JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP to VIJAYSHREE INDANE GAS SEWA

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

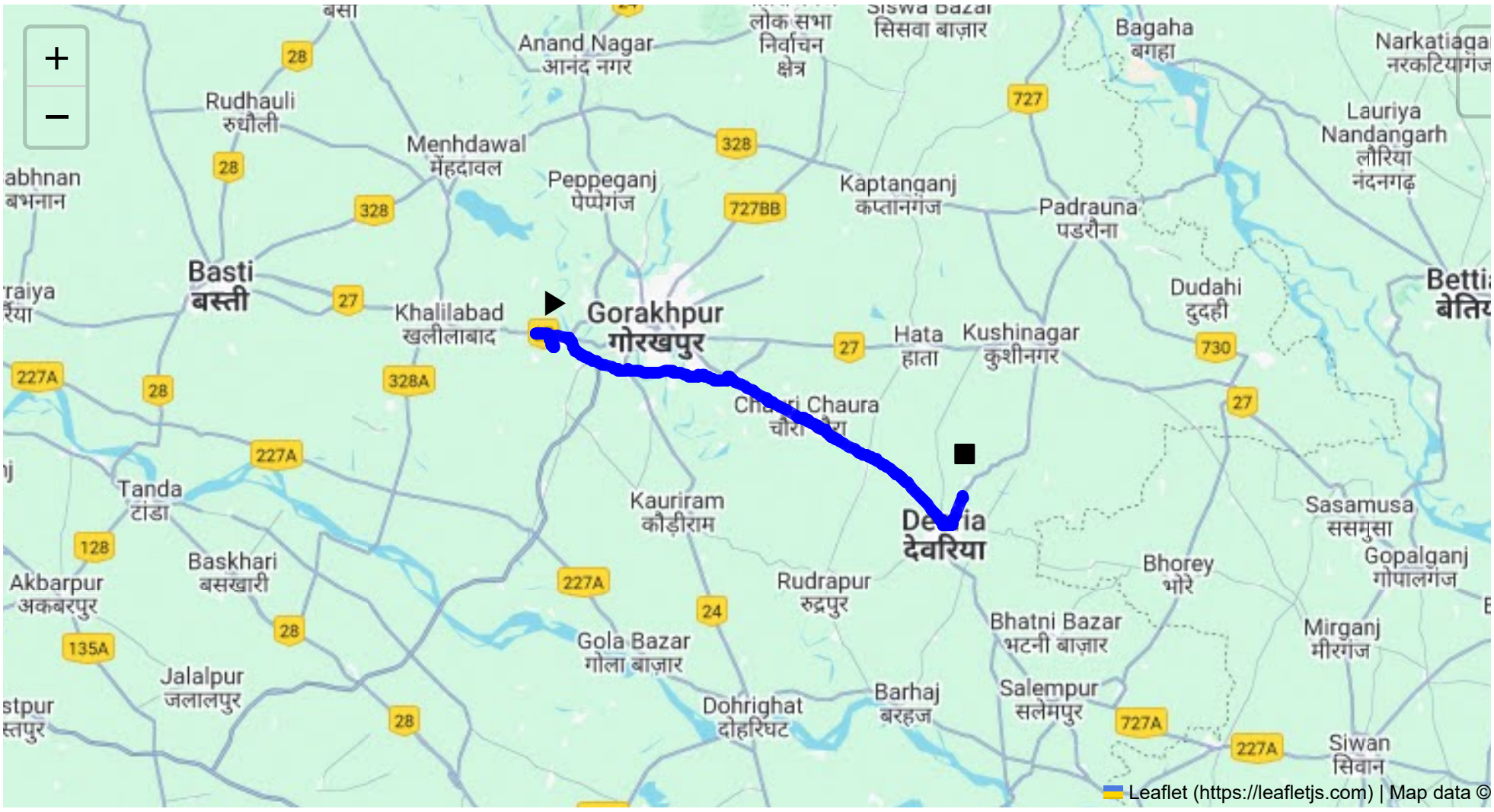
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 76.08 km
Estimated Duration: 1.7 hours
Adjusted Duration (Heavy Vehicle): 2.1 hours
Start: (26.735959, 83.229398)
End: (26.54778, 83.80396)

Welcome to the Journey Risk Management Study

1. Overview of the Route Map:

The route begins at GIDA Industrial Area Phase 1 in Sahjanwa, Uttar Pradesh, and travels northeast to Purshottmpur, Uttar Pradesh. The journey spans approximately 76.08 kilometers, passing through Somnath Mandir Rd, Kandoli via Kailashpuri, Deoria. This route predominantly consists of state highways and rural roads, which are generally two-lane roads.

2. Typical Weather Conditions and Potential Weather-Related Hazards:

The region experiences a humid subtropical climate with hot summers (March-June), a monsoon season (July-September), and a mild winter (November-February). Monsoons can bring heavy rains, causing waterlogging and slippery road surfaces, which could pose hazards for heavy vehicles. Fog is also common during winter, potentially reducing visibility.

3. Analysis of Traffic Patterns:

Traffic tends to be heavier during early morning (7-9 AM) and late afternoon (5-7 PM) as commuters travel to and from work. Congestion can typically be expected around urban centers like Sahjanwa and Deoria, especially near marketplaces and junctions.

4. Assessment of Road Quality and Infrastructure:

Generally, state highways in Uttar Pradesh are moderately maintained but can have potholes, especially post-monsoon. Road quality may degrade in rural stretches leading to Purshottmpur. Infrastructure such as signage may be inconsistent, and street lighting is often sparse outside urban areas.

5. Suggestions for Alternative Routes for Emergencies:

In case of emergencies, consider bypassing congested areas by taking state roads that connect to National Highway 27, providing a more direct and potentially faster route to Purshottmpur, especially during roadblocks or heavy congestion.

6. Summary of Local Regulations Affecting Hazardous Material Transport:

Local regulations may require permits for transporting hazardous materials. Restrictions often apply during peak traffic hours and in highly populated areas. Checkpoints are common, and documentation will be required for verification.

7. Overview of Historical Incidents:

There have been incidents involving heavy vehicles overturning, particularly during adverse weather conditions. Cases of hazardous material spills have been recorded, often attributed to poor road conditions and improper handling.

8. Environmental Considerations and Sensitive Areas:

The route passes through agricultural lands that are sensitive to contamination. Care must be taken to avoid leaks or spills, especially near water bodies. There are few protected environmental zones but adhere to guidelines when transporting through any eco-sensitive areas.

9. Analysis of Communication Coverage:

While major towns like Sahjanwa and Deoria have good network coverage, rural areas may have spotty mobile and data services. Important to plan for communication outages, especially during emergencies.

10. Estimated Emergency Response Times:

Urban areas like Sahjanwa and Deoria have quicker emergency response times, typically within 20-30 minutes. In contrast, rural areas and stretches beyond Kailashpuri could expect delays up to an hour due to distance and road conditions.

11. Overall Summary of Risk Assessment:

The primary risks involve weather-related hazards, particularly during monsoon seasons, and road quality issues leading to accidents or delays. Adhering to local regulations and maintaining clear communication protocols are critical. Emergency response times vary significantly, necessitating adequate training and preparedness. Environmental sensitivity and historical incidents suggest careful handling and adherence to all safety measures.

For optimal safety, stay updated on current weather conditions, avoid peak hours if possible, and plan alternative routes when necessary. Ensure all vehicle and cargo documentation is current and accessible to prevent delays at checkpoints.

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	1.16 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	26.74648, 83.25152	30 KM/Hr	9.06 km
14	Turn	High	26.69632, 83.47492	15 KM/Hr	33.13 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
15	Turn	High	26.69639, 83.47492	15 KM/Hr	33.16 km
16	Blind Spot	Blind Spot	26.69844, 83.47473	10 KM/Hr	33.43 km
1	U-Turn	High	26.698439, 83.4747268	10 KM/Hr	33.43 km
17	Turn	High	26.69857, 83.47481	15 KM/Hr	33.44 km
18	Turn	Medium	26.63752, 83.59723	30 KM/Hr	47.42 km
19	Turn	Medium	26.51686, 83.77439	30 KM/Hr	69.92 km
20	Turn	Medium	26.51352, 83.77629	30 KM/Hr	70.33 km
21	Turn	Medium	26.51258, 83.77806	30 KM/Hr	70.55 km
22	Turn	Medium	26.51369, 83.78028	30 KM/Hr	70.83 km
23	Turn	Medium	26.51335, 83.78045	30 KM/Hr	70.89 km
24	Turn	High	26.51206, 83.78684	15 KM/Hr	71.55 km
25	Turn	Medium	26.51306, 83.78708	30 KM/Hr	71.67 km
26	Turn	High	26.51314, 83.78716	15 KM/Hr	71.68 km
27	Turn	High	26.51285, 83.78817	15 KM/Hr	71.75 km
28	Blind Spot	Blind Spot	26.54800, 83.80342	10 KM/Hr	75.93 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: 9.06 km

Coordinates: 26.74648, 83.25152

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: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 33.43 km

Coordinates: 26.69844, 83.47473

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: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 33.44 km

Coordinates: 26.69857, 83.47481

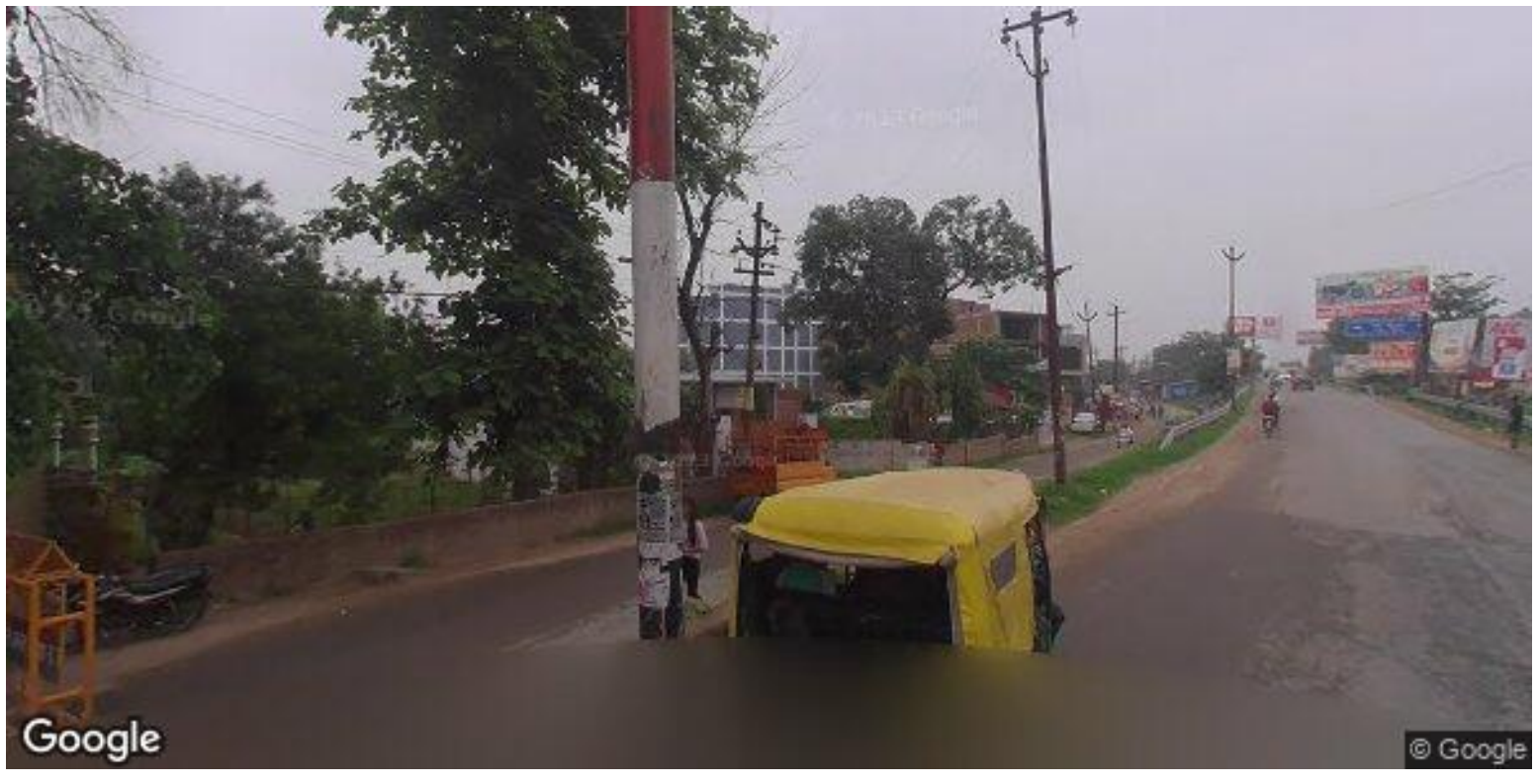
Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 47.42 km

Coordinates: 26.63752, 83.59723



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 69.92 km

Coordinates: 26.51686, 83.77439

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 70.33 km

Coordinates: 26.51352, 83.77629

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 70.55 km

Coordinates: 26.51258, 83.77806

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 70.83 km

Coordinates: 26.51369, 83.78028

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 70.89 km

Coordinates: 26.51335, 83.78045

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 71.55 km

Coordinates: 26.51206, 83.78684

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 71.67 km

Coordinates: 26.51306, 83.78708

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 71.68 km

Coordinates: 26.51314, 83.78716

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 71.75 km

Coordinates: 26.51285, 83.78817

Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 75.93 km

Coordinates: 26.54800, 83.80342

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