getting security audit by CERT-In empanelled Agencies to secure these Applications/Portals from external threats. All the websites/applications have an SSL (Secure Sockets Layer) certificate to make them more secure.

Cyber Security Guidelines for Government Employees on various Cyber Security aspects like Passwords Management, Email Security, Desktop Management, Removable Media Security, Social Media Security, Cyber Security Advisory and Incident Reporting, etc have been circulated. Standard Operating Procedure (SOP) for Network Devices have also been formulated to ensure Cyber Security in the Ministry of Coal.

A “Workshop on Cyber Security” aimed to sensitizing the officials of the Ministry about the prevailing cyber security challenges has been organized on 10th October, 2024. The workshop served as a platform for dissemination insights and advocating the adoption of best cyber security practices in the Ministry.

Ministry maintains an up-to-date inventory of all the IT assets deployed in the network like Desktops, Printers, Switches etc. and old/obsolete network devices (Switches) and end points are being replaced with new devices with latest original software’s in phase wise manner. In addition, all the end points who does not meet the security compliance, have been disconnected from the network of Ministry.

3. Video Conferencing facility:

Ministry is extensively using a secure Video Conferencing facility provided by NIC in the Ministry to facilitate Senior Officers to hold important meetings with Coal India Limited and its Subsidiaries, SCCL and NLCIL, Conduction Board Meeting, Sub-Group meetings, IC meetings, etc. There are 5 Studio based Video conferencing (VC) systems are in operational and all the desktop is having Desktop based VC (BharatVC) facility. Around 850 Video Conferencing sessions were conducted successfully during this year. This facility is also successfully being used during VC meeting by Hon’ble Prime Minister on PRAGATI.



4. Local Area Network (LAN):

A LAN has been established in the Ministry to access internet and for communication with officials of the Ministry. There are approximately two hundred sixth users connected to the LAN. All kind of trouble shooting is done by NIC-FMS team to facilitate the smooth functioning of internet on user machines. EDR and UEM is installed on all the clients for advance protection from virus, malware and their management as per Cyber security guidelines and policy of MeitY, Government of India.

5. Email/VPN Cloud Support:

Creation of Email accounts of the Ministry Officials

are processed by NIC-Coal Team as and when required. Requests related to virtual Private Network (VPN) accounts to access the e-Office from networks other than NICNET are processed through NIC team of Ministry.

6. Wi-Fi Support:

Wi-Fi access point connectivity has been enabled in the Ministry to access internet on Laptop or mobile. Form processing for Wi-Fi connection and device configuration is done by NIC-Coal Team. As on date, about 10 Wi-Fi access points are installed in the Ministry. Trouble shooting of Wi-fi related problems is done on regular basis by NIC Network Team.



7. MEDIA

The Media Cell of the Ministry of Coal plays a crucial role in bridging the communication gap between the Ministry, its stakeholders, and the public. With the increasing importance of coal in India's energy landscape, the Media Cell's efforts in disseminating information about coal production, sustainability initiatives, technological advancements, and CSR activities have been instrumental in creating awareness. Over the past year, the Media Cell has worked diligently to enhance the visibility of the Ministry's programs through traditional media, social media platforms, and live broadcasts. Its key

objective remains to communicate the Ministry's achievements, promote transparency, and engage the public effectively in the coal sector's journey toward self-reliance and sustainability. The strategic use of media channels has helped build a positive image of the Ministry while engaging key stakeholders, including the public, media, and policymakers.

The Media Cell has maintained robust communication with national and regional media outlets, ensuring timely dissemination of information about the Ministry's milestones and initiatives. Through PIB press releases, stories in leading newspapers,



and coverage on electronic media, the Ministry's key events such as Commercial coal block auctions, technological innovations, and CSR initiatives, Sustainability reached a wide audience. Accompanied by infographics and impactful visuals, these updates highlighted coal production growth, policy advancements, and environmental efforts, ensuring the public and stakeholders remain well-informed.

7.1. Social Media Engagement: The Ministry of Coal has significantly expanded its digital presence across platforms such as Twitter, Facebook, Instagram, Thread YouTube and LinkedIn. The Media Cell has been proactive in curating and managing engaging content, leading to remarkable growth in followers and increased public interaction. The cell has shared content included regular updates on coal production, dispatch figures, and sustainability efforts, along with highlights of key initiatives like Commercial Coal Mine Auctions, Star Rating Awards, and the promotion of clean coal technologies such as coal gasification and Mine closure Plan on regular basis. A standout achievement of the year was the extensive media coverage of the CSR initiatives undertaken by Coal PSUs under the Ministry. These efforts have brought profound improvements to communities in coal-bearing regions. Media coverage highlighted impactful programs, including health camps, educational support, women empowerment initiatives, skill development programs, and schemes like NIRMAN. These initiatives not only improved local infrastructure but also created lasting positive changes, showcasing the Ministry's commitment to social sustainability.

7.2. Live Telecasts and Media Coverage of Key Events on Ministry

The Media Cell has been instrumental in ensuring live telecasts and extensive media coverage of significant events throughout the year. High-profile visits by the Hon'ble Minister to coal-bearing states and PSU areas were broadcast live on YouTube,

allowing stakeholders and the public to witness important developments as they unfolded. These broadcasts showcased the Minister's engagement with local communities and PSU officials, reflecting the Ministry's focus on enhancing coal production, advancing sustainability measures, and safeguarding worker welfare.

The live telecast of Commercial Coal Mine Auction launches also provided a transparent view of the process, emphasizing the Government's commitment to boosting coal production through fair practices. This proactive approach to media coverage has effectively highlighted the Ministry's efforts to strengthen India's energy security and achieve self-reliance in the coal sector.

Additionally, the extensive media coverage has shed light on how CSR initiatives are integrated into coal mining to drive socio-economic growth in coal-bearing States and across the Nation. By amplifying the visibility of these programs, the Ministry has demonstrated its dedication to sustainable development and community well-being.

Additionally, the live telecast of launch of coal auctions has provided insights into auction process & highlighted the Government's commitment to boosting India's

7.3. The core activity of the Media Cell has been the consistent issuance of press releases, which are crucial in keeping the media and public informed about the Ministry of Coal's key developments, initiatives, and achievements. These press releases often include infographics and photographs to present information in an engaging and accessible way. They highlight coal production targets, policy updates, technological advancements, and new initiatives, such as the introduction of innovative mining technologies and sustainability efforts like land reclamation projects. The detailed insights provided in these releases ensure the public and stakeholders remain well-informed about the



Ministry's progress and commitment to self-reliance in the coal sector.

7.4. Collaborations and Partnerships: The Media Cell has collaborated with various Ministries, Government organizations, and media agencies to amplify the Ministry's outreach efforts. These collaborations have included joint press conferences, media campaigns, and joint public awareness initiatives aimed at promoting energy security and sustainable coal practices.

7.5. The Media Cell has also managed communication during times of crisis or sensitive issues. The team responded promptly and effectively to media queries, ensuring that accurate information was provided to the public. Whether it was addressing concerns about coal supply or clarifying doubts regarding government policies, the Media Cell has worked tirelessly to ensure the Ministry's position was clearly communicated.

7.6. The Media Cell also prioritized social media outreach, recognizing the power of digital platforms in engaging a broad audience. Daily posts on Twitter, Facebook, Instagram, and LinkedIn kept followers updated on the Ministry's achievements, policy updates, and upcoming projects. These posts, often featuring impactful visuals, led to a significant increase in the Ministry's online engagement and following, thereby improving public understanding of the coal sector's importance in India's energy security.

7.7. The combination of traditional press releases and social media outreach helped the Media Cell reach diverse audiences, from industry experts and

policymakers to the public. The sustained focus on social media engagement has led to greater interaction and visibility for the Ministry's initiatives, making it one of the key channels for communication.

7.8. In line with its goal to showcase the tangible impacts of its initiatives, the Media Cell produced a series of videos featuring beneficiaries of various programs. These videos provided a personal touch by telling the stories of individuals whose lives have been positively impacted by the CSR activities of Coal PSUs. From children benefiting from educational support to women gaining financial independence through skill development, these stories resonated deeply with the audience.

7.9. These videos were shared across various platforms, including YouTube, where they garnered significant attention. By focusing on real-life stories, the Media Cell brought the Ministry's efforts to life, illustrating the true human impact of its initiatives. The positive feedback from the public reinforced the importance of these programs and highlighted the Ministry's dedication to social welfare.

7.10. The Media Cell of the Ministry of Coal has had a successful year in communicating the Ministry's initiatives, achievements, and key developments. By focusing on transparency, public engagement, environment and the promotion of CSR activities, the Media Cell has ensured that the Ministry's efforts in promoting coal production, sustainability, and community welfare are recognized by a wide audience. The continued growth in social media reach, media coverage, and public engagement has reinforced the Ministry's commitment to innovation, social responsibility, and the nation's energy security.

