

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 2023-24, Ministry of Coal, along with NIC has strived hard and taken lead towards standardization and improvement in IT working environment for providing e-Government / e-Government Solutions, adopting best practices, integrated services and Comprehensive solutions delivery.

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 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), two Senior Director (IT) one as Head of Department (HoD) 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 and related training
- Design, Development & Hosting of Web Site
- Design, Development & Implementation of Web Portals and Web Based Applications
- 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.
- Cyber Security Audit Compliance
- Maintenance of Local Area Network (LAN) and Internet Services
- Support on e-mail
- Video Conferencing
- Support to Coal India Limited and its Subsidiaries, NLCIL, SCCL and CMPFO in their ICT related projects/activities

1.2. e-Governance applications/Portals

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)
- <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)
- 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, PFMS, etc.



1.3. e-Governance Initiatives: Various schemes related e-gov applications developed are as under:

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

To facilitate ease of doing business, a unified platform of SWCS is designed which includes already operational module for approval of mining plan and mine closure plan in a time bound manner and integration with National Single Window Clearance System (NSWCS).

A module named PRIMS (Project Information Management System) module made operational. This module tracks the coal production mines wise on daily and monthly basis and also facilitate Ministry in monitoring coal production and further expeditious implementation of coal mines. It also tracks the details of the dispatch of coal from the coal mines.

ii. Coal Import Monitoring System (CIMS) has been developed and maintained for importers to submit advance information in an online system for import of coal items. This portal will enable 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. The Website of the Ministry (<https://coal.gov.in>) is an integral part of any organization. Website of Ministry 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 improved and enriched by adding latest Coal Statistics such as coal production Supply, Coal block allocation auction of coal mines, Safety in coal mines, Acts Policies, Citizen Charter, Sustainable Development, Technology Roadmap, Coal Gasification, Tender notices, Advertisement, Annual reports, Events, Press releases, activities held and to be held regarding Azadi Ka Amrat Mahotsav (AKAM) etc. Website is updated regular and enriched by adding Major achievement and by adding video content and photo galleries (Programme /Event wise) etc. Paying due attention to ensure timely updation of the website. Throughout the reporting year the zero downtime has been maintained for the citizen. The website is GIGW compliant and certified by STQC.

iv. 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. It is fully functional in Ministry of Coal. There is no physical file movement in the Ministry. Web VPN support for senior officials has been extended for non-NICNET nodes / laptops to ensure nonstop working in e-Office Platform from outside office. NIC email facility has been provided to all the officials in the Ministry to access the



system and necessary operational training is provided to ministry officials from time to time. Ministry of Coal has successfully migrated into the new version of e-toffice 7.x.

- v. **Star Rating of Coal Mines** – 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.

Ministry has developed a web portal called Star Rating of Coal Mines to identify the best performers in terms of above-mentioned areas and give them due recognition. The ratings awarded range from Five Star to NO Star, comprehensively evaluating each mine's achievements.

- vi. **Koyla Darpan Portal (Coal Dashboard)**– 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. Data related to Coal production and Coal Dispatch is fetched from Coal India Limited and its subsidiaries, Singareni Collieries Company Limited (SCCL), Neyveli Lignite Corporation India Limited (NLCIL), CCO through API. 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. Koyla Darpan dashboard of Ministry

of coal 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. Portal comprises different type of graphical reports with respect to Coal Production and Coal Dispatch.

- vii. A Coal Task Master portal has been created for real time monitoring of instructions and decisions of key projects, tasks and activities assigned to different sections of the Ministry of Coal for making effective decisions, tracking, information sharing and cross functional learning.
- viii. e-HRMS (Human Resource Management System) The project of Department of Personnel and Training – e-HRMS was customized and implemented for the Ministry. It provides various online facilities related to services of Cadre officials of DoPT. The facilities include maintenance of eservice book, leave, tour, training, LTC, deputation online using a work flow. The service books of all officials were digitized, authenticated by individual and Administration and software was customized for work flow of the Ministry. Employees shall not be dependent for data updating on administration, but they may themselves update the data with their login subject to verification by concerned administration. They will be able to track status and match details instantly.
- ix. Video Conferencing facility – A Studio based Video conferencing (VC) and Desktop based VC (BharatVC), a secure communication facility provided by NIC in the ministry was extensively used by Secretary and other senior officers of the Ministry on daily basis for monitoring the coal production and offtake and supply to Power Generation



projects in India with Coal India Limited and its Subsidiaries, SCCL and NLCIL, Conduction Board Meeting, Sub-Group Meeting, etc. This year we have conducted many National and International video conferences. Around 750 Video Conferencing sessions were conducted successfully during this year. This facility is successfully being used by Secretary (MOC) during PRAGATI meetings taken by Honourable Prime Minister.

x. Schemes on 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.

xi. PM GatiShakti Cell: The PM GatiShakti National Master Plan (NMP) portal is a technology backed infrastructure development platform on Pan-India level - GIS based / data-based decision support system for integrated planning, synchronized implementation, and project monitoring under the administrative control of Department of Promotion of Industry & Internal Trade (DPIIT), Ministry of Commerce and Industry. It is an integrated platform that gives a detailed visualisation of trunk and utility infra, social and economic assets, network of multimodal connectivity infrastructure, public utility infra, land revenue maps, logistics facilities, skilling centres, hospitals, forest, wildlife sanctuary, etc.

The NMP has been developed as a data-based decision support system with project planning tools, dynamic dashboards, MIS report

generation, etc. to support the line Ministries/ Depts and States/UTs in infrastructure planning and implementation.

A dedicated PM GatiShakti Cell has been created in the Ministry as desired by DPIIT to ensure the Project Planning of projects on NMP Portal.

Ministry of Coal has identified 3 Layers having the desired attributes, which have been shared with BISAG-N, a technical partner of DPIIT and these layers have been incorporated in PM GatiShakti (NMP) Portal.

BISAG-N will facilitate the data interoperability across all platforms; among NMP, Individual portal(s) of Ministries/ Departments/ States & UTs and other(s) portal (identified by the Ministries/ Departments/ States & UTs) for integration with PM Gati Shakti NMP.

xii. Cyber Security of Ministry of Coal:

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 a SSL (Secure Sockets Layer) certificate to make them more secure.

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 effective mitigation 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.

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.

Endpoint Detection and Response (EDR) has been installed in all the Desktops, Laptops etc. to monitor real time details of incidents on a regular basis. EDR tools typically provide detection, investigation, threat hunting, and response capabilities.

A “Workshop on Cyber Security” aimed to sensitizing the CPSUs and Organizations under the Ministry’s administrative control about the prevailing cyber security challenges has been organized. The workshop served as a platform for dissemination insights and advocating the adoption of best cyber security practices to fortify the resilience of their respective organizations, Cyber Jagrookta Diwas (CJD) is being observed on every first Wednesday of the month and a webinar is being conducted for all Ministry officials for better cyber awareness.

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 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.



