Disaster Management · GS - III

Road accidents in India are not merely a consequence of human negligence but also reflect deficiencies in infrastructure planning and engineering. Critically examine the role of road safety audits, scientific project preparation and institutional accountability in reducing road fatalities.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 20/11/2026	GS - III	Disaster Management

MARKS	WORD LIMIT
15	~250 words

Answer Hint

Road accident black spots, Detailed Project Reports, road safety audits, Motor Vehicles Act 1988, engineering deficiencies, Safe System Approach, contractor accountability, NHAI, road infrastructure governance.

Model Answer

Introduction

Road safety is a major public safety and governance challenge in India. Accidents frequently result not only from human errors but also from defective road design, inadequate maintenance and poor infrastructure planning.

Role of Engineering and Project Planning

1. **Identification of black spots:** Accident data helps identify high-risk locations and prioritise corrective engineering interventions.
2. **Scientific DPRs:** Detailed Project Reports should incorporate traffic projections, geometric design, drainage, pedestrian facilities and road safety requirements.

3. **Road safety audits:** Independent audits at planning, design, construction and operational stages can identify potential hazards.
4. **Forgiving road design:** Proper signage, crash barriers, safe intersections and pedestrian infrastructure reduce the severity of accidents.
5. **Accountability:** Contractors, consultants and supervising authorities must be held responsible for proven design and construction deficiencies.

Institutional and Policy Measures

- Implement the four pillars of road safety: engineering, enforcement, education and emergency care.
- Strengthen coordination among MoRTH, NHAI, state governments and local authorities.
- Use GIS, accident databases and technology-based monitoring to identify hazardous stretches.
- Ensure transparent procurement, independent quality checks and timely maintenance.
- Strengthen compliance with the Motor Vehicles Act, 1988, and relevant road safety standards.

Conclusion

Achieving zero accident black spots requires a shift from reactive repairs to preventive and accountable infrastructure planning. Scientific DPRs, independent safety audits and institutional responsibility must become integral to India's highway development strategy.

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