



JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO AANAGH INDANE

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

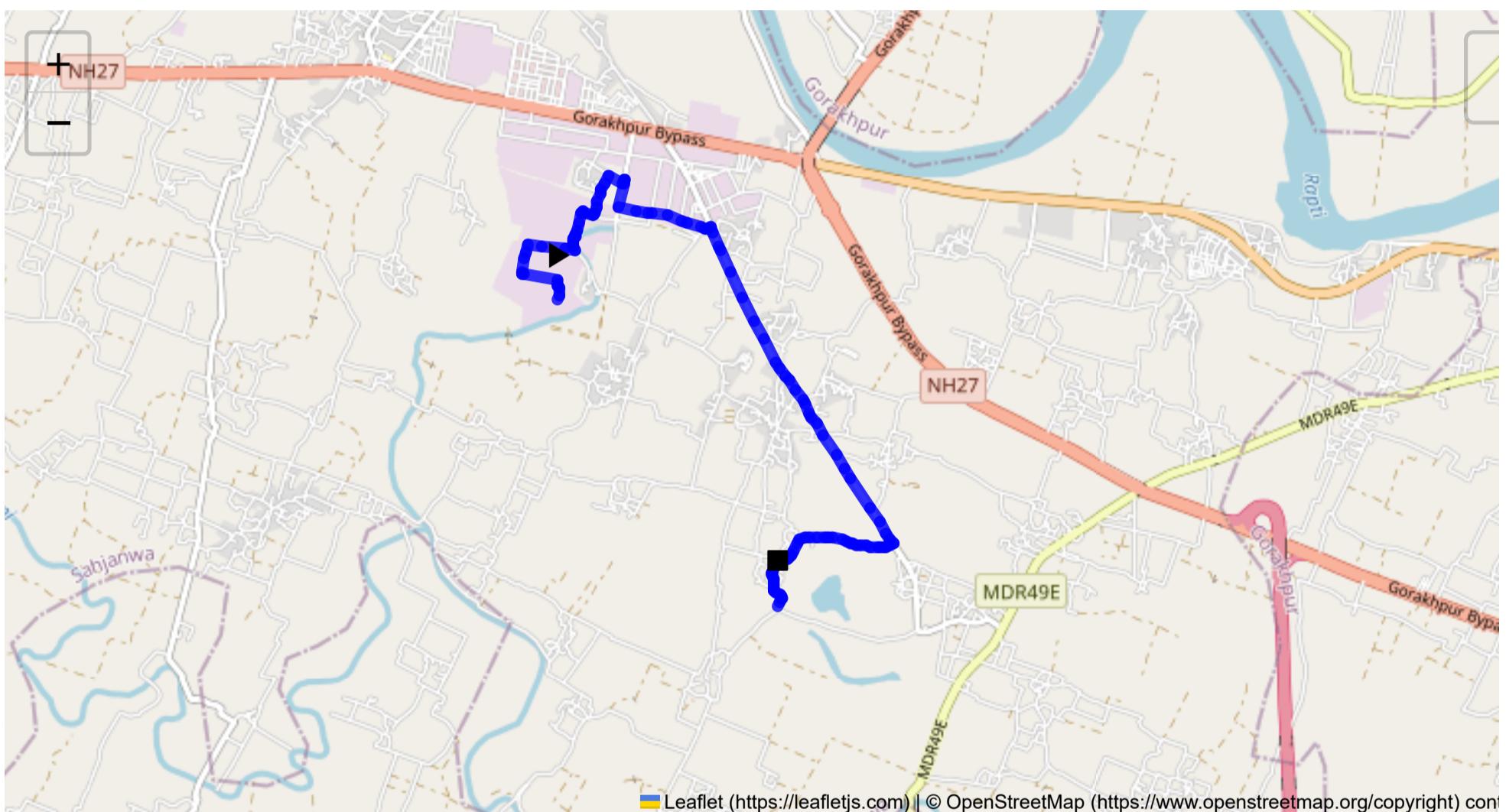
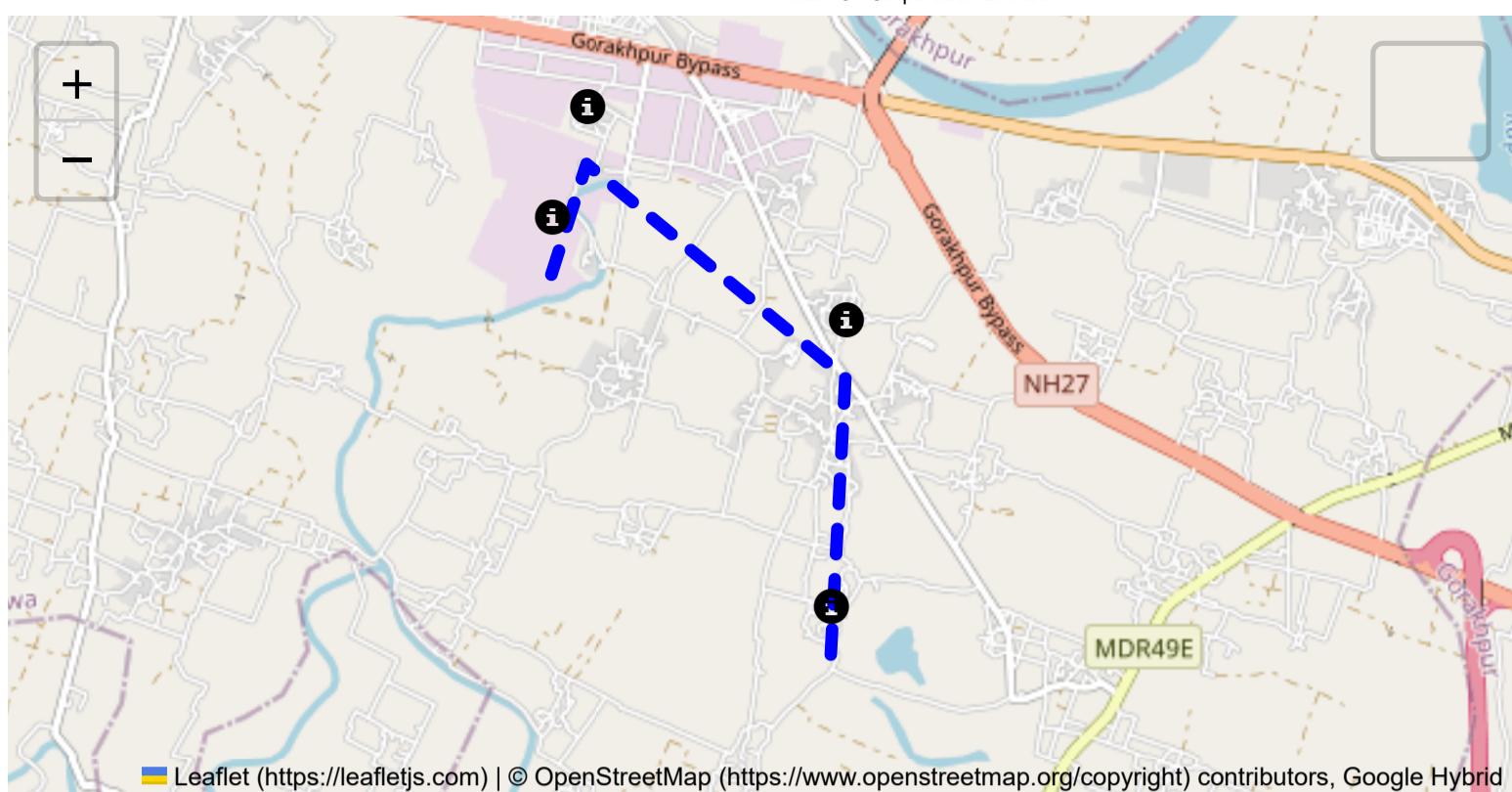
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 7.96 km
Estimated Duration: 0.3 hours
Adjusted Duration (Heavy Vehicle): 0.4 hours
Start: (26.735959, 83.229398)
End: (26.712123, 83.248304)

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route from GIDA Industrial Area Phase 1, Sahjanwa to Amtaura via Piprayli Bujurg spans approximately 7.96 kilometers. The journey transitions from industrial zones into more rural landscapes, typically taking 20 minutes under normal traffic conditions for heavy vehicles carrying hazardous materials.

2. Typical Weather Conditions and Potential Hazards

The region experiences a subtropical climate, with hot summers, a monsoon season, and mild winters. Monsoons (June to September) can lead to severe rain, causing flooding and reduced road visibility — a notable hazard for truck drivers. Winter (December to February) may incur fog, affecting early morning visibility.

3. Traffic Patterns

Traffic congestion is typically not severe due to the industrial and rural character of the area, but can increase during shift changes in industrial zones. Peak hours are generally aligned with morning (8 AM-10 AM) and late afternoon (4 PM-6 PM). The areas near GIDA Industrial Area and Piprayli Bujurg might see heavier activity during these times.

4. Assessment of Road Quality and Infrastructure

The primary roads in the industrial area are paved but can suffer from wear, creating potholes that are especially problematic following heavy rains. Rural segments might feature narrower lanes and less frequent road signs or lighting, which can impact driving at night or during adverse weather.

5. Suggestions for Alternative Routes

In case of road blockages or emergencies, drivers can consider taking NH27 for bypassing major points of congestion or using nearby local routes, ensuring they are aware of potential state and national highways for longer diversions.

6. Local Regulations on Hazardous Material Transport

Indian regulations necessitate adherence to the Central Motor Vehicles Rules, which includes carrying Material Safety Data Sheets for all hazardous cargo, ensuring vehicles are marked accordingly, and having emergency contact information visible.

7. Historical Incidents

This area has a relatively low incidence rate of accidents involving heavy vehicles, but vigilance is necessary at intersections and during periods of inclement weather where accidents have previously occurred.

8. Environmental Considerations and Sensitive Areas

Given the proximity to rural and semi-urban areas, loading and unloading within these zones could impact local agriculture. Take caution to prevent spills or leaks, and ensure noise and emissions are minimized.

9. Communication Coverage

The route generally falls under adequate mobile network coverage, but rural zones may have occasional connectivity issues. It is advisable for drivers to ensure all communications equipment is functioning and consider offline maps for navigation.

10. Estimated Emergency Response Times

Emergency response times can vary from 20 to 45 minutes, depending on proximity to Sahjanwa's town center and the availability of local responders. Remote segments might see slower response due to distance from major service centers.

12. Overall Summary of Risk Assessment

The route poses moderate risks primarily during inclement weather and busy industrial timings. Key challenges include road quality fluctuation, potential weather conditions, and specific regulatory compliance for hazardous materials. Regular maintenance checks, driver awareness, and route adjustments or emergency drills can mitigate these.

Overall, while the route is manageable, constant vigilance, preparation for adverse circumstances, and adherence to legal and safety guidelines will optimize safety for truck drivers transporting hazardous materials.

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	High	26.74025, 83.22668	15 KM/Hr	0.72 km
5	Blind Spot	Blind Spot	26.73980, 83.23089	10 KM/Hr	1.12 km
6	Turn	Medium	26.74090, 83.23093	30 KM/Hr	1.29 km
7	Turn	Medium	26.74277, 83.23149	30 KM/Hr	1.51 km
8	Turn	High	26.74256, 83.23240	15 KM/Hr	1.58 km
9	Turn	Medium	26.74260, 83.23246	30 KM/Hr	1.62 km
10	Turn	High	26.74568, 83.23388	15 KM/Hr	1.95 km
11	Blind Spot	Blind Spot	26.74505, 83.23505	10 KM/Hr	2.06 km
12	Turn	High	26.74527, 83.23510	15 KM/Hr	2.14 km
13	Blind Spot	Blind Spot	26.74526, 83.23517	10 KM/Hr	2.16 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
14	Blind Spot	Blind Spot	26.74318, 83.23473	10 KM/Hr	2.29 km
15	Turn	Medium	26.74147, 83.24217	30 KM/Hr	3.15 km
16	Blind Spot	Blind Spot	26.74168, 83.24266	10 KM/Hr	3.20 km
17	Blind Spot	Blind Spot	26.71694, 83.25861	10 KM/Hr	6.37 km
18	Turn	Medium	26.71714, 83.25465	30 KM/Hr	6.80 km
19	Turn	High	26.71729, 83.25053	15 KM/Hr	7.20 km
20	Turn	Medium	26.71532, 83.24864	30 KM/Hr	7.51 km
21	Turn	Medium	26.71525, 83.24840	30 KM/Hr	7.54 km
22	Turn	Medium	26.71333, 83.24819	30 KM/Hr	7.76 km

Route Photos of Risky Spots

No relevant street view images available for the identified risky spots.

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