



## General Studies-3; Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

### Infrastructure Challenges in India

#### Introduction

- Infrastructure is a key driver of India's economy and is seen as a catalyst for growth in sectors such as manufacturing, services, and logistics.
- The government is heavily investing in infrastructure development.
- Issues such as **cost overruns, delays, and lack of efficient project management** remain major obstacles to achieving this goal.

#### Government Initiatives

- **PM Gati Shakti National Master Plan (NMP)** aims to bring multiple departments together on an integrated platform to ensure **coordinated planning** and implementation.
- **National Logistics Policy (NLP)** focuses on **streamlining logistics operations** to improve India's ranking in the global logistics performance index.
- **Smart Cities Mission** targets the development of urban infrastructure with a focus on sustainability, technology integration, and improved quality of life.
- **Capital Expenditure in Budget 2024** reflects the government's strong emphasis on creating long-term infrastructure assets that can contribute to GDP growth.

#### Challenges in Infrastructure Development

- A Ministry of Statistics and Programme Implementation report highlights that **431 projects with investments of ₹150 crore or more are facing cost overruns of ₹4.82 lakh crore.**
- These overruns are often due to **delays in project completion, with some projects being delayed by over 60 months.**

- A significant **gap exists in the planning stages**, particularly in urban infrastructure projects managed by **local self-government institutions**.
- Projects require **multiple approvals from different agencies**, which slows down implementation.
- Many projects **lack adequate oversight from skilled project managers**, which affects timelines, quality, and the overall success of the projects.
- The collapse of bridges and other infrastructure exposes the **weakness in quality control during construction**.
- Existing **practices in project management are outdated**, lacking the use of **modern tools** like **real-time data management**.
- **Lack of accountability and transparency** during project implementation often leads to **substandard quality**.
- Ministries and departments working in silos create challenges in the integrated implementation of projects.

## International Best Practices

- The **Infrastructure and Projects Authority (IPA) in United Kingdom** focuses on improving the delivery of major infrastructure projects through established processes and regular audits.
- **With centralized project management agencies, China** ensures **end-to-end project delivery** through **strict timelines** and high-quality standards.
- **Saudi Arabia** has adopted **Project Management Offices (PMO)** within ministries to oversee infrastructure projects, with a clear focus on **accountability** and **efficient resource utilization**.
- These global examples show the importance of **dedicated agencies for project management**, **accountability**, and **real-time progress tracking**.

## Way Forward

- Establish dedicated **Project Management Institutes** akin to the **Institute of Chartered Accountants of India**, to train professionals in **modern project management techniques**.
- Use **GIS-based ERP systems** for **real-time monitoring and tracking progress**, which can improve accountability and transparency.
- **India must learn from countries like the UK, China, and Saudi Arabia**, where dedicated infrastructure management authorities ensure timely project delivery.
- **Establish stricter quality control mechanisms** to prevent issues such as the collapse of bridges and buildings.
- Introduce a **single-window system** for all project clearances to reduce bureaucratic delays and speed up project initiation.
- **Implement transparent procurement processes** and ensure regular audits to reduce corruption and governance issues.

## Conclusion

- With India aiming to become a **developed nation by 2047**, ensuring **future-ready infrastructure** is not only a necessity but also a cornerstone for the nation's socio-economic progress.