



## Collapse of Multiple Infrastructures

For Prelims: [Corruption Perceptions Index \(CPI\)](#), [Morbi Bridge](#), [Members of Parliament Local Area Development Scheme \(MPLAD\)](#), [Covid-19](#), [PM Gati Shakti Scheme](#), [Bharatmala scheme](#), [IIPDF \(India Infrastructure Project Development Fund\) Portal](#)

For Mains: Building Resilient Infrastructure for Development and Disaster Mangement.

[Source: LM](#)

### Why in News?

Recently, several [physical infrastructures](#), like **bridges** in **Bihar** and **airport canopy structures** in **Delhi** and **Rajkot** of Gujarat collapsed.

### What are the Causes of the Collapse of Physical Infrastructures?

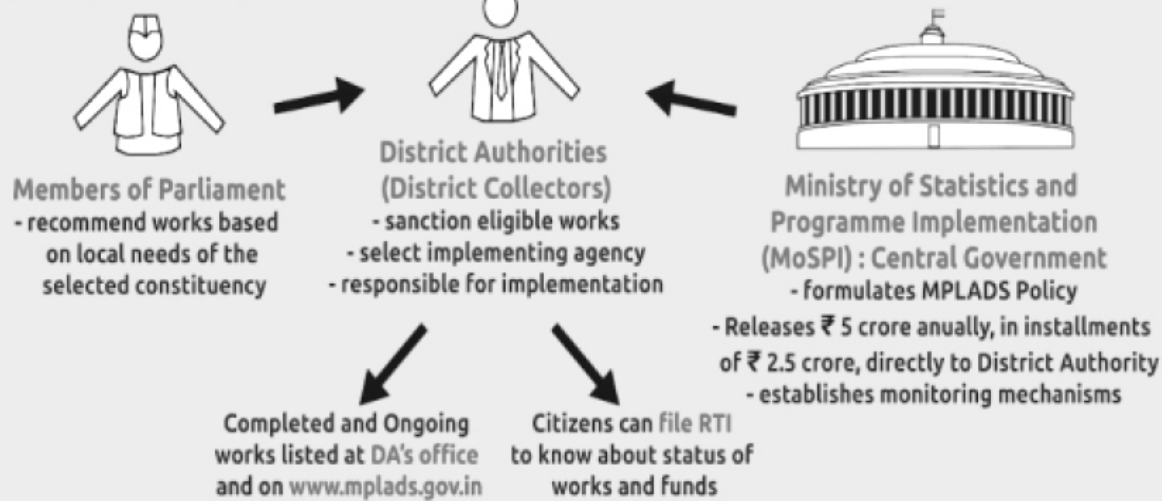
- **Natural causes:**
  - **Heavy Rainfall: Prolonged and intense rainfall** can saturate the soil and increase the weight of bridge structures, leading to potential failures.
    - In case of **Bihar**, significant water flow from upstream Nepal has also contributed to the factor.
  - **Disasters:** Disasters like earthquakes can cause **weakening of infrastructure**.
- **Administrative Causes:**
  - **Corruption: Corruption in administration and tender allocation causes administrative failures related to the implementation and monitoring of projects.**
    - **For example-** India ranked 93 out of 180 countries on the [Corruption Perceptions Index \(CPI\)](#) for 2023.
  - **Management issue:** Lack of proper maintenance, monitoring and management of crowds leads to infrastructure failure.
    - **For example:** One of the reasons for the collapse of the [Morbi Bridge](#) was failure in regular maintenance and crowd management.
- **Procedural Causes:**
  - **Failure to Follow Design Protocols:** Deviations from established engineering designs and safety protocols can lead to **structural vulnerabilities**.
  - **Poor Quality Control:** Lack of **inspections and insufficient** quality control measures during construction can result in undetected flaws that compromise safety.
    - The use of inferior materials can significantly **weaken structural integrity**, reducing the capacity to bear environmental stresses.

### Which are Schemes for Building Rural Infrastructure?

- [Members of Parliament Local Area Development Scheme \(MPLAD\)](#)

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## How does MPLADS work?



- Member of Legislative Assembly Local Area Development Scheme (MLALAD):
  - It is the state's version of a central government scheme- **MPLAD**.
  - The objective of this scheme is to **create local need-based infrastructure**, to create assets of public utility and to remove regional imbalances in development.
  - The **MLALAD programme** provides funding for each constituency directly from the state government.
  - While **MLAs and MPs** do not directly receive the funds, they can recommend projects for the scheme.
  - The projects funded by them are usually restricted to “**durable infrastructure work**”, from repairing roads to building community centres.
  - The funds have also been used for natural disaster relief in some states, as in the case of **Covid-19**.
- **Pradhan Mantri Gram Sadak Yojana:**
  - It was **launched in 2000** to provide connectivity, **by way of an all-weather road to unconnected habitations**.
  - **Eligibility: Unconnected habitations** of designated population size (500+ in plain areas and 250+ in North-Eastern States, Himalayan States, Deserts and Tribal Areas as per 2001 census) in the core network for uplifting the socio-economic condition of the rural population
  - **Latest Funding Pattern:** The Union Government bears **90%** of the project cost in respect of projects sanctioned under the scheme in North-Eastern and Himalayan States, whereas for other states the Union Government bears **60%** of the cost.

## Other Major Initiatives for Building Physical Infrastructure

- [PM Gati Shakti Scheme](#)
- [Bharatmala scheme](#)
- [IIPDF \(India Infrastructure Project Development Fund\) Portal](#)

## Way Forward

- **Administrative Reforms:** It will ensure better monitoring and implementation of projects with a transparent system.
- **Adopting Modern Engineering Practices:** Utilise advanced design techniques and materials that enhance durability.
- **Public-Private Partnerships (PPPs):** Encourage collaboration between government and private

sector for funding and expertise to bring more investments.

- **Strict Regulatory Standards:** Implement rigorous standards for materials and construction practices.
- **Regular Inspections:** Conduct frequent assessments to ensure compliance with safety and quality benchmarks.
- **Resilience Planning:** Design infrastructure to withstand climate change impacts and natural disasters.
- **Capacity Building:** Invest in training programs for engineers, architects, and construction workers to enhance skills.

**Drishti Mains Question:**

Q. Assess the role of infrastructure development in achieving sustainable economic growth in India. What are the key challenges faced in this sector?

**UPSC Civil Services Examination, Previous Year Question (PYQ)**

**Mains:**

Q. "Investment in infrastructure is essential for more rapid and inclusive economic growth." Discuss in the light of India's experience. **(2021)**

PDF Reference URL: <https://www.drishtias.com/printpdf/collapse-of-multiple-infrastructures>

