



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP to KALPANA INDANE 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

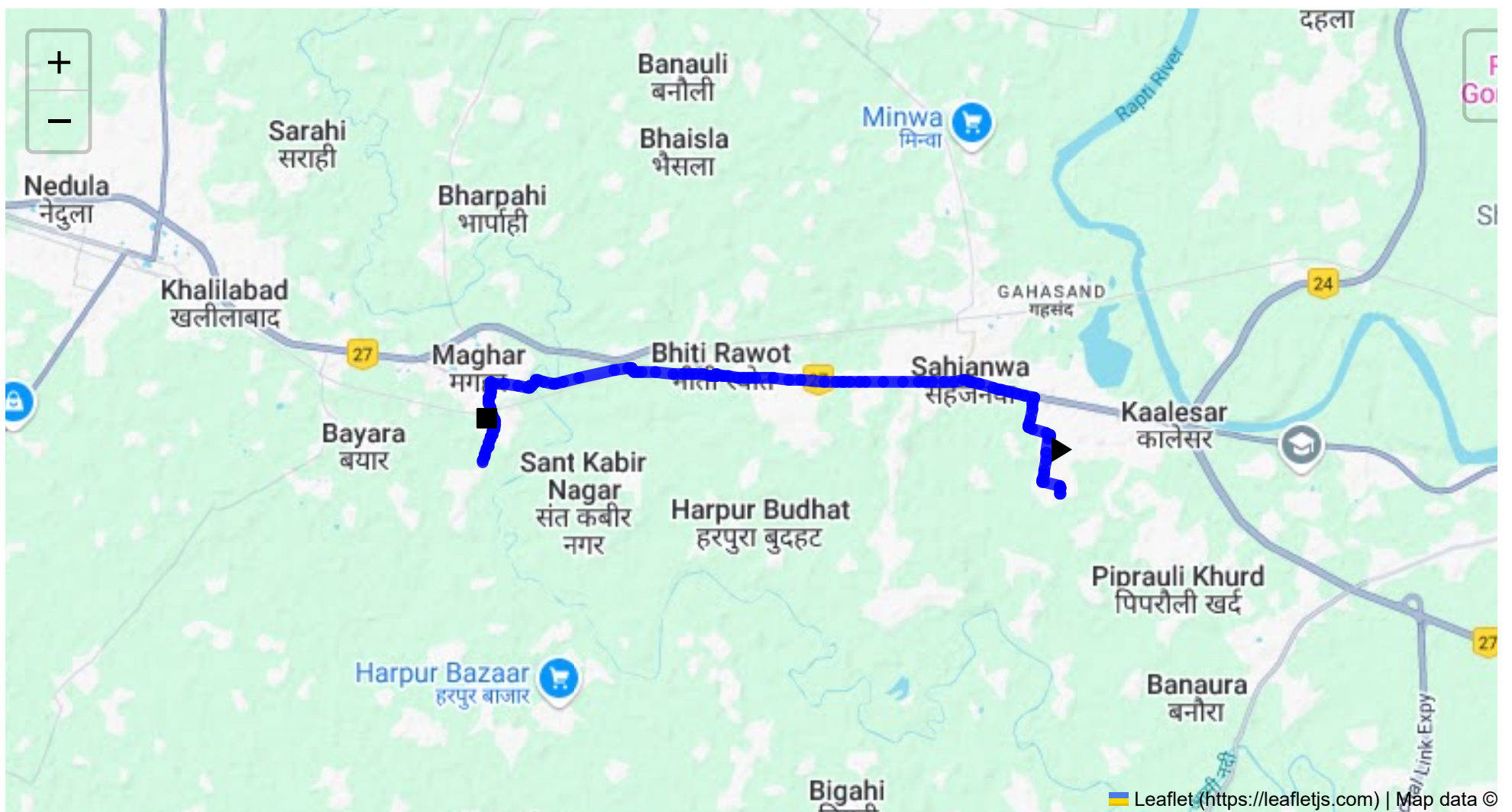
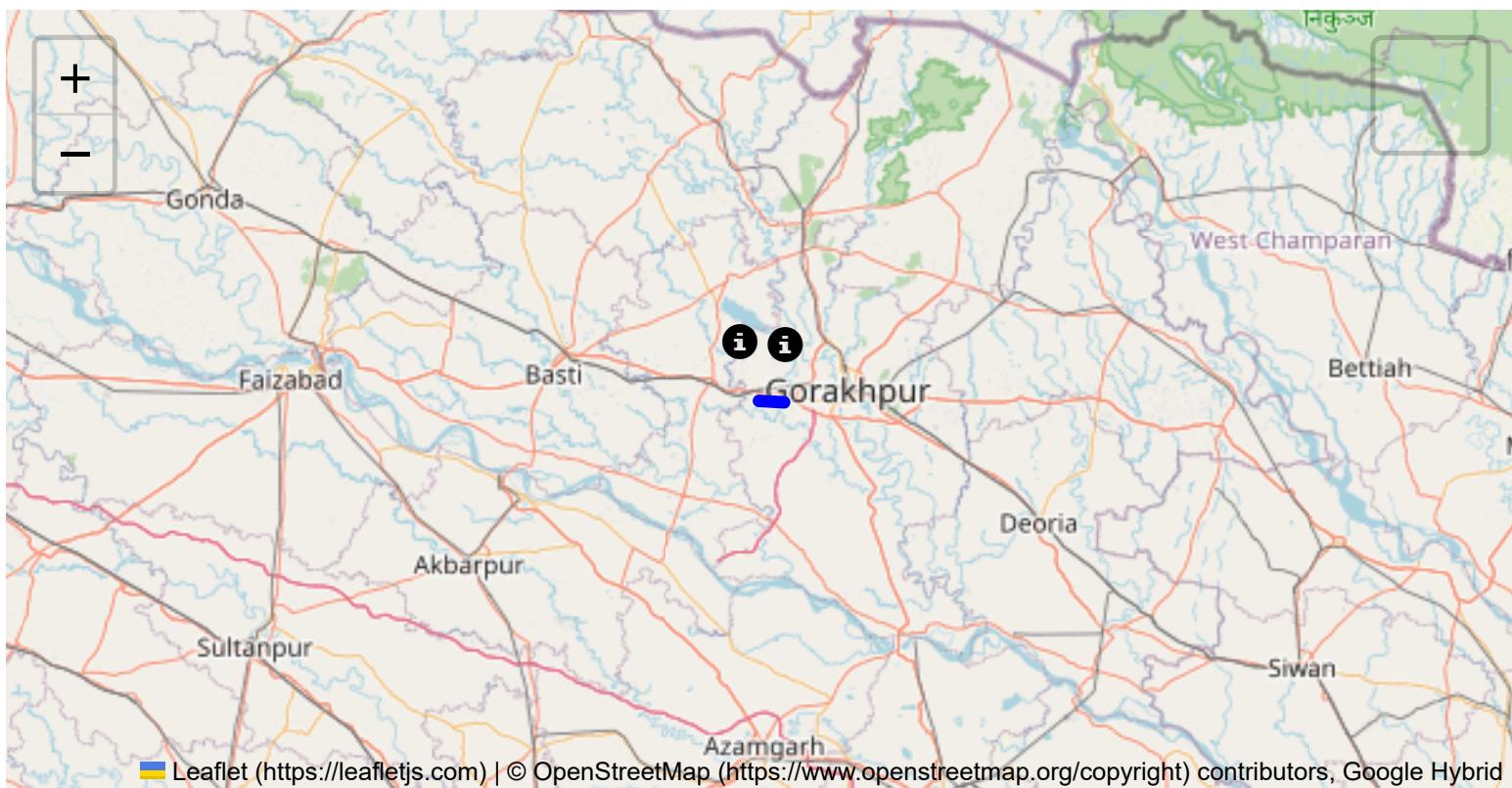
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 13.25 km
Estimated Duration: 0.4 hours
Adjusted Duration (Heavy Vehicle): 0.5 hours
Start: (26.735959, 83.229398)
End: (26.74099, 83.12878)

Welcome to the Journey Risk Management Study

Analyzing the route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, Uttar Pradesh, to P4RH+FFF, Mohiuddinpur, Uttar Pradesh, here's a comprehensive assessment of potential hazards:

1. Overview of the Route Map:

- The route spans approximately 13.25 kilometers, mostly through semi-urban areas. It is essential for vehicles to navigate through local roads and some stretches of highways.

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

- The region experiences a tropical climate. Summers (April-June) can be extremely hot, while the monsoon season (July-September) brings heavy rains, potentially causing flooding and reduced visibility. Winters (December-February) are typically mild but can have foggy conditions, particularly in the mornings, leading to poor visibility.

3. Analysis of Traffic Patterns:

- Traffic congestion is more likely during peak hours (morning: 8:00-10:00 AM, evening: 5:00-8:00 PM). Areas near marketplaces and major junctions are prone to congestion, with Sahjanwa town center being a notable bottleneck.

4. Assessment of Road Quality and Infrastructure:

- Roads are generally tarred but can be uneven, with potholes common, especially during the monsoon season. Some stretches might lack proper signage, which can be a challenge for navigation.

5. Suggestions for Alternative Routes for Emergencies:

- If the main route is obstructed, consider taking NH27, which runs parallel but may require covering a longer distance. Ensure to have a detailed map or GPS for navigating detours through local roads.

6. Summary of Local Regulations Affecting Hazardous Material Transport:

- Certain materials may have transportation restrictions during night hours. Compliance with local hazardous material transport regulations, including permits and labeling, is mandatory.

7. Overview of Historical Incidents:

- There have been occasional reports of accidents involving heavy vehicles in the region, often attributed to road conditions and reduced visibility. No significant incidents specifically related to hazardous materials have been documented recently.

8. Environmental Considerations and Sensitive Areas:

- The route crosses agricultural lands and small water bodies. It is crucial to maintain a minimum environmental footprint by avoiding spillage and adhering to designated routes to prevent any contamination of these areas.

9. Analysis of Communication Coverage:

- Mobile network coverage is generally reliable, though some rural areas might experience spotty service. GPS functionality could be intermittently affected.

10. Estimated Emergency Response Times:

- Emergency response times vary, typically ranging from 20 to 40 minutes, depending on proximity to major towns. Sahjanwa has relatively quicker response capabilities due to better infrastructure.

11. Overall Summary of Risk Assessment:

- The route presents moderate risk primarily due to variable road conditions and weather-related visibility challenges. Awareness of local traffic patterns, adherence to safety regulations, and

maintaining communication channels is crucial in minimizing risks during transport. Regular vehicle maintenance checks should also be conducted to prevent breakdowns or accidents.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
0	Turn	High	26.73690, 83.22947	15 KM/Hr	0.07 km
1	Turn	High	26.73697, 83.22939	15 KM/Hr	0.11 km
2	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km
3	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.48 km
4	Turn	Medium	26.74524, 83.22746	30 KM/Hr	1.30 km
5	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.32 km
6	Turn	Medium	26.74654, 83.22390	30 KM/Hr	1.69 km
7	Turn	Medium	26.74661, 83.22388	30 KM/Hr	1.70 km
8	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
9	Turn	High	26.75469, 83.16936	15 KM/Hr	7.73 km
10	Turn	Medium	26.75464, 83.16931	30 KM/Hr	7.77 km
11	Turn	Medium	26.75534, 83.15451	30 KM/Hr	9.24 km
12	Turn	Medium	26.75563, 83.15436	30 KM/Hr	9.28 km
13	Turn	Medium	26.75386, 83.13806	30 KM/Hr	10.90 km
14	Turn	Medium	26.75277, 83.13646	30 KM/Hr	11.15 km
15	Blind Spot	Blind Spot	26.75347, 83.12984	10 KM/Hr	11.78 km
16	Turn	Medium	26.75299, 83.12993	30 KM/Hr	11.85 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: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 7.73 km

Coordinates: 26.75469, 83.16936



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 7.77 km

Coordinates: 26.75464, 83.16931



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 9.28 km

Coordinates: 26.75563, 83.15436



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 10.90 km

Coordinates: 26.75386, 83.13806



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 11.15 km

Coordinates: 26.75277, 83.13646



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 11.78 km

Coordinates: 26.75347, 83.12984

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