



## **JOURNEY RISK MANAGEMENT (JRM) STUDY**

### **Gorakhpur LPG BP TO SABIHA INDANE GRAMIN**

#### **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**

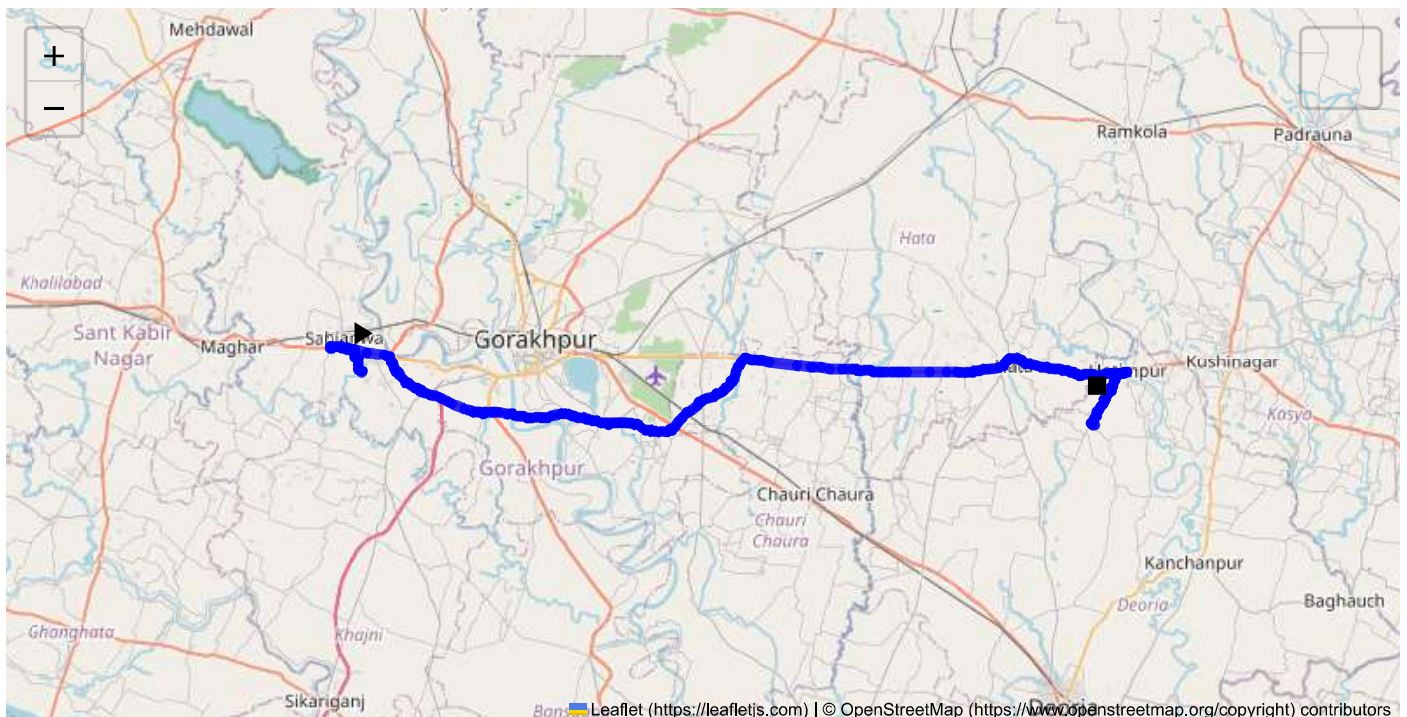
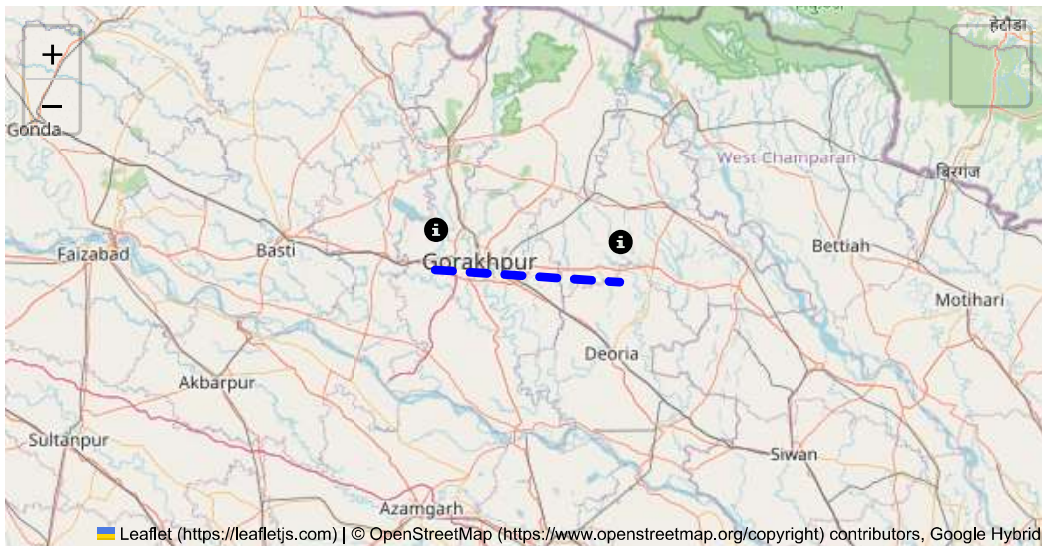
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 77.17 km

Estimated Duration: 1.6 hours

Adjusted Duration (Heavy Vehicle): 2.0 hours

Start: (26.735959, 83.229398)

End: (26.699136, 83.807355)

## Welcome to the Journey Risk Management Study

**1. Overview of the Route Map:** The route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, to MRX5+M2R, Deoria, spans approximately 77.17 kilometers. Typically, this journey involves traveling eastwards through a combination of national and state highways. The primary route might involve NH27, which is known for facilitating traffic between these regions.

**2. Typical Weather Conditions and Potential Weather-Related Hazards:** The region experiences a humid subtropical climate. Summers (March to June) can be extremely hot, while the monsoon season (July to September) might lead to heavy rainfall, potentially causing flooding and reduced visibility. Fog can be a significant hazard in winters (December to January), especially in the early morning or late at night, affecting driving conditions.

**3. Analysis of Traffic Patterns:** Traffic is generally heavier during weekday mornings (7:00 - 9:00 AM) and evenings (5:00 - 7:00 PM) due to local commuting patterns. The transition through urban areas, particularly near Gorakhpur, could present congestion, especially around market areas and major junctions. NH27 is typically busy but designed to handle heavy vehicles.

**4. Assessment of Road Quality and Infrastructure:** NH27 is a major highway, relatively well-maintained and suitable for heavy vehicles. However, state highways or local roads might have varied conditions, with occasional potholes and narrower lanes. Road construction or maintenance work can occasionally cause delays.

**5. Suggestions for Alternative Routes for Emergencies:** In case of emergencies or significant blockages, alternative routes could involve local SH routes via smaller towns. These alternatives might require additional updates on current road conditions or closures from local traffic authorities.

**6. Summary of Local Regulations Affecting Hazardous Material Transport:** Transportation of hazardous materials is regulated and might require special permits. Checkpoints are likely, and trucks must adhere to designated routes. Ensure compliance with local hazardous material transportation permits and safety standards.

**7. Overview of Historical Incidents:** Historically, this region has seen incidents involving heavy vehicles, particularly during adverse weather or road conditions. Accidents related to fog and slippery roads during monsoon are notable.

**8. Environmental Considerations and Sensitive Areas:** There are agricultural regions along this route, and environmentally sensitive areas include water bodies and small wildlife crossings. Awareness about regions that require reduced speed or noise is necessary to minimize environmental disturbances.

**9. Analysis of Communication Coverage:** Most of the route maintains fairly good cellular coverage with sporadic dead zones, particularly in remote rural stretches. These could impact the ability to communicate effectively during emergencies.

**10. Estimated Emergency Response Times:** Response times may vary; urban areas near Gorakhpur have quicker emergency services due to better infrastructure. Rural areas might experience slower response times, possibly exceeding 30-45 minutes depending on proximity to emergency services.

**11. Overall Summary of Risk Assessment:** The route generally supports heavy vehicle transport with proper infrastructure. Risks include weather-related hazards, potential traffic congestion, and the need for compliance with hazardous material regulations. Good route planning and real-time monitoring of traffic and weather can mitigate many risks. Ensure adequate preparation for potential communication challenges and emergency situations. Following local law enforcement guidance and maintaining updated route information is advised for safe transit.

## Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73690, 83.22947	15 KM/Hr	0.05 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	1.16 km
6	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.31 km
7	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
8	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
9	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
10	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
11	Turn	Medium	26.74656, 83.25154	30 KM/Hr	9.04 km
12	Turn	Medium	26.74648, 83.25152	30 KM/Hr	9.06 km
13	Turn	Medium	26.74526, 83.53161	30 KM/Hr	41.17 km
14	Turn	Medium	26.73552, 83.83132	30 KM/Hr	71.48 km
15	Turn	Medium	26.73565, 83.83141	30 KM/Hr	71.57 km
16	Turn	High	26.73622, 83.83252	15 KM/Hr	71.70 km
17	Turn	High	26.73584, 83.83288	15 KM/Hr	71.75 km
18	Turn	Medium	26.73565, 83.83262	30 KM/Hr	71.78 km
19	Turn	High	26.73481, 83.82589	15 KM/Hr	72.43 km
20	Blind Spot	Blind Spot	26.69976, 83.80509	10 KM/Hr	76.87 km

## Emergency Locations

Found: 1 hospital(s)



	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	RG Hospital	26.7372178, 83.5824469	30 km/h	Medium	45.85 km

## Crowded Spots

## 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: Medium**

**Speed Limit: 30 KM/Hr**

**Distance from Start: 41.17 km**

**Coordinates: 26.74526, 83.53161**



**Risk Type: Turn**

**Risk Level: Medium**

**Speed Limit: 30 KM/Hr**

**Distance from Start: 71.48 km**

**Coordinates: 26.73552, 83.83132**



**Risk Type: Turn**

**Risk Level: Medium**

**Speed Limit: 30 KM/Hr**

**Distance from Start: 71.57 km**

**Coordinates: 26.73565, 83.83141**



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 71.70 km

**Coordinates:** 26.73622, 83.83252



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 71.75 km

**Coordinates:** 26.73584, 83.83288





**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 71.78 km

**Coordinates:** 26.73565, 83.83262



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 72.43 km

**Coordinates:** 26.73481, 83.82589





**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Distance from Start:** 76.87 km

**Coordinates:** 26.69976, 83.80509

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