



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP to GOLDEN 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

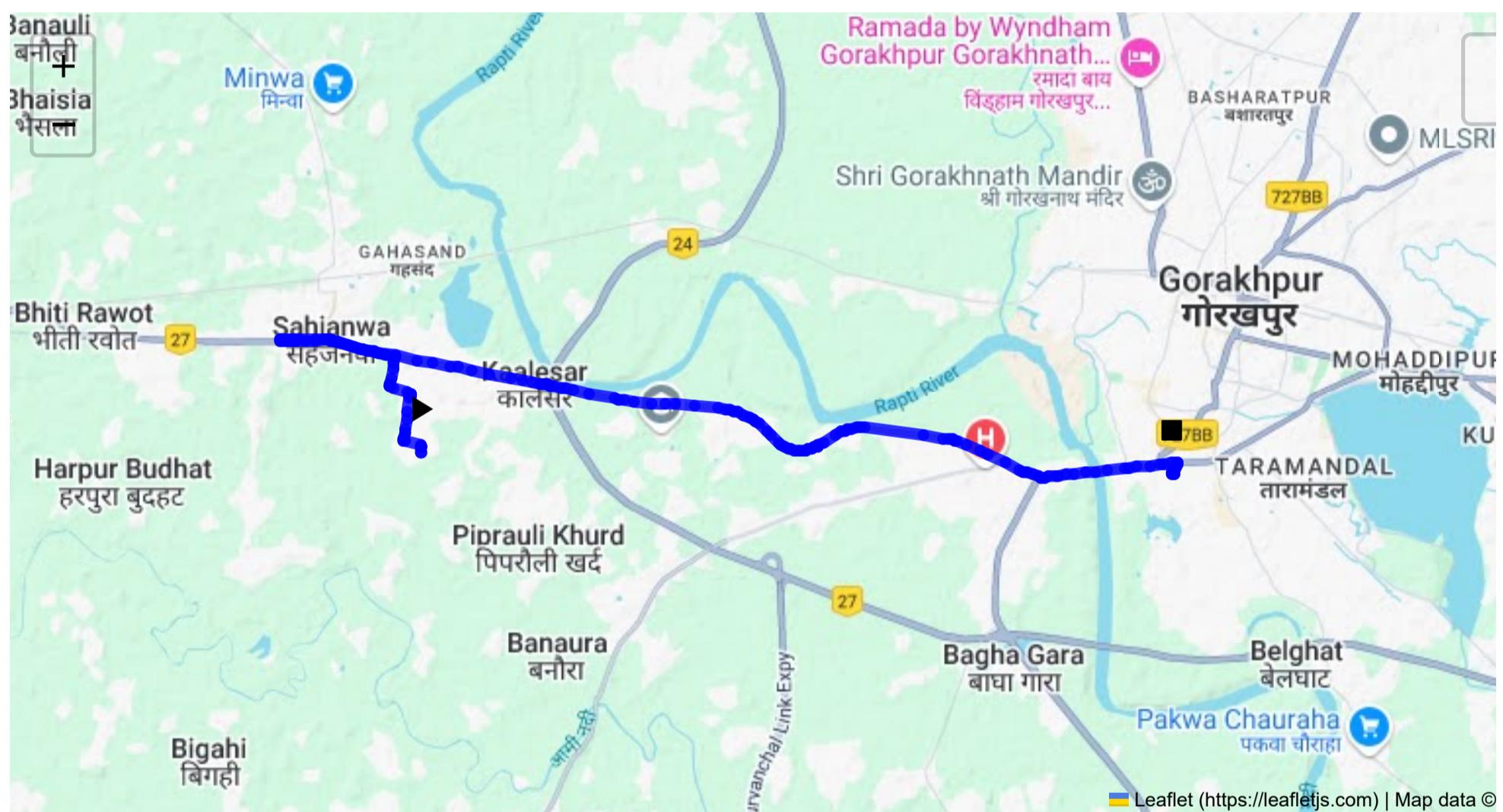
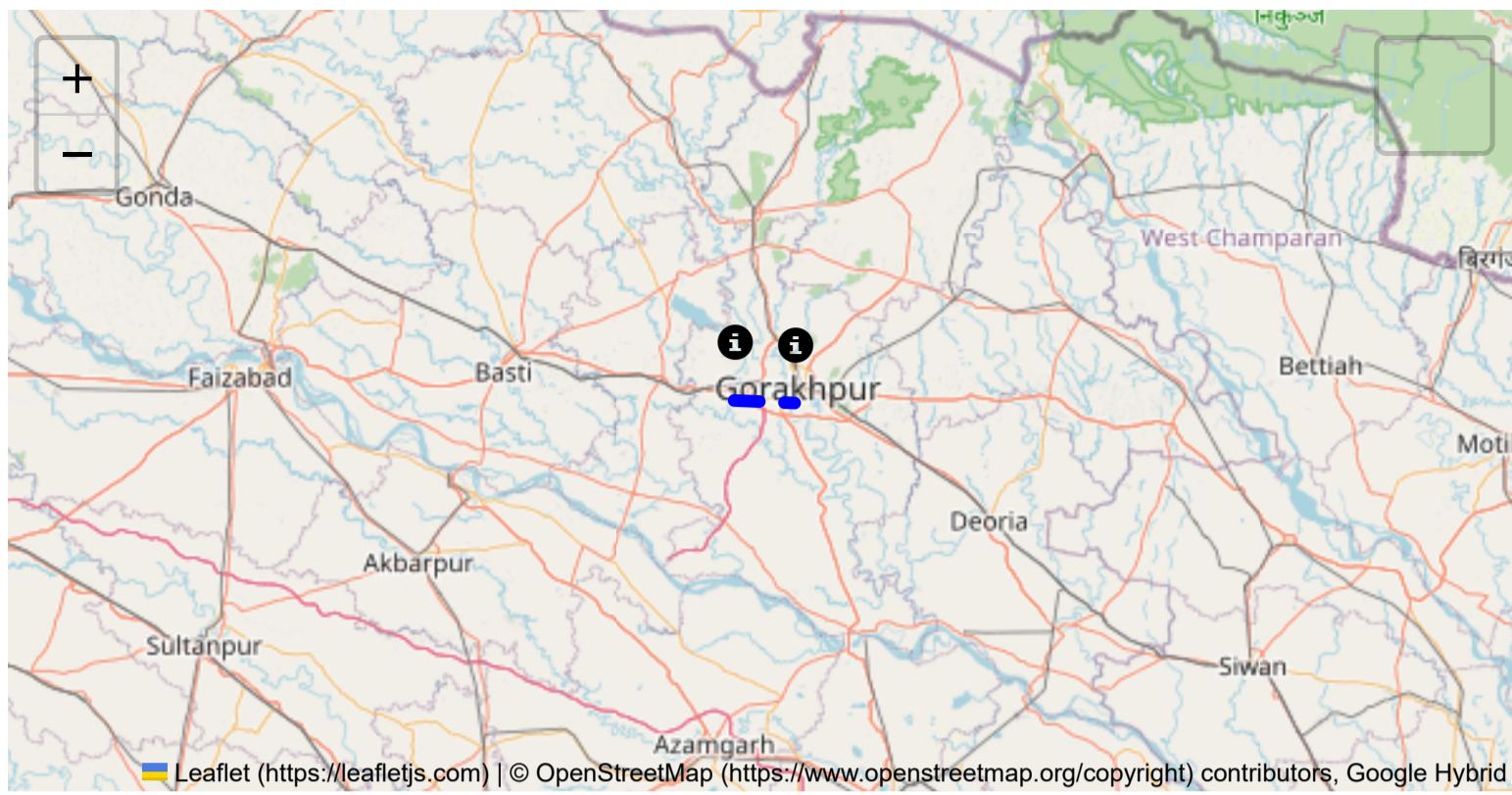
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 20.82 km
Estimated Duration: 0.6 hours
Adjusted Duration (Heavy Vehicle): 0.7 hours
Start: (26.735959, 83.229398)
End: (26.73266, 83.3609)

Welcome to the Journey Risk Management Study

Certainly, analyzing a route for safety, especially for heavy vehicles carrying hazardous materials, involves considering numerous factors. Below is a detailed analysis of the route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, Uttar Pradesh, to C729, Transport Nagar, Gorakhpur, Uttar Pradesh.

1. Overview of the Route Map

The route spans approximately 20.82 kilometers, starting from the GIDA Industrial Area Phase 1 in Sahjanwa. It proceeds along primarily urban and semi-urban roads leading to Transport Nagar in Gorakhpur. The roads are a mix of state highways and local roads, which may include intersections with moderate to heavy traffic especially closer to Gorakhpur.

2. Typical Weather Conditions and Potential Weather-Related Hazards

- **Weather:** The region experiences three main seasons—summer, monsoon, and winter. Summers can be hot and dry (March-June), while the monsoon season (June-September) brings heavy rains, potentially causing waterlogging and deteriorating road conditions. Winters (December-February) are relatively mild but occasionally foggy.
- **Hazards:** During the monsoon, waterlogging and reduced visibility due to heavy rain are major concerns. Winter fog can significantly lower visibility.

3. Traffic Patterns

- **Peak Hours:** Typically, morning (8:00-10:00 AM) and evening (6:00-8:00 PM) times experience the highest traffic.
- **Congestion-Prone Areas:** Approaching Gorakhpur, particularly near busy marketplaces and intersections, traffic congestion is common.

4. Assessment of Road Quality and Infrastructure

- **Road Quality:** Varies throughout; some sections may have potholes and uneven surfaces, especially after the monsoon.
- **Infrastructure:** There are limited bypasses for heavy vehicles, necessitating travel through congested urban areas.

5. Alternative Routes for Emergencies

- If the main route is inaccessible, consider circumnavigating Gorakhpur by using the NH27. Although longer, it might provide a smoother transit through less congested areas during peak or adverse conditions.

6. Summary of Local Regulations Affecting Hazardous Material Transport

- Local regulations require permits for transport of hazardous materials. It is essential to adhere to designated times for such transport to avoid peak traffic.

7. Overview of Historical Incidents

- There have been occasional incidents involving heavy vehicles, mainly due to road surface conditions and congestion. No significant history of hazardous material spills, but vigilance is advised.

8. Environmental Considerations and Sensitive Areas

- Passing through populated areas means that emission control and noise pollution are key concerns. Certain urban stretches require adherence to speed limits and restrictions on honking.

9. Communication Coverage

- Generally good along the route, though intermittent signal drops may occur in less populated areas or around industrial zones.

10. Estimated Emergency Response Times

- Sahjanwa Region:** ~30-40 minutes
- Approaching Gorakhpur:** ~15-20 minutes, faster due to proximity to urban emergency services.

11. Overall Summary of Risk Assessment

This route poses moderate risks due to urban congestion and variable road conditions. Weather can substantially influence travel safety, particularly during monsoon and foggy winters. Regulatory compliance and careful planning of travel times can mitigate many of the identified risks. Emergency services are more accessible closer to Gorakhpur, making strategic planning crucial for hazardous materials transport.

In conclusion, while the route is relatively manageable, conditions can alter quickly. A proactive approach to route planning, stringent adherence to safety regulations, and contingency planning for emergency scenarios are highly recommended.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73690, 83.22947	15 KM/Hr	0.07 km
2	Turn	High	26.73697, 83.22939	15 KM/Hr	0.11 km
3	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km
4	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.48 km
5	Turn	Medium	26.74524, 83.22746	30 KM/Hr	1.30 km
6	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.32 km
7	Turn	Medium	26.74654, 83.22390	30 KM/Hr	1.69 km
8	Turn	Medium	26.74661, 83.22388	30 KM/Hr	1.70 km
9	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
10	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
11	Turn	High	26.75381, 83.20466	15 KM/Hr	4.30 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.97 km
12	Blind Spot	Blind Spot	26.73455, 83.36218	10 KM/Hr	20.51 km
13	Turn	High	26.73285, 83.36154	15 KM/Hr	20.74 km
14	Turn	High	26.73290, 83.36118	15 KM/Hr	20.77 km

Emergency Locations

Found: 4 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Sanjay Fracture Clinic and Maternity Centre	26.7342168, 83.3665873	30 km/h	Medium	20.51 km
1	hospital	The Pride Hospital	26.734908, 83.3669987	30 km/h	Medium	20.51 km
2	hospital	Sangam Eye Hospital	26.7343271, 83.3640482	30 km/h	Medium	20.51 km
3	hospital	Amrawati Hospital	26.7372636, 83.3626921	30 km/h	Medium	20.51 km

Crowded Spots

Route Photos of Risky Spots



Google

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Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.17 km

Coordinates: 26.75126, 83.22476



Google

© Google

Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 4.23 km

Coordinates: 26.75353, 83.20457



Google

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Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 4.30 km

Coordinates: 26.75381, 83.20466



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Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 8.97 km

Coordinates: 26.74681, 83.25111



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 20.51 km

Coordinates: 26.73455, 83.36218



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 20.74 km

Coordinates: 26.73285, 83.36154



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Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 20.77 km

Coordinates: 26.73290, 83.36118

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