



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP to ASHA GAS SERVICE

Objective of the JRM Report

This JRM report is designed to ensure compliance with the Central Motor Vehicle Rules, 1989 (CMVR), AIS 140 standards, and the Road Transport Safety Policy (RTSP). It provides a comprehensive risk assessment for the transportation of hazardous materials along specified routes. By integrating these legal frameworks, the report offers a broad strategy for identifying and mitigating route-specific risks.

Regulatory Compliance

The report complies with the Central Motor Vehicles (Eleventh Amendment) Rules, 2022, mandating safe transportation practices for N2 and N3 category vehicles carrying hazardous materials. These rules require detailed route assessments, especially regarding road conditions, speed limits, and risk areas, to ensure safety compliance.

Risk Management Strategy

This report categorizes transportation routes into high-risk and medium-risk areas, with a focus on factors such as sharp turns, accident-prone regions, and elevation changes. The goal is to provide actionable

recommendations to minimize these risks, including speed regulations, driver warnings for hazardous zones, and the option of alternate routes.

Compliance with the Road Transport Safety Policy (RTSP)

The report integrates RTSP provisions, including mandatory driving hours, rest periods, and nighttime driving restrictions. It ensures that drivers follow official guidelines, such as taking prescribed rest breaks and avoiding dangerous road conditions like poor visibility, heavy crowds, or high-traffic areas during peak hours.

Emergency Preparedness and Response

The report highlights the significance of predetermined emergency stops for refueling, rest, and overnight stays. It includes protocols for safe responses to road hazards, alternative routes, and rerouting processes if roads are closed or severe weather arises. This aligns with the RTSP emphasis on driver safety and rapid emergency response.

Environmental Considerations

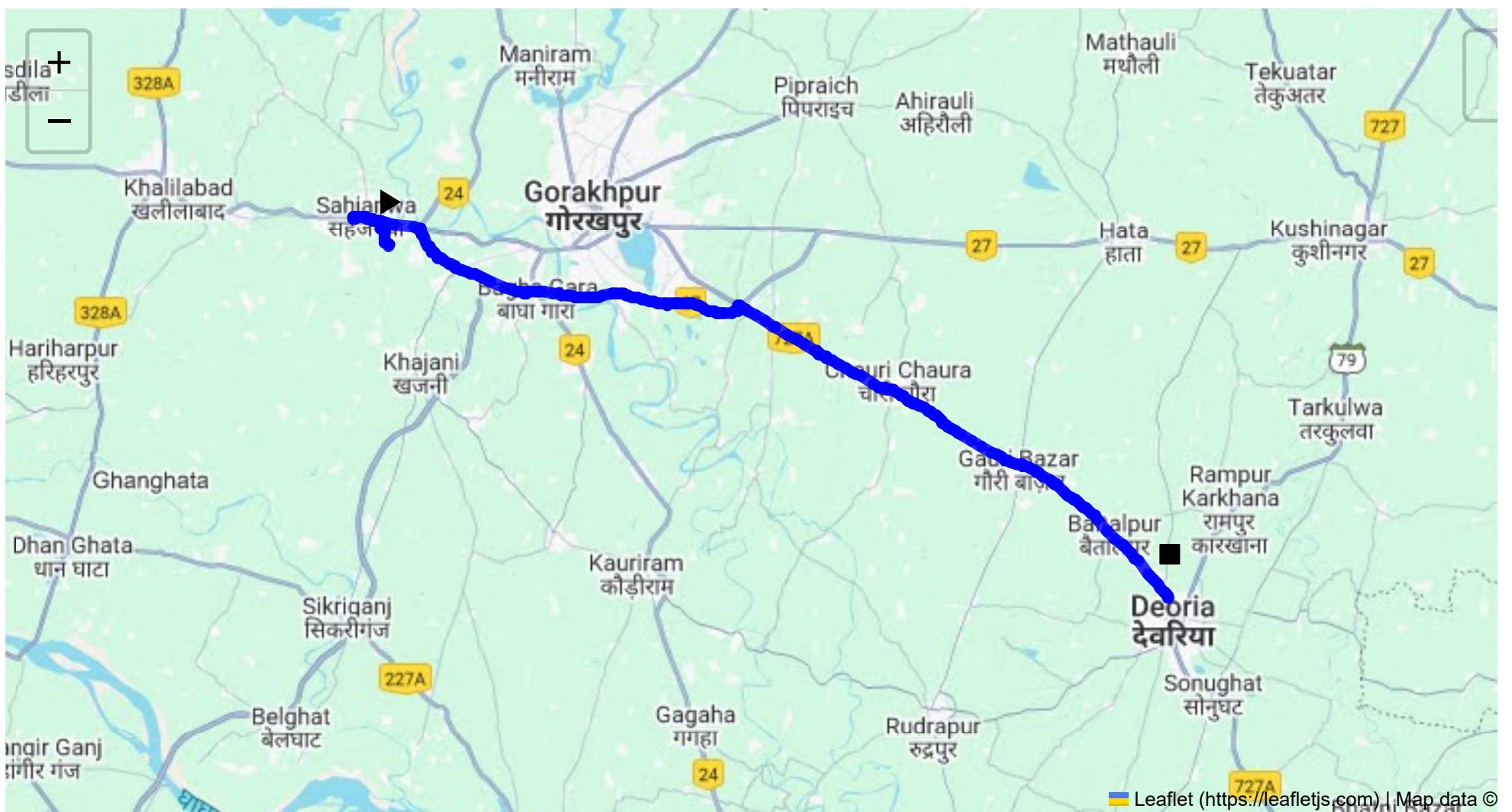
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental impacts during transport.

Journey Risk Mitigation

The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety norms.

Compliance with Government Directives

This report fully adheres to governmental directives regarding hazardous material transportation, implementing mandatory speed limits, nighttime driving restrictions, and comprehensive driver briefings and real-time alerts about route-related risks.



Route Summary:
Total Distance: 70.05 km
Estimated Duration: 1.5 hours
Adjusted Duration (Heavy Vehicle): 1.9 hours
Start: (26.735959, 83.229398)
End: (26.51604, 83.77446)

Welcome to the Journey Risk Management Study

Route Safety Analysis: GIDA Industrial Area Phase 1, Sahjanwa to Deoria, Mehra

1. Overview of the Route Map:

- The route spans approximately 70.05 kilometers and usually takes about 1.5 hours for heavy vehicles. It primarily traverses through highways and smaller roads, connecting Sahjanwa and Deoria in Uttar Pradesh, India. The journey involves navigating both urban and rural settings.

2. Typical Weather Conditions and Potential Hazards:

- **Weather:** The region experiences a humid subtropical climate with extreme summers (up to 40°C) and cool winters (down to 5°C). The monsoon season (June to September) can bring heavy rainfall.
- **Hazards:** During monsoons, roads may face waterlogging and reduced visibility. Summers can cause road surfaces to soften, increasing vehicle wear.

3. Analysis of Traffic Patterns:

- **Peak Hours:** Typically from 8:00 to 10:00 AM and 5:00 to 7:00 PM. Congestion is more pronounced near urban centers.
- **Congestion-Prone Areas:** Traffic often builds up near major intersections and market areas, particularly at the outskirts of Gorakhpur and Deoria.

4. Assessment of Road Quality and Infrastructure:

- **Road Quality:** While main highways are generally in good condition, secondary roads can be patchy, with potholes and narrower lanes.
- **Infrastructure:** Road signage can be inconsistent, and lighting in rural areas might be inadequate.

5. Suggestions for Alternative Routes:

- An alternative route via NH28 through Maghar and Gorakhpur offers a more consistent road quality but may increase travel time slightly.

6. Local Regulations Affecting Hazardous Material Transport:

- Transport of hazardous materials is subject to strict timing regulations, often limited during peak traffic hours and requiring special permits. Compliance with local environmental laws and EHS (Environmental, Health, and Safety) guidelines is mandatory.

7. Historical Incidents:

- There have been occasional reports of accidents involving heavy vehicles on poorly maintained roads, often due to speeding or mechanical failures, especially during adverse weather conditions.

8. Environmental Considerations:

- Sensitive areas include agricultural fields, local water bodies, and towns. Precautions should be taken to prevent contamination and minimize noise and air pollution.

9. Communication Coverage:

- Most of the route has good mobile network coverage; however, some rural stretches might experience brief dead zones. Using multiple network providers can mitigate connectivity issues.

10. Estimated Emergency Response Times:

- Urban areas (Sahjanwa and Deoria): 15-30 minutes response time.
- Rural areas: Can extend to 45-60 minutes, depending on proximity to nearest town or healthcare facility.

11. Overall Summary of Risk Assessment:

- **Risk Level:** Moderate

- **Key Risks:** Weather impacts, road conditions, traffic congestion, and potential delays in emergency response.
- **Recommendations:** Drivers should be trained in defensive driving techniques, equipped with adequate communication tools, and updated on real-time weather and traffic conditions. Regular vehicle maintenance checks and adherence to hazardous material regulations play a crucial role in maintaining safety.

This assessment highlights the importance of preparation and awareness for truck drivers navigating this route to ensure safety and compliance.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73690, 83.22947	15 KM/Hr	0.05 km
3	Turn	High	26.73697, 83.22939	15 KM/Hr	0.11 km
4	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km
5	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.48 km
6	Turn	Medium	26.74524, 83.22746	30 KM/Hr	1.28 km
7	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.31 km
8	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
9	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
10	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
11	Turn	High	26.75377, 83.20465	15 KM/Hr	4.28 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.95 km
12	Turn	Medium	26.74656, 83.25154	30 KM/Hr	9.04 km
13	Turn	Medium	26.74644, 83.25150	30 KM/Hr	9.07 km
14	Turn	High	26.69632, 83.47492	15 KM/Hr	33.13 km
15	Turn	High	26.69639, 83.47492	15 KM/Hr	33.16 km
16	Turn	Medium	26.69835, 83.47489	30 KM/Hr	33.40 km
1	U-Turn	High	26.698439, 83.4747268	10 KM/Hr	33.43 km
17	Blind Spot	Blind Spot	26.69844, 83.47473	10 KM/Hr	33.43 km
18	Turn	High	26.69857, 83.47481	15 KM/Hr	33.45 km
19	Turn	Medium	26.63752, 83.59723	30 KM/Hr	47.42 km
20	Turn	High	26.51628, 83.77465	15 KM/Hr	69.95 km

Emergency Locations

Found: 1 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Prakash Hospital	26.6957341, 83.4807387	30 km/h	Medium	34.10 km

Crowded Spots

Found: 1 college(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
1	college	BRD PG college	26.5161416, 83.7720277	30 km/h	Medium	69.84 km

Route Photos of Risky Spots



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.17 km

Coordinates: 26.75126, 83.22476



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 4.23 km

Coordinates: 26.75353, 83.20457



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 4.28 km

Coordinates: 26.75377, 83.20465



Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 8.95 km

Coordinates: 26.74681, 83.25111



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.04 km

Coordinates: 26.74656, 83.25154



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.07 km

Coordinates: 26.74644, 83.25150



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 33.13 km

Coordinates: 26.69632, 83.47492



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 33.16 km

Coordinates: 26.69639, 83.47492



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 33.40 km

Coordinates: 26.69835, 83.47489



Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Distance from Start: 33.43 km

Coordinates: 26.698439, 83.4747268



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 33.43 km

Coordinates: 26.69844, 83.47473



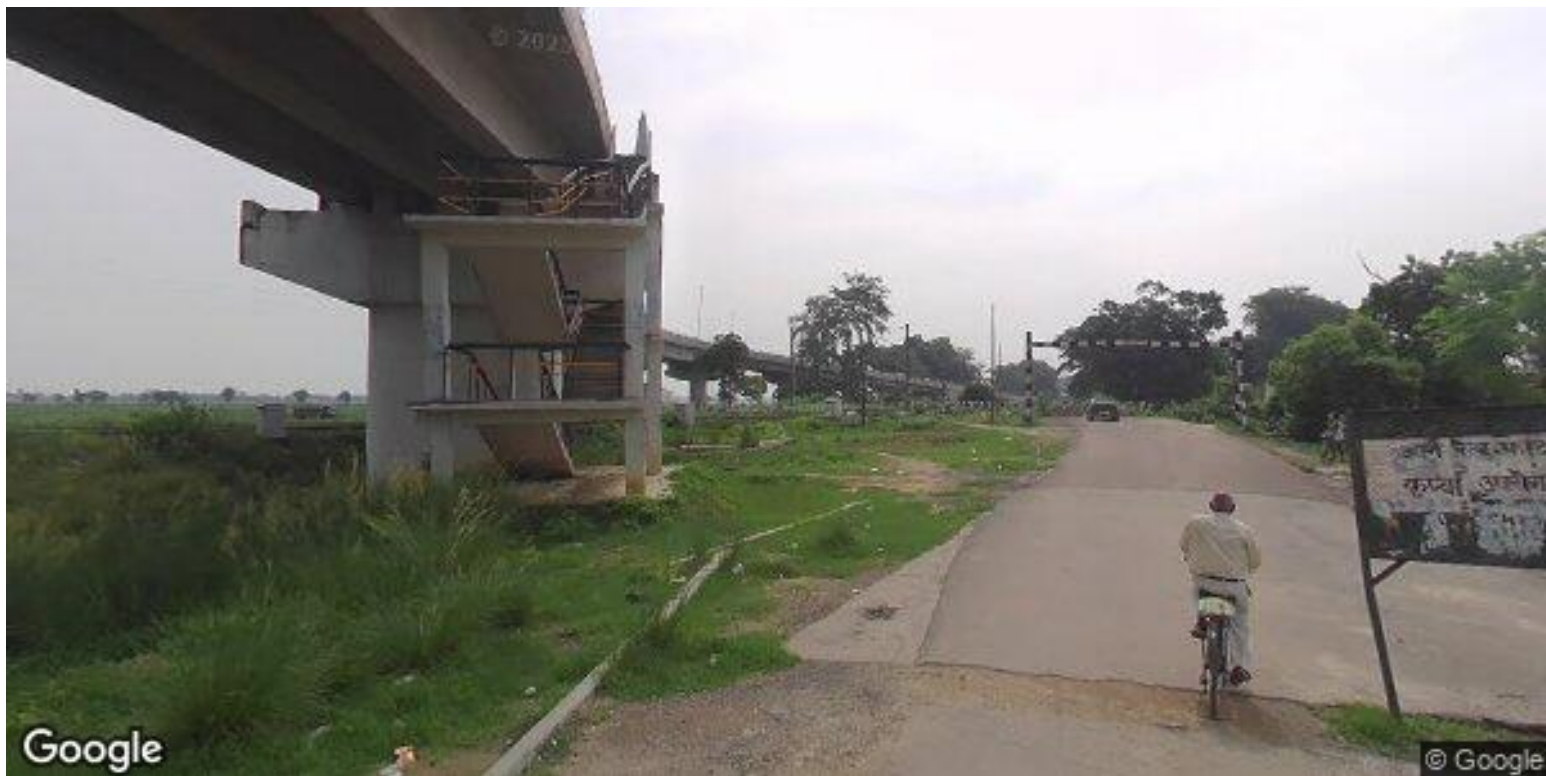
Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 33.45 km

Coordinates: 26.69857, 83.47481



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 47.42 km

Coordinates: 26.63752, 83.59723



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 69.95 km

Coordinates: 26.51628, 83.77465

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