



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO AHIRaulidan INDANE G

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

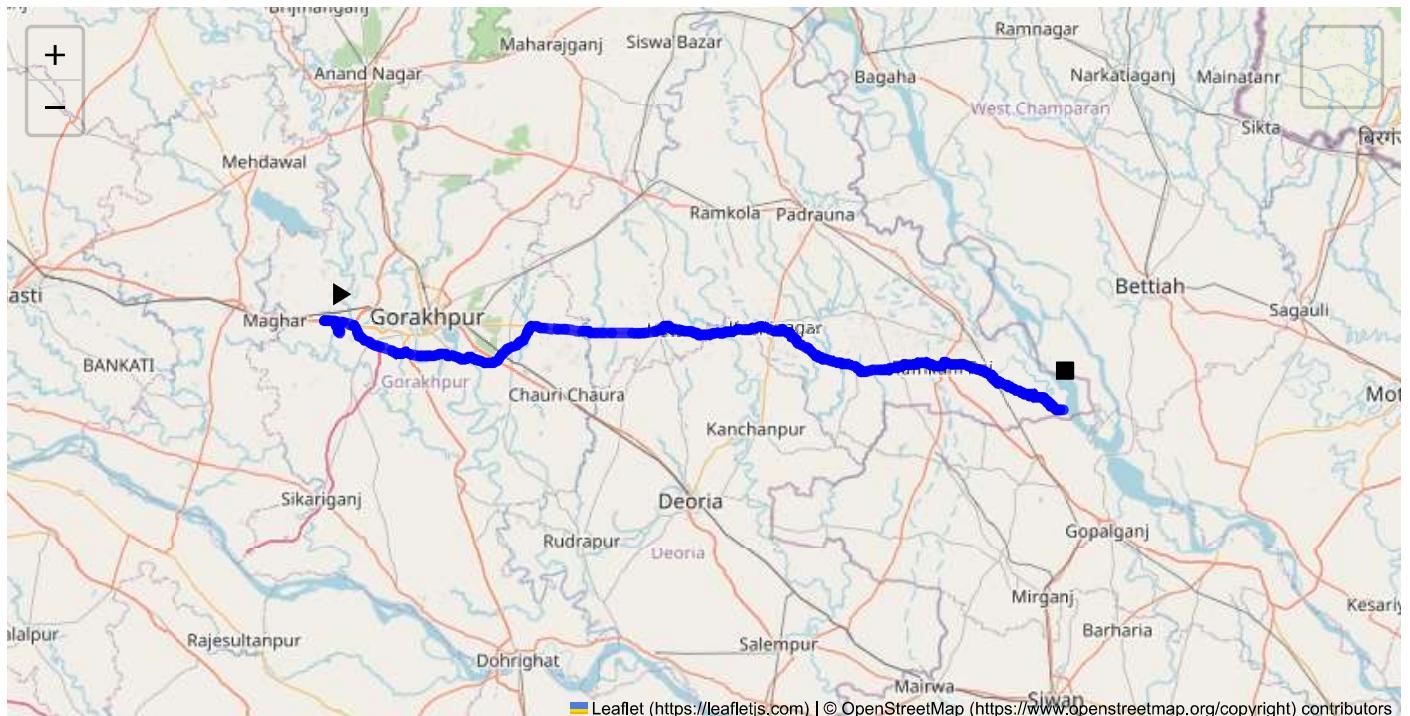
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 130.71 km
Estimated Duration: 2.7 hours
Adjusted Duration (Heavy Vehicle): 3.4 hours
Start: (26.735959, 83.229398)
End: (26.627665, 84.36817)

Welcome to the Journey Risk Management Study

**Route Safety Analysis from GIDA Industrial Area Phase 1,
Sahjanwa to Ahirauli Dan, Uttar Pradesh**

1. Overview of the Route Map

The route from GIDA Industrial Area Phase 1, Sahjanwa to Ahirauli Dan spans approximately 130.71 kilometers. The journey primarily follows state highways and local roads, intersecting urban, semi-urban, and rural landscapes. The major towns along the route include Gorakhpur and Deoria, which can be significant for detours or emergency halts.

2. Typical Weather Conditions and Potential Hazards

The region experiences a humid subtropical climate with hot summers, a monsoon season, and cool winters. Key weather-related hazards include:

- **Monsoon Season (June to September):** Heavy rains can cause waterlogging and flooding, leading to poor driving conditions and road blockages.
- **Winter Fog (December to February):** Reduced visibility due to fog can create hazardous driving conditions, especially in the early morning and at night.

3. Traffic Patterns and Congestion

- **Peak Hours:** The routes through Gorakhpur and Deoria experience heavy congestion during morning (8-10 AM) and evening (5-8 PM) rush hours.
- **Congestion-Prone Areas:** Entry and exits of Gorakhpur city, major intersections, and market areas are prone to traffic jams.

4. Road Quality and Infrastructure

- **Urban Areas:** Generally good road quality with well-marked lanes, though expect congested conditions near market areas.
- **Rural Areas:** Varied road conditions, with some segments being narrow and lacking shoulders; potholes are common.

5. Alternative Routes for Emergencies

- **Emergency Detour:** In case of roadblocks or extreme congestion, consider taking local roads through less congested rural paths, though these may have poorer infrastructure.

6. Local Regulations on Hazardous Material Transport

- Increased regulatory scrutiny and need for appropriate permits for transporting hazardous materials through populated towns like Gorakhpur.
- Consider restrictions on timings for heavy vehicles, especially in urban areas.

7. Historical Incidents

The region has witnessed incidents related to tankers and heavy vehicles, often due to road conditions or congestion-related mishaps. Focus on cautious driving is recommended.

8. Environmental Considerations and Sensitive Areas

- Proximity to agricultural lands and water bodies necessitates strict adherence to environmentally-friendly practices to prevent contamination.
- Rural areas may have higher ecological sensitivity that needs consideration.

9. Communication Coverage

- **Urban and Semi-Urban:** Generally good mobile network coverage.
- **Rural Areas:** Potential for coverage dead zones, especially in remote segments along the route.

10. Estimated Emergency Response Times

- **Urban Areas (Gorakhpur, Deoria):** Relatively prompt due to proximity of emergency services; within 30 minutes.
- **Rural Areas:** Delayed response expected, potentially over 60 minutes due to less accessibility.

11. Overall Summary of Risk Assessment

The route presents moderate risks primarily due to traffic congestion, variable road quality, and potential weather effects. Drivers need to be cautious during peak hours and vigilant due to poor rural road conditions and potential environmental regulations. Planning for weather conditions, especially during monsoons and winters, is crucial. Employ suitable communication tools to manage coverage gaps in rural zones. Understanding and adhering to local transport regulations remain pivotal.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73746, 83.22938	15 KM/Hr	0.08 km
2	Turn	High	26.73788, 83.22642	15 KM/Hr	0.32 km
3	Turn	Medium	26.73812, 83.22630	30 KM/Hr	0.48 km
4	Turn	High	26.74524, 83.22746	15 KM/Hr	1.14 km
5	Turn	High	26.74654, 83.22390	15 KM/Hr	1.63 km
6	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.15 km
7	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.21 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
8	Turn	High	26.75377, 83.20465	15 KM/Hr	4.26 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.12 km
9	Turn	Medium	26.74420, 83.52988	30 KM/Hr	40.58 km
10	Turn	Medium	26.74514, 83.53132	30 KM/Hr	41.00 km
11	Turn	Medium	26.74531, 83.74034	30 KM/Hr	62.06 km
12	Turn	Medium	26.74205, 83.75226	30 KM/Hr	63.34 km
13	Turn	Medium	26.73382, 83.79538	30 KM/Hr	67.74 km
14	Turn	High	26.68889, 84.17988	15 KM/Hr	108.39 km
15	Turn	High	26.69483, 84.18333	15 KM/Hr	109.34 km
16	Turn	High	26.68509, 84.23513	15 KM/Hr	114.72 km
17	Turn	High	26.68479, 84.23516	15 KM/Hr	114.76 km
18	Turn	Medium	26.68374, 84.23688	30 KM/Hr	114.88 km
19	Turn	High	26.67793, 84.25518	15 KM/Hr	116.91 km
20	Turn	Medium	26.67501, 84.25661	30 KM/Hr	117.26 km
21	Turn	High	26.67190, 84.25975	15 KM/Hr	117.67 km
22	Turn	Medium	26.67183, 84.26056	30 KM/Hr	117.81 km
23	Turn	Medium	26.66957, 84.26308	30 KM/Hr	118.03 km
24	Turn	Medium	26.66874, 84.26342	30 KM/Hr	118.25 km
25	Turn	Medium	26.66736, 84.26616	30 KM/Hr	118.54 km
26	Turn	Medium	26.64794, 84.31652	30 KM/Hr	124.05 km
27	Turn	Medium	26.64817, 84.31734	30 KM/Hr	124.20 km
28	Turn	Medium	26.64885, 84.31788	30 KM/Hr	124.29 km
29	Turn	Medium	26.64952, 84.31973	30 KM/Hr	124.43 km
30	Turn	High	26.64906, 84.32166	15 KM/Hr	124.63 km
31	Turn	Medium	26.64787, 84.32211	30 KM/Hr	124.84 km
32	Turn	Medium	26.64728, 84.32278	30 KM/Hr	124.92 km
33	Turn	Medium	26.64682, 84.32289	30 KM/Hr	124.99 km
34	Turn	Medium	26.64381, 84.33897	30 KM/Hr	126.62 km
35	Turn	Medium	26.63778, 84.34706	30 KM/Hr	127.66 km
36	Turn	Medium	26.63772, 84.34763	30 KM/Hr	127.77 km
37	Turn	High	26.63434, 84.35149	15 KM/Hr	128.20 km
38	Turn	High	26.63341, 84.35087	15 KM/Hr	128.40 km
39	Turn	Medium	26.63312, 84.35100	30 KM/Hr	128.48 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
40	Turn	Medium	26.63266, 84.35208	30 KM/Hr	128.55 km
41	Turn	High	26.63270, 84.35263	15 KM/Hr	128.64 km
42	Turn	Medium	26.63235, 84.35289	30 KM/Hr	128.69 km
43	Turn	Medium	26.63195, 84.35397	30 KM/Hr	128.77 km

Emergency Locations

Found: 1 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Gautam Budha National Hospital	26.744396, 83.9016042	30 km/h	Medium	78.38 km

Crowded Spots

Route Photos of Risky Spots



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.15 km

Coordinates: 26.75126, 83.22476



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 4.21 km

Coordinates: 26.75353, 83.20457



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 4.26 km

Coordinates: 26.75377, 83.20465



Risk Type: Roundabout
Risk Level: High
Speed Limit: 15 KM/Hr
Distance from Start: 8.12 km
Coordinates: 26.74681, 83.25111



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Distance from Start: 40.58 km
Coordinates: 26.74420, 83.52988



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 41.00 km

Coordinates: 26.74514, 83.53132



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 62.06 km

Coordinates: 26.74531, 83.74034



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Risk Type: Turn**Risk Level: Medium****Speed Limit: 30 KM/Hr****Distance from Start: 63.34 km****Coordinates: 26.74205, 83.75226**

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Risk Type: Turn**Risk Level: Medium****Speed Limit: 30 KM/Hr****Distance from Start: 67.74 km****Coordinates: 26.73382, 83.79538**



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 108.39 km

Coordinates: 26.68889, 84.17988



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 109.34 km

Coordinates: 26.69483, 84.18333



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 114.72 km

Coordinates: 26.68509, 84.23513



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 114.76 km

Coordinates: 26.68479, 84.23516



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 114.88 km

Coordinates: 26.68374, 84.23688



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 116.91 km

Coordinates: 26.67793, 84.25518



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 117.26 km

Coordinates: 26.67501, 84.25661



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 117.67 km

Coordinates: 26.67190, 84.25975



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Risk Type: Turn**Risk Level: Medium****Speed Limit: 30 KM/Hr****Distance from Start: 117.81 km****Coordinates: 26.67183, 84.26056**

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Risk Type: Turn**Risk Level: Medium****Speed Limit: 30 KM/Hr****Distance from Start: 118.03 km****Coordinates: 26.66957, 84.26308**



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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 118.25 km**Coordinates:** 26.66874, 84.26342

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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 118.54 km**Coordinates:** 26.66736, 84.26616



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 124.05 km

Coordinates: 26.64794, 84.31652



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 124.20 km

Coordinates: 26.64817, 84.31734



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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 124.29 km**Coordinates:** 26.64885, 84.31788

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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 124.43 km**Coordinates:** 26.64952, 84.31973



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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 126.62 km**Coordinates:** 26.64381, 84.33897

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Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 127.66 km**Coordinates:** 26.63778, 84.34706



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 127.77 km

Coordinates: 26.63772, 84.34763



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 128.20 km

Coordinates: 26.63434, 84.35149



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 128.40 km

Coordinates: 26.63341, 84.35087



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 128.48 km

Coordinates: 26.63312, 84.35100



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 128.55 km

Coordinates: 26.63266, 84.35208



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 128.64 km

Coordinates: 26.63270, 84.35263



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 128.69 km

Coordinates: 26.63235, 84.35289



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 128.77 km

Coordinates: 26.63195, 84.35397

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