



# IndianOil

## JOURNEY RISK MANAGEMENT (JRM) STUDY

### Gorakhpur LPG BP TO NAGENDRA INDANE GRAM

#### 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

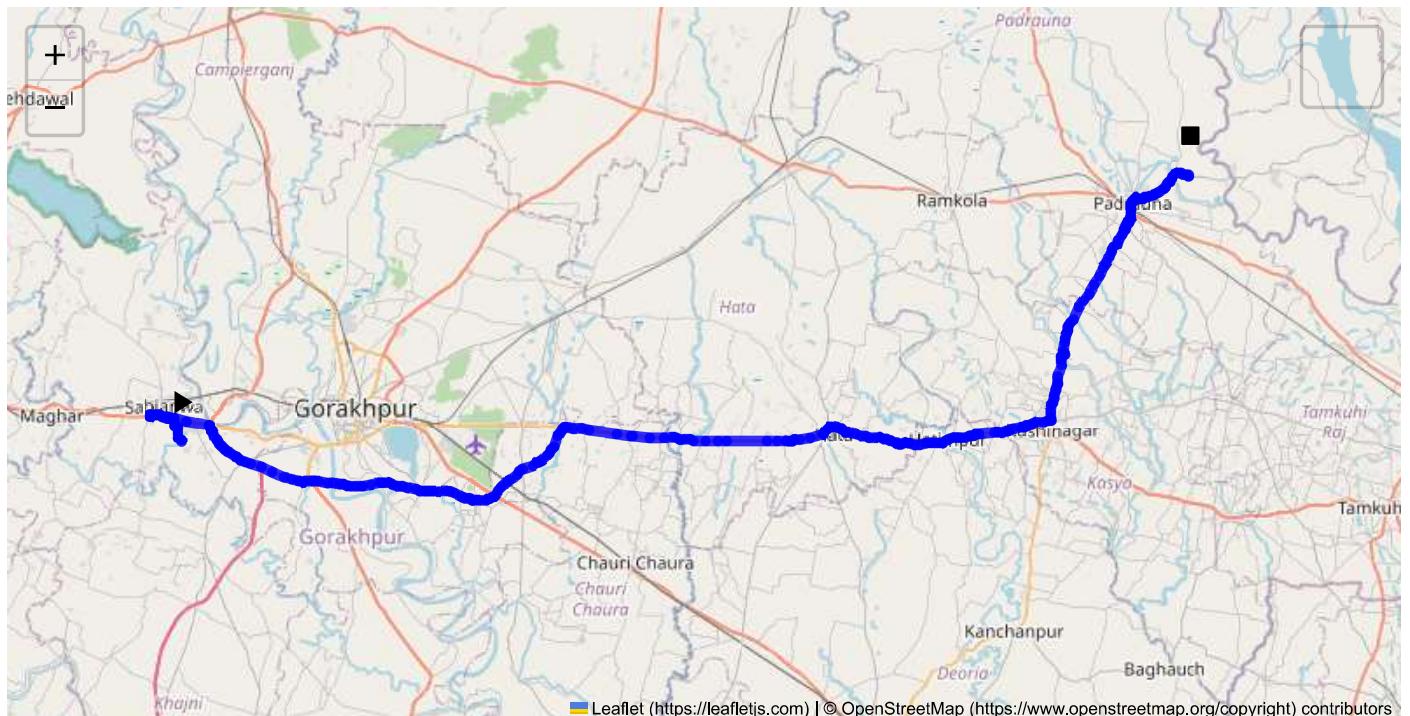
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 104.44 km**  
**Estimated Duration: 2.4 hours**  
**Adjusted Duration (Heavy Vehicle): 3.0 hours**  
**Start: (26.735959, 83.229398)**  
**End: (26.922887, 84.024025)**

## Welcome to the Journey Risk Management Study

### Route Safety Analysis Report

#### 1. Overview of the Route Map

The route covers approximately 104.44 kilometers between two locations in Uttar Pradesh, India, starting from the GIDA Industrial Area Phase 1 and ending at Jungle Khirkia, Jungle Amwa. The journey primarily involves traveling along major highways and connecting roads.

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

- **Typical Weather:** The region experiences a tropical climate with hot summers (April to June), a monsoon season (July to September), and cooler winters (November to February).
- **Weather Hazards:** During the monsoon, heavy rainfall can lead to waterlogged roads and potential flooding, which may affect visibility and road conditions. Fog can be an issue during winters, particularly in the early morning and late at night.

## 3. Traffic Patterns and Congestion

- **Peak Hours:** Traffic tends to peak in the morning (8:00-10:00 AM) and evening (5:00-7:00 PM) as commuters travel to and from work.
- **Congestion-Prone Areas:** The route may encounter congestion near busy market areas, especially around Sahjanwa and urban centers along the way. Construction and toll booths can also slow down traffic.

## 4. Road Quality and Infrastructure Assessment

- **Main Highways:** Generally well-maintained with clear signage, although potholes can develop, particularly post-monsoon.
- **Connecting Roads:** These may be narrower with variable maintenance quality. Some rural stretches may have limited lighting at night.

## 5. Alternative Routes for Emergencies

- **Alternate Route:** Consider using state highways that run parallel and are less congested, albeit slightly longer. Local roads can be an option but may not support heavy vehicles.

## 6. Local Regulations on Hazardous Material Transport

- Strict regulations require hazardous materials to be transported in clearly marked containers with appropriate safety measures.
- Speed limits are lower for vehicles carrying hazardous materials, and permits may be required for transport.

## 7. Historical Incidents Involving Heavy Vehicles or Hazardous Materials

- Incidents:** There have been reports of accidents involving heavy vehicles due to overloading and mechanical failures, primarily on rural roads due to improper upkeep.
- Response:** Efforts are in place to improve safety practices through enhanced driver training and strict enforcement of load regulations.

## 8. Environmental Considerations and Sensitive Areas

- Protected Areas:** The route does not significantly impact national parks or wildlife sanctuaries but does pass through agricultural zones where spills could be detrimental.
- Sensitive Regions:** Pay particular attention to areas near water bodies to prevent potential contamination.

## 9. Communication Coverage and Dead Zones

- Network Coverage:** Major carriers offer good coverage along highways, but rural sections may have communication dead zones. Use of satellite phones or radio communication is advised for uninterrupted connectivity.

## 10. Estimated Emergency Response Times

- On National Highways:** Approximately 30-45 minutes for emergency services.
- On Rural Roads:** Could extend to 1-2 hours due to accessibility challenges.

## 11. Summary of Risk Assessment

- Overall Risk Level:** Moderate, with risks mainly due to weather, road quality, and variable traffic conditions.
- Recommendations:** Equip vehicles with GPS for navigation and emergency communication systems. Ensure drivers are trained to handle hazardous materials safely and are aware of alternate routes and emergency procedures.

Overall, while the route from Sahjanwa to Jungle Amwa is relatively straightforward, consideration of weather, road conditions, and adherence to safety protocols is critical to ensure a safe journey when transporting hazardous materials.

## Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
1	Turn	High	26.73746, 83.22938	15 KM/Hr	0.14 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.47 km
3	Turn	High	26.74524, 83.22746	15 KM/Hr	1.16 km
4	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
5	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.16 km
6	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.22 km
7	Turn	High	26.75377, 83.20465	15 KM/Hr	4.27 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.13 km
8	Turn	High	26.74995, 83.91445	15 KM/Hr	80.02 km
9	Turn	High	26.79593, 83.92328	15 KM/Hr	85.24 km
10	Turn	High	26.79698, 83.92524	15 KM/Hr	85.41 km
11	Turn	Medium	26.79738, 83.92537	30 KM/Hr	85.52 km
12	Turn	Medium	26.89826, 83.97853	30 KM/Hr	98.13 km
13	Turn	High	26.90471, 83.97911	15 KM/Hr	98.76 km
14	Turn	Medium	26.90464, 83.97991	30 KM/Hr	98.93 km
15	Turn	High	26.90682, 83.98223	15 KM/Hr	99.22 km
16	Turn	Medium	26.90647, 83.98284	30 KM/Hr	99.34 km
17	Turn	High	26.92222, 84.02375	15 KM/Hr	104.20 km

## Emergency Locations

Found: 3 hospital(s), 1 clinic(s)

	type	name		coordinates	speed_limit	risk_level	Distance from Start
0	hospital	RG Hospital		26.7372178, 83.5824469	30 km/h	Medium	45.83 km
1	clinic	Qazi Poly Clinic		26.7503799, 83.9126991	30 km/h	Medium	79.66 km
2	hospital	Kodai Shukla Nidaan Kendra		26.8920488, 83.9769186	30 km/h	Medium	97.31 km
3	hospital	Government Hospital		26.9021839, 83.9763688	30 km/h	Medium	98.51 km

## Crowded Spots

### Route Photos of Risky Spots



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 2.16 km

Coordinates: 26.75126, 83.22476



Risk Type: Blind Spot

Risk Level: Blind Spot

**Speed Limit: 10 KM/Hr**

**Distance from Start: 4.22 km**

**Coordinates: 26.75353, 83.20457**



**Risk Type: Turn**

**Risk Level: High**

**Speed Limit: 15 KM/Hr**

**Distance from Start: 4.27 km**

**Coordinates: 26.75377, 83.20465**



**Risk Type: Roundabout**

**Risk Level: High**

**Speed Limit: 15 KM/Hr**

**Distance from Start: 8.13 km**

**Coordinates: 26.74681, 83.25111**



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 80.02 km

**Coordinates:** 26.74995, 83.91445



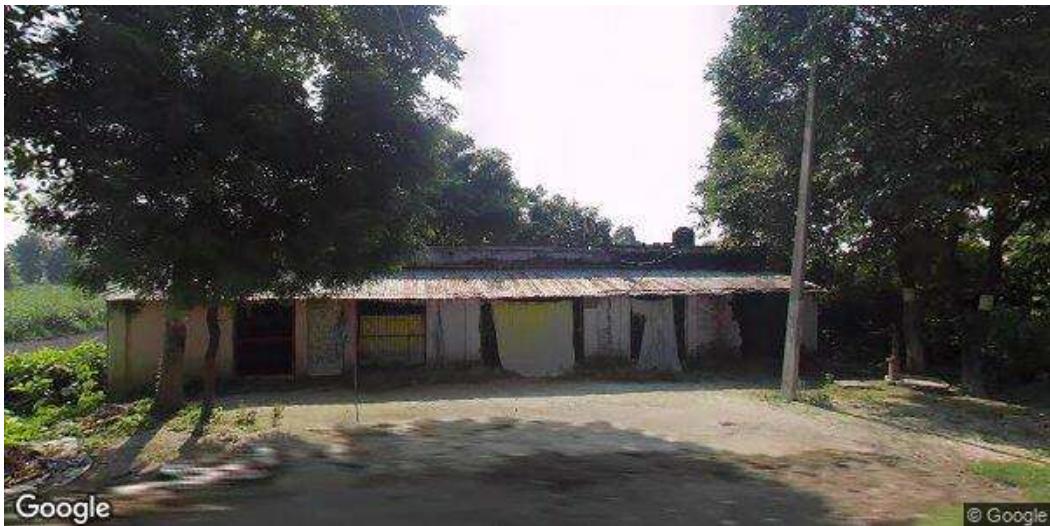
**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 85.24 km

**Coordinates:** 26.79593, 83.92328



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 85.41 km

**Coordinates:** 26.79698, 83.92524

**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 85.52 km

**Coordinates:** 26.79738, 83.92537



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 98.13 km

**Coordinates:** 26.89826, 83.97853



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 98.76 km

**Coordinates:** 26.90471, 83.97911



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**Risk Type: Turn****Risk Level: Medium****Speed Limit: 30 KM/Hr****Distance from Start: 98.93 km****Coordinates: 26.90464, 83.97991**

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**Risk Type: Turn****Risk Level: High****Speed Limit: 15 KM/Hr****Distance from Start: 99.22 km****Coordinates: 26.90682, 83.98223**



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 99.34 km

**Coordinates:** 26.90647, 83.98284



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 104.20 km

**Coordinates:** 26.92222, 84.02375

## Download Reports



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