



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO GHATI OM INDANE GRAM

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

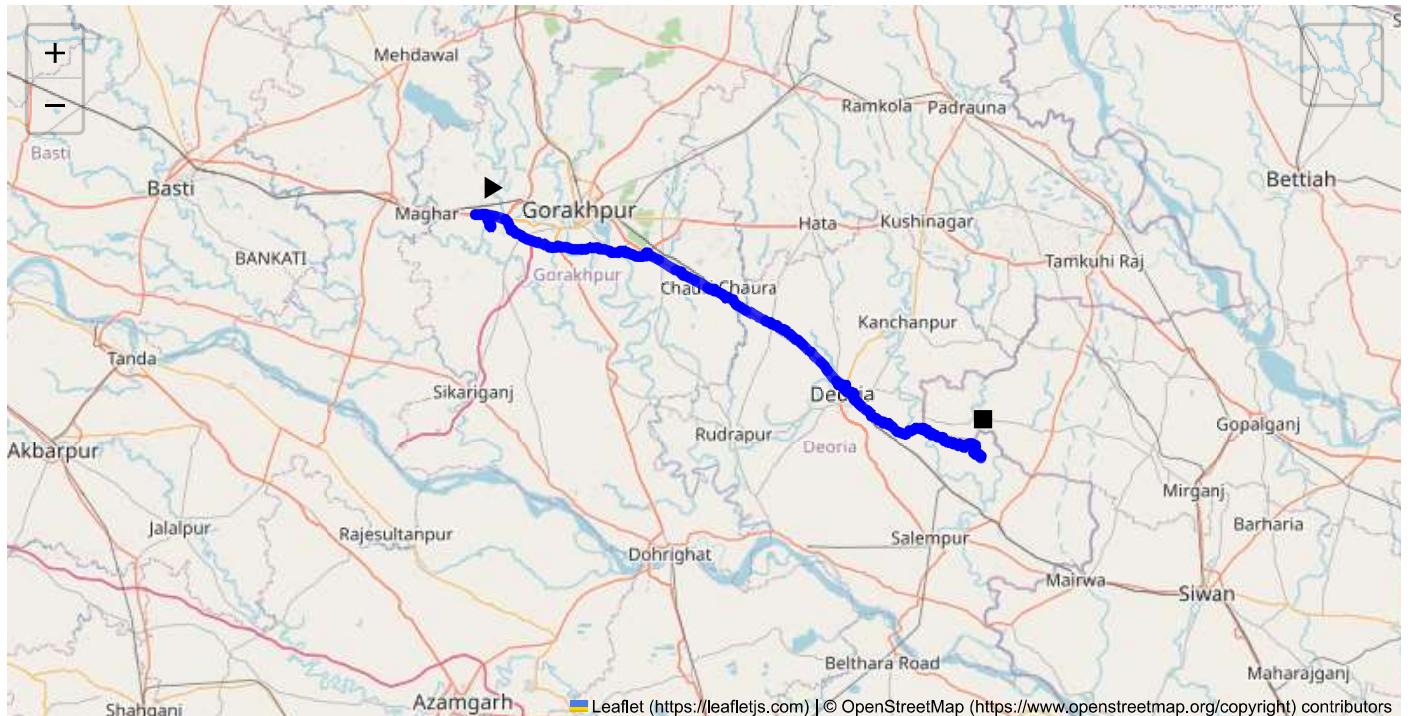
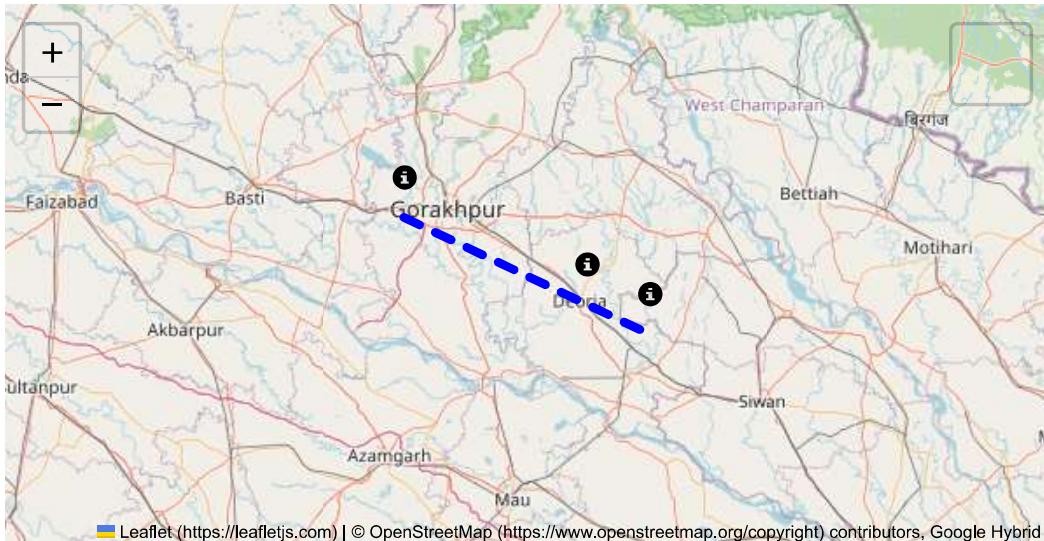
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 102.30 km
Estimated Duration: 2.6 hours
Adjusted Duration (Heavy Vehicle): 3.2 hours
Start: (26.735959, 83.229398)
End: (26.408233, 84.001857)

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route from GIDA Industrial Area Phase 1, Sahjanwa, to Demusa via Deoria Vaikunthpur Road covers approximately 102.30 kilometers. The journey progresses primarily through rural and semi-urban areas of

Uttar Pradesh, intersecting several small towns and agricultural zones.

2. Typical Weather Conditions and Potential Weather-Related Hazards

Uttar Pradesh experiences a subtropical climate with hot summers (March to June), heavy monsoons (July to September), and mild winters (December to February). Potential weather-related hazards include:

- **Monsoon Season:** Heavy rainfall may cause flooding and road obstructions.
- **Summer:** High temperatures could increase the risk of vehicle overheating.
- **Winter Fog:** Reduces visibility, particularly in December and January.

3. Analysis of Traffic Patterns

- **Peak Hours:** Traffic congestion is significant near urban centers during morning (7 AM - 10 AM) and evening (5 PM - 8 PM) hours.
- **Congestion-Prone Areas:** Sahjanwa and Deoria towns are likely to experience bottlenecks, especially at junctions and market areas.

4. Assessment of Road Quality and Infrastructure

- **Road Surface:** Generally mixed, with some well-maintained sections and others prone to potholes, especially during rainy seasons.
- **Infrastructure:** While the main road is paved, auxiliary roads in rural areas may be unpaved or narrow, posing challenges for large vehicles.

5. Suggestions for Alternative Routes for Emergencies

- **Option 1:** If Deoria Vaikunthpur Road is blocked, consider NH27 for a detour, which eventually connects back to the intended route.
- **Option 2:** Use local roads to connect with NH28 near Gorakhpur for an alternative route, though this may extend travel time.

6. Summary of Local Regulations Affecting Hazardous Material Transport

- **Permits Required:** Special permits for transporting hazardous materials across state lines.
- **Time Restrictions:** Possible restrictions on transporting hazardous goods during peak traffic hours.
- **Safety Protocols:** Compliance with national safety standards and protocols is mandatory.

7. Overview of Historical Incidents Involving Heavy Vehicles or Hazardous Materials

- Incidents:** Recorded incidents typically involve vehicle overturns due to poor road conditions and weather, with fewer direct reports on hazardous material leaks but heightened scrutiny post such incidents.

8. Environmental Considerations and Sensitive Areas

- Protected Areas:** The route does not pass through any major wildlife sanctuaries, but agricultural zones necessitate care to prevent environmental contamination.
- Water Bodies:** Several small water bodies and canals are concerns for spill risks.

9. Analysis of Communication Coverage

- Network Coverage:** Generally fair, but you've potential dead zones near remote rural areas. Mobile network can be unreliable.

10. Estimated Emergency Response Times for Different Route Segments

- Urban Areas:** Approximately 30-45 minutes due to better accessibility.
- Rural Areas:** Response time can extend to 60-90 minutes because of limited facilities and infrastructure.

12. Overall Summary of Risk Assessment

- Primary Risks:** Weather-induced road conditions, peak hour congestion, limited communication coverage, and environmental hazards related to hazardous materials transportation.
- Mitigation Strategies:** Prioritize route monitoring, follow appropriate safety regulations, ensure the availability of emergency contacts, and consider alternative routes preemptively.

Final recommendations involve driver training emphasis on local road conditions, regulatory compliance, and weather adaptability. Always maintain a contingency plan for detours and emergency situations to ensure safety and timely delivery.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73746, 83.22938	15 KM/Hr	0.14 km
3	Turn	High	26.73788, 83.22642	15 KM/Hr	0.32 km
4	Turn	Medium	26.73812, 83.22630	30 KM/Hr	0.48 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
5	Turn	High	26.74524, 83.22746	15 KM/Hr	1.14 km
6	Turn	High	26.74654, 83.22390	15 KM/Hr	1.63 km
7	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.15 km
8	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.21 km
9	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
10	Turn	Medium	26.69741, 83.47552	30 KM/Hr	33.23 km
1	U-Turn	High	26.698439, 83.4747268	10 KM/Hr	33.39 km
11	Blind Spot	Blind Spot	26.69857, 83.47481	10 KM/Hr	33.39 km
12	Turn	Medium	26.63752, 83.59723	30 KM/Hr	47.37 km
13	Turn	Medium	26.63761, 83.59795	30 KM/Hr	47.43 km
14	Turn	Medium	26.51335, 83.77639	30 KM/Hr	70.29 km
15	Turn	Medium	26.51260, 83.77721	30 KM/Hr	70.37 km
16	Turn	Medium	26.51258, 83.77806	30 KM/Hr	70.47 km
17	Turn	High	26.51385, 83.77994	15 KM/Hr	70.71 km
18	Turn	High	26.51211, 83.78687	15 KM/Hr	71.42 km
19	Turn	High	26.51305, 83.78707	15 KM/Hr	71.55 km
20	Turn	High	26.51288, 83.78804	15 KM/Hr	71.65 km
21	Turn	Medium	26.51267, 83.78810	30 KM/Hr	71.71 km
22	Turn	High	26.50673, 83.78564	15 KM/Hr	72.42 km
23	Turn	Medium	26.50561, 83.78700	30 KM/Hr	72.54 km
24	Turn	Medium	26.50548, 83.78702	30 KM/Hr	72.62 km
25	Blind Spot	Blind Spot	26.50516, 83.78678	10 KM/Hr	72.65 km
26	Turn	High	26.50066, 83.80042	15 KM/Hr	74.14 km
27	Turn	Medium	26.47172, 83.82778	30 KM/Hr	78.51 km
28	Turn	Medium	26.46778, 83.82835	30 KM/Hr	79.03 km
29	Turn	Medium	26.44536, 83.87074	30 KM/Hr	83.89 km
30	Turn	Medium	26.44367, 83.88259	30 KM/Hr	85.16 km
31	Turn	High	26.44747, 83.89368	15 KM/Hr	86.33 km
32	Turn	Medium	26.44841, 83.89403	30 KM/Hr	86.53 km
33	Turn	High	26.45194, 83.89924	15 KM/Hr	87.20 km
34	Turn	Medium	26.45035, 83.90499	30 KM/Hr	87.69 km
35	Blind Spot	Blind Spot	26.45023, 83.91061	10 KM/Hr	88.38 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
36	Turn	High	26.44965, 83.91053	15 KM/Hr	88.43 km
37	Turn	High	26.44741, 83.91713	15 KM/Hr	89.13 km
38	Turn	High	26.44568, 83.91682	15 KM/Hr	89.35 km
39	Turn	High	26.44522, 83.91887	15 KM/Hr	89.50 km
40	Turn	High	26.44461, 83.91890	15 KM/Hr	89.63 km
41	Blind Spot	Blind Spot	26.44391, 83.92240	10 KM/Hr	89.83 km
42	Blind Spot	Blind Spot	26.44363, 83.92233	10 KM/Hr	90.02 km
43	Blind Spot	Blind Spot	26.44307, 83.92479	10 KM/Hr	90.16 km
44	Blind Spot	Blind Spot	26.44096, 83.92422	10 KM/Hr	90.41 km
45	Turn	High	26.43904, 83.93416	15 KM/Hr	91.47 km
46	Turn	High	26.43881, 83.93414	15 KM/Hr	91.56 km
47	Turn	High	26.43750, 83.94019	15 KM/Hr	92.07 km
48	Turn	High	26.43696, 83.94020	15 KM/Hr	92.22 km
49	Blind Spot	Blind Spot	26.43632, 83.94407	10 KM/Hr	92.59 km
50	Blind Spot	Blind Spot	26.43306, 83.94337	10 KM/Hr	92.98 km
51	Turn	High	26.43121, 83.95434	15 KM/Hr	93.93 km
52	Turn	High	26.43010, 83.95431	15 KM/Hr	94.18 km
53	Turn	High	26.42979, 83.95804	15 KM/Hr	94.55 km
54	Turn	Medium	26.42999, 83.95829	30 KM/Hr	94.64 km
55	Turn	High	26.43028, 83.95838	15 KM/Hr	94.67 km
56	Turn	Medium	26.42738, 83.96707	30 KM/Hr	95.58 km
57	Turn	Medium	26.42699, 83.96847	30 KM/Hr	95.72 km
58	Turn	High	26.42707, 83.96867	15 KM/Hr	95.80 km
59	Turn	High	26.42564, 83.97285	15 KM/Hr	96.17 km
60	Turn	Medium	26.42447, 83.97272	30 KM/Hr	96.37 km
61	Turn	High	26.42369, 83.97320	15 KM/Hr	96.46 km
62	Blind Spot	Blind Spot	26.42291, 83.97278	10 KM/Hr	96.54 km
63	Turn	Medium	26.42863, 83.98549	30 KM/Hr	97.93 km
64	Turn	High	26.42550, 83.99316	15 KM/Hr	98.77 km
65	Turn	Medium	26.42460, 83.99287	30 KM/Hr	98.91 km
66	Blind Spot	Blind Spot	26.41606, 83.98948	10 KM/Hr	99.90 km
67	Turn	High	26.41443, 83.99358	15 KM/Hr	100.36 km
68	Turn	High	26.41452, 83.99368	15 KM/Hr	100.43 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
69	Turn	Medium	26.41430, 83.99474	30 KM/Hr	100.49 km
70	Turn	Medium	26.41411, 83.99491	30 KM/Hr	100.56 km
71	Turn	High	26.41395, 83.99569	15 KM/Hr	100.61 km
72	Turn	High	26.41320, 83.99562	15 KM/Hr	100.69 km
73	Turn	High	26.41237, 84.00051	15 KM/Hr	101.19 km
74	Blind Spot	Blind Spot	26.41077, 84.00004	10 KM/Hr	101.33 km
75	Blind Spot	Blind Spot	26.41051, 84.00276	10 KM/Hr	101.64 km

Emergency Locations

Crowded Spots

Found: 1 college(s), 1 marketplace(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	college	BRD PG college	26.5161416, 83.7720277	30 km/h	Medium	68.76 km
1	marketplace	Nai Bazar	26.5028741, 83.7852884	30 km/h	Medium	72.65 km

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: 33.23 km

Coordinates: 26.69741, 83.47552



Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Distance from Start: 33.39 km

Coordinates: 26.698439, 83.4747268



Google

© Google

Risk Type: Blind Spot**Risk Level:** Blind Spot**Speed Limit:** 10 KM/Hr**Distance from Start:** 33.39 km**Coordinates:** 26.69857, 83.47481

Google

© Google

Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 47.37 km**Coordinates:** 26.63752, 83.59723



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 47.43 km

Coordinates: 26.63761, 83.59795



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 70.29 km

Coordinates: 26.51335, 83.77639



Google

@ Google

Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 70.37 km**Coordinates:** 26.51260, 83.77721

Google

@ Google

Risk Type: Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 70.47 km**Coordinates:** 26.51258, 83.77806



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 70.71 km

Coordinates: 26.51385, 83.77994



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 71.42 km

Coordinates: 26.51211, 83.78687



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 71.55 km

Coordinates: 26.51305, 83.78707



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 71.65 km

Coordinates: 26.51288, 83.78804



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 71.71 km

Coordinates: 26.51267, 83.78810



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 72.42 km

Coordinates: 26.50673, 83.78564



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 72.54 km

Coordinates: 26.50561, 83.78700



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 72.62 km

Coordinates: 26.50548, 83.78702



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 72.65 km

Coordinates: 26.50516, 83.78678



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 74.14 km

Coordinates: 26.50066, 83.80042



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 78.51 km

Coordinates: 26.47172, 83.82778



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 79.03 km

Coordinates: 26.46778, 83.82835



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 96.46 km

Coordinates: 26.42369, 83.97320



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 96.54 km

Coordinates: 26.42291, 83.97278

Download Reports



[Download Excel Report](#)



[Download Interactive Map](#)