



# IndianOil

## JOURNEY RISK MANAGEMENT (JRM) STUDY

### Gorakhpur LPG BP TO KANHA 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

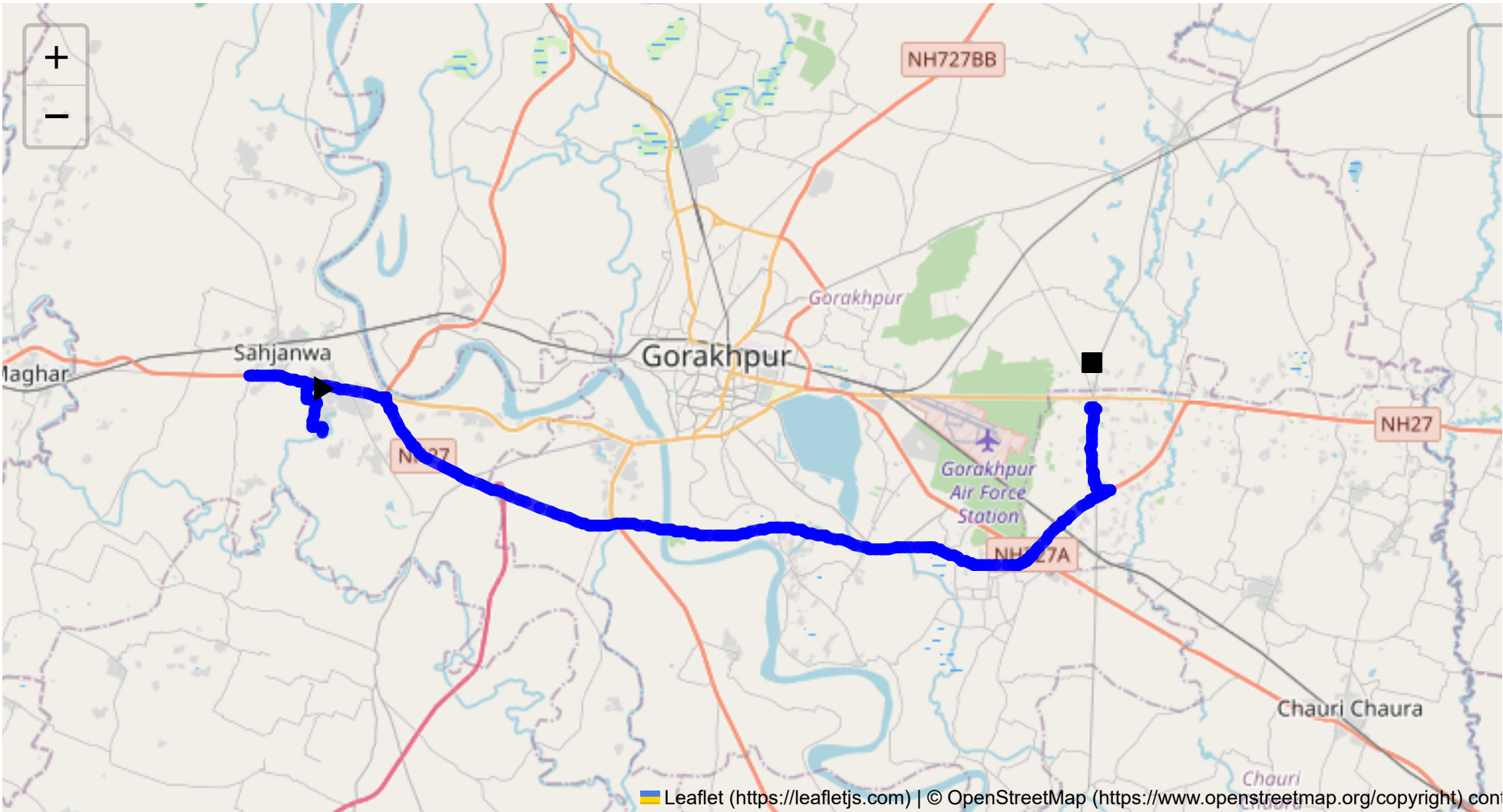
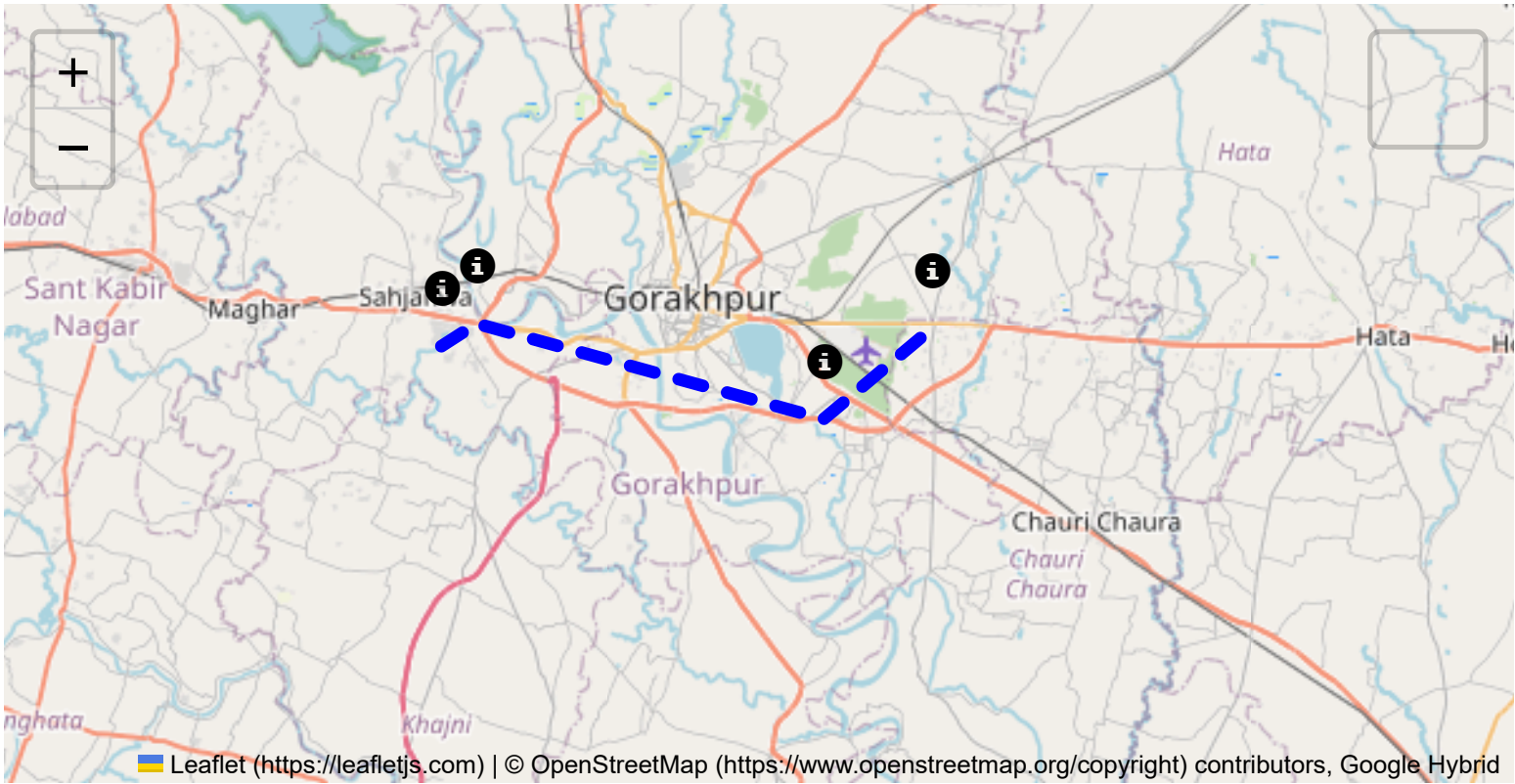
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 40.67 km**  
**Estimated Duration: 0.9 hours**  
**Adjusted Duration (Heavy Vehicle): 1.1 hours**  
**Start: (26.735959, 83.229398)**  
**End: (26.74384, 83.49684)**

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

This route involves traveling from GIDA Industrial Area Phase 1 in Sahjanwa to Khararaiech Khurd in Uttar Pradesh, with major waypoints at Kaalesar and Khorabar, in Gorakhpur district. The entire journey spans approximately 40.67 kilometers and is predominantly a regional road network connecting industrial, semi-urban, and rural areas.

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

The region experiences a humid subtropical climate with distinct seasonal variations:

- **Summer (March - June):** High temperatures with potential for heat-induced vehicle issues.
- **Monsoon (July - September):** Heavy rains that may cause flooding and waterlogging, affecting road conditions and visibility.
- **Winter (November - February):** Moderate conditions, although fog can reduce visibility during early mornings and evenings.

## 3. Analysis of Traffic Patterns

- **Peak Hours:** Mornings (8-10 AM) and evenings (5-8 PM) see heavy traffic due to commuter movement, especially near industrial areas.
- **Congestion-Prone Areas:** Major congestion is likely in the urban areas of Gorakhpur, especially around Khorabar due to market areas and narrow streets.

## 4. Assessment of Road Quality and Infrastructure

- **Road Quality:** Mixed with well-paved sections in industrial areas and less maintained roads in rural segments.
- **Infrastructure:** Adequate signage is generally present, though some rural areas may have limited street lighting.

## 5. Suggestions for Alternative Routes

In case of emergencies or roadblocks:

- Consider using NH28 which runs parallel to sections of this route but ensure to check for vehicle restrictions and bridge capacities.

## 6. Summary of Local Regulations Affecting Hazardous Material Transport

- Transport of hazardous materials is regulated and requires permits.
- Restrictions may apply near densely populated areas and schools, especially during peak hours.

## 7. Overview of Historical Incidents

- **Accidents:** Few recorded accidents involving heavy vehicles primarily due to human error or adverse weather conditions.
- **Hazardous Material Spills:** Rare, but emphasize compliance with handling standards.

## 8. Environmental Considerations and Sensitive Areas



- **Environmental Zones:** No major ecologically sensitive areas directly along the route, but care near water bodies is crucial during transport.
- **Cultural Sites:** Ensure avoidance of transport during festival times in culturally significant areas.

## 9. Analysis of Communication Coverage

- **Coverage:** Generally strong along urban stretches with potential weak spots in rural areas especially near Kaalesar.
- **Dead Zones:** May encounter short-lived dead zones; anticipate limited network in secluded rural parts.

## 10. Estimated Emergency Response Times

- **Urban Areas (Gorakhpur):** 15-30 minutes due to proximity to emergency services.
- **Rural Areas (Khararaiech Khurd):** 30-60 minutes, contingent on road conditions and weather.

## 11. Overall Summary of Risk Assessment

The route poses moderate risks primarily linked to weather-induced challenges and traffic congestion. Adherence to local transport regulations and effective communication are essential for safe transport of hazardous materials. Preparation for potential weather disruptions and knowledge of alternative routes will enhance overall safety. Regular updates on road conditions, especially in monsoon months, are vital.

### 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
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	8.99 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
12	Turn	Medium	26.74644, 83.25150	30 KM/Hr	9.07 km
13	Turn	Medium	26.74310, 83.25343	30 KM/Hr	9.49 km
14	Turn	Medium	26.74298, 83.25343	30 KM/Hr	9.51 km
15	Blind Spot	Blind Spot	26.71800, 83.50399	10 KM/Hr	36.85 km
16	Blind Spot	Blind Spot	26.71711, 83.50149	10 KM/Hr	37.21 km
17	Turn	High	26.71798, 83.50135	15 KM/Hr	37.32 km
18	Turn	High	26.71849, 83.49874	15 KM/Hr	37.56 km
19	Turn	High	26.74335, 83.49862	15 KM/Hr	40.38 km
20	Blind Spot	Blind Spot	26.74368, 83.49727	10 KM/Hr	40.49 km
21	Turn	High	26.74324, 83.49717	15 KM/Hr	40.55 km
22	Blind Spot	Blind Spot	26.74330, 83.49668	10 KM/Hr	40.60 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	33.39 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:** 4.30 km

**Coordinates:** 26.75381, 83.20466



**Risk Type:** Roundabout

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 8.99 km

**Coordinates:** 26.74681, 83.25111





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 9.07 km  
**Coordinates:** 26.74644, 83.25150



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 9.49 km  
**Coordinates:** 26.74310, 83.25343



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Distance from Start:** 9.51 km  
**Coordinates:** 26.74298, 83.25343



**Risk Type:** Blind Spot  
**Risk Level:** Blind Spot  
**Speed Limit:** 10 KM/Hr  
**Distance from Start:** 36.85 km  
**Coordinates:** 26.71800, 83.50399





**Risk Type:** Blind Spot  
**Risk Level:** Blind Spot  
**Speed Limit:** 10 KM/Hr  
**Distance from Start:** 37.21 km  
**Coordinates:** 26.71711, 83.50149



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 37.32 km  
**Coordinates:** 26.71798, 83.50135





**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 37.56 km  
**Coordinates:** 26.71849, 83.49874



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 40.38 km  
**Coordinates:** 26.74335, 83.49862





**Risk Type:** Blind Spot  
**Risk Level:** Blind Spot  
**Speed Limit:** 10 KM/Hr  
**Distance from Start:** 40.49 km  
**Coordinates:** 26.74368, 83.49727



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Distance from Start:** 40.55 km  
**Coordinates:** 26.74324, 83.49717



**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Distance from Start:** 40.60 km

**Coordinates:** 26.74330, 83.49668

## Download Reports



Download Excel Report



Download Interactive Map