

PAIMANA Portal

Infrastructure Project Monitoring Platform

Edited by **ARCHANA SHARMA**

The PAIMANA Portal (ipm.mospi.gov.in) is a flagship initiative of the Ministry of Statistics and Programme Implementation (MoSPI), envisioned to serve as a unified digital platform for monitoring, evaluation, and dissemination of data related to infrastructure and project management. PAIMANA was formally launched on 25th September by the Hon'ble Minister of State for Statistics and Programme Implementation, Shri Rao Inderjit Singh, marking a significant milestone in the Government's commitment to transparency and data-driven governance.

The portal enhances accountability by ensuring real-time access to reliable project information, thereby strengthening evidence-based decision-making and enabling efficient governance. It comprehensively captures the implementation status of projects worth ₹150 crore and above, covering over 1,700 projects across more than 20 Ministries, with data being regularly reported by Line Ministries, Departments, and Implementing Agencies.



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The PAIMANA Portal, developed by MoSPI, provides a unified digital platform for monitoring and evaluation of high-value infrastructure projects across India. Covering projects worth over Rs. 150 crore, it enhances transparency, supports real-time decision-making, and ensures better coordination among stakeholders. It enables evidence-based governance and helps ensure timely monitoring of critical national projects.



The National Informatics Centre (NIC) conducts periodic project review meetings with the Department and continuously implements systemic improvements to accelerate project execution. These efforts play a vital role in identifying bottlenecks, analyzing time and cost overruns, and facilitating timely corrective measures, ultimately promoting the culture of performance-oriented and transparent project management across the Government ecosystem.

Technology Stack

- **Frontend:** HTML, CSS responsive interface with Bootstrap for UI design
- **Database:** MS SQL for structured data storage
- **Hosting & Infrastructure:** NIC Cloud for secure and scalable deployment
- **Analytics & Visualization:** SSRS for Integrated BI tools and dashboards with drill-down features
- **Security:** Role-based access control, SSL

encryption, and compliance with government cybersecurity standards

- **APIs & Integration:** RESTful APIs for seamless data exchange with other government platforms
- **Prototype:** Figma for Prototyping and wireframe

Software Architecture

The system follows a layered architecture comprising several key components. Multi-layered architecture ensures scalability, security, and effi-

MOSPI has introduced a one-stop Infrastructure web platform called PAIMANA which serves as a reliable data source for monitoring the progress of ongoing Central Sector infrastructure projects costing more than Rs. 150 crores. By integrating monitoring and analytics into a unified platform, PAIMANA provides the Ministries with powerful actionable insights, strengthens accountability, and helps translate ambitious investments into early outcomes that improve people's lives and accelerate nation-building.

NIC has played a pivotal role in advocating for ICT adoption and in overseeing the implementation of technology-led solutions across the Ministry. I have full confidence that NIC will continue this excellent work, providing the necessary technical support and expert guidance to ensure that ICT services are implemented successfully, always with the ultimate aim of benefitting the citizen.



Dr. Saurabh Garg, IAS
Secretary, Ministry of Statistics and Programme Implementation

cient data exchange across multiple components. Data entry and integration are managed through secure interfaces where ministries and agencies upload project information. Remote data capture mechanisms fetch information from external systems using RESTful APIs. It interacts through the load balancer, which manages and distributes incoming requests efficiently across different servers to maintain performance and reliability. Supporting components such as Enterprise Libraries, Relay Service, Logger Service, and Reporting Service (SSRS) provide utility functions, communication, logging, and report and Dashboard generation.

It is also integrated with Legacy Data from older systems to maintain historical continuity.

Overall, this architecture enables seamless integration, validation, reporting, and visualization for government projects in real time, ensuring reliability, transparency, and informed decision-making. Automated validation processes ensure data accuracy, while monitoring dashboards enable continuous tracking of project progress. Authorized users can review and analyze data to identify bottlenecks and assess overall status.

Salient Features

The platform serves as a centralized project monitoring system, providing a single-window interface for ministries, departments, and implementing agencies to upload, tracks, and review project information. It features real-time dashboards with drill-down capabilities, enabling users to monitor progress across sectors, states, and timelines. Through secure RESTful APIs, the system ensures seamless data capture and integration from external servers. A role-based access control mechanism safeguards data and ensures accountability by granting customized access rights to different user categories.



▲ Fig 9.2 : PAIMANA was launched on 25 September 2025 by Hon'ble MoS (S&PI), Shri Rao Inderjit Singh

The platform also features an Interactive Reporting Interface, designed to generate customized, downloadable, and data-rich reports for policymakers, administrators, and stakeholders. This system-generated reporting module, developed using SQL Server Reporting Services (SSRS), produces an 80-page comprehensive report with advanced visualization informatics, seamlessly blending text, tables, graphs, and charts. The reports provide detailed insights into the five outstanding projects, highlighting their progress, achievements, financial status, and critical milestones through clear and visually engaging analytics.

Beyond static summaries, the interface supports dynamic filtering and drill-down analysis, empowering users to explore project data from multiple dimensions. Its analytics and decision-support features enable trend analysis, forecasting, and bottleneck identification, thereby strengthening strategic planning and informed decision-making. With a mobile-responsive interface, users can conveniently monitor project

progress from any device.

Built on secure NIC Cloud infrastructure, the system adheres to government cybersecurity and data protection standards. Furthermore, its modular and scalable architecture allows seamless integration of new features, datasets, and emerging technologies—ensuring long-term adaptability, sustainability, and continuous improvement in project monitoring and evaluation.

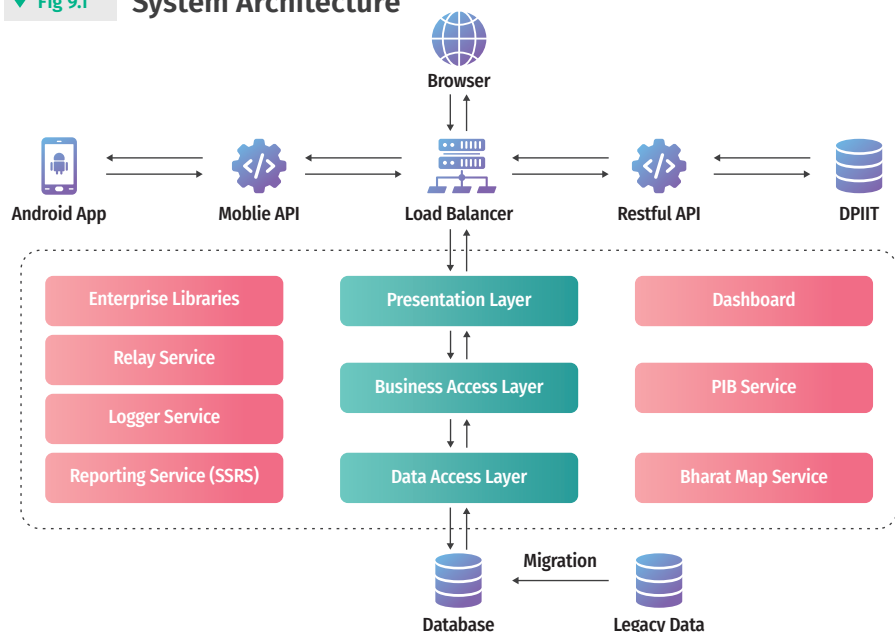
Impact and Benefits

The system enhances transparency by promoting accountability through open and reliable project information. It improves efficiency in monitoring by enabling real-time progress tracking, reducing delays in project execution. Policymakers benefit from informed decision-making, supported by accurate analytical insights that guide effective interventions. The platform ensures resource optimization by facilitating better allocation and utilization of financial and human resources. It also fosters stakeholder collaboration, strengthening coordination among ministries, departments, and implementing agencies. Ultimately, the system delivers greater public value by ensuring timely project completion and improving service delivery to citizens.

Way Forward

Going ahead, the PAIMANA Portal will integrate advanced analytics, AI-driven forecasting, and enhanced mobile accessibility to further strengthen project monitoring and evaluation. The AI-driven forecasting will utilize machine learning to predict time and cost overruns, resource needs, and potential risks, enabling timely and data-backed interventions for improved project outcomes. Continuous stakeholder engagement and system enhancements will ensure greater usability, stronger decision support, and alignment with national development priorities.

▼ Fig 9.1 System Architecture



Contact for more details

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