



## JOURNEY RISK MANAGEMENT (JRM) STUDY

**Gorakhpur LPG BP TO ANSHI INDANE GAS SER**

### 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

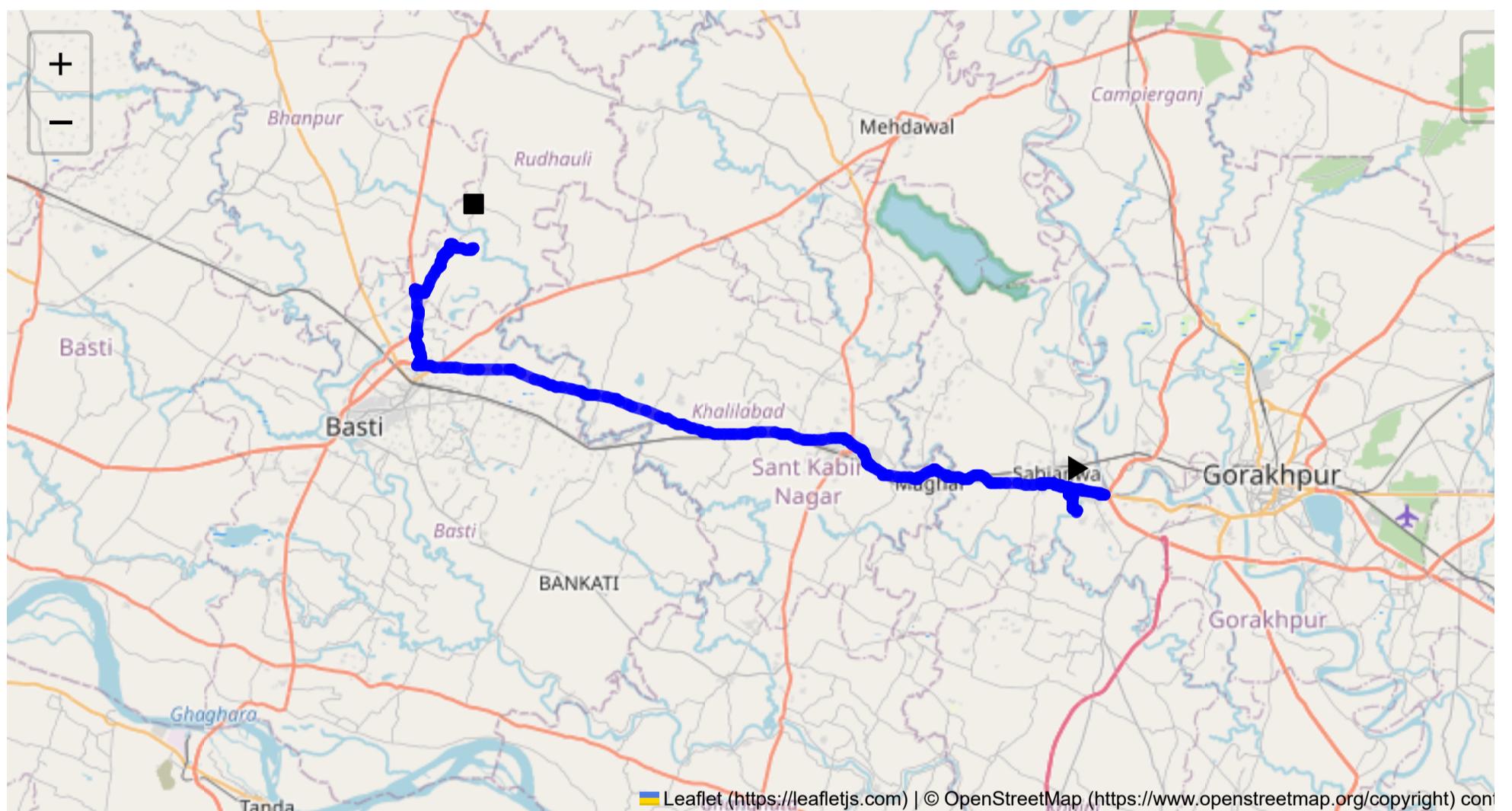
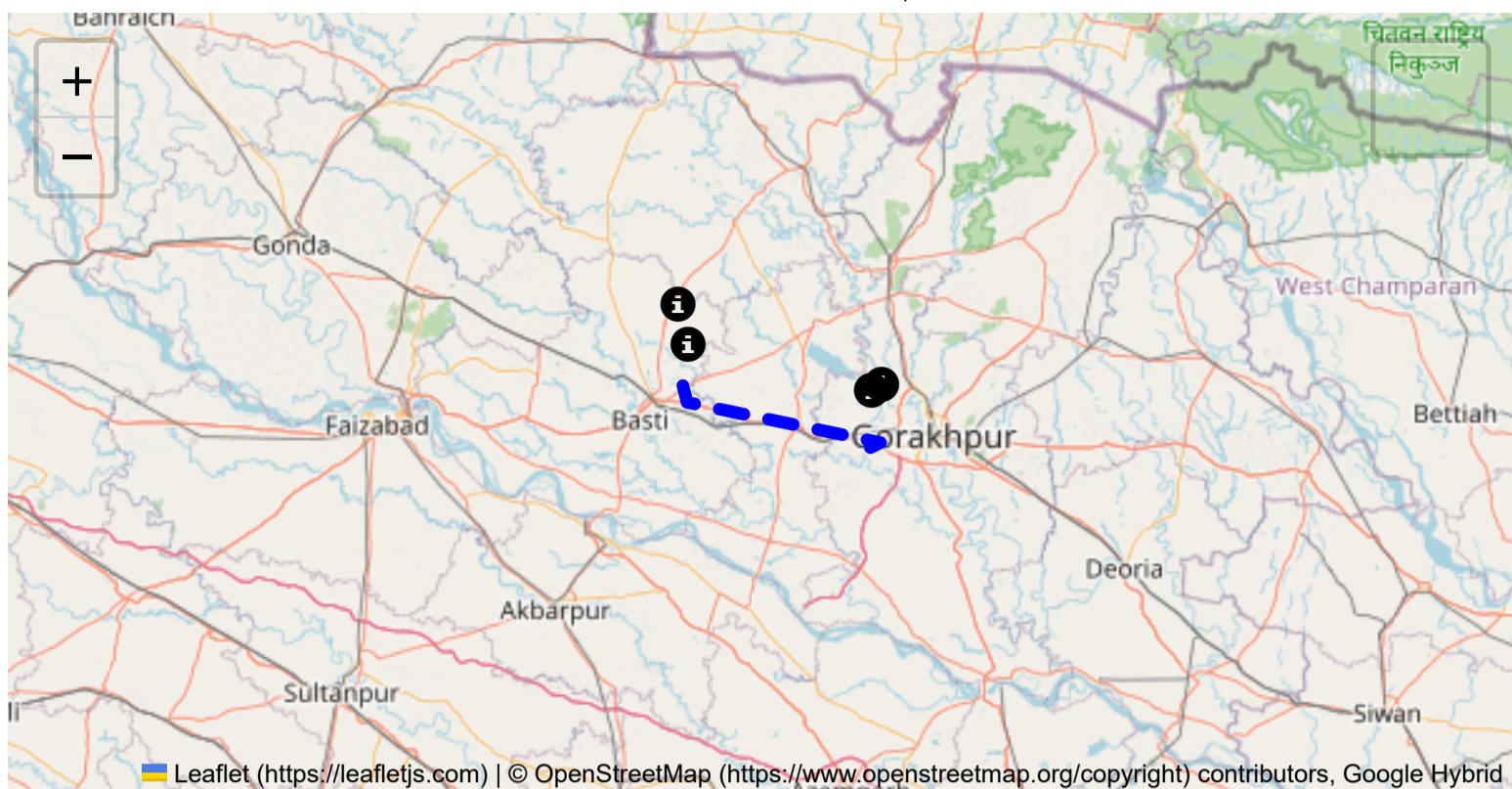
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 70.92 km**  
**Estimated Duration: 1.5 hours**  
**Adjusted Duration (Heavy Vehicle): 1.9 hours**  
**Start: (26.735959, 83.229398)**  
**End: (26.90159, 82.80563)**

## Welcome to the Journey Risk Management Study

### Route Safety Analysis

- Overview of the Route Map:** The route from P6PH+9Q GIDA Industrial Area, Sahjanwa to WR24+J7 Gandhriya Faj via 01 Zero Point, Kaalesar, and Dasota NH 27, Parsa Jafer, covers about 70.92 kilometers. It primarily traverses through a combination of industrial, rural, and semi-urban environments.

**2. Typical Weather Conditions and Potential Weather-Related Hazards:** The region experiences a subtropical climate with hot summers, monsoon rains, and mild winters. The key weather-related hazards include:

- Heavy monsoon rains between June and September can result in localized flooding and reduced visibility on the roads.
- Fog in winters (December to February) can greatly reduce visibility, particularly in early mornings and late evenings.

**3. Traffic Patterns, Highlighting Peak Hours and Congestion-Prone Areas:**

- Industrial area movements peak during early mornings (6 AM - 9 AM) and late afternoons (5 PM - 7 PM) due to shift changes.
- Congestion is likely around the junction at 01 Zero Point and Dasota NH 27 during these peak hours, as it serves as a connecting node for local traffic.

**4. Assessment of Road Quality and Infrastructure:**

- Roads are generally well-maintained, especially NH 27; however, some sections near rural areas might have potholes and narrower lanes.
- Signage and lighting can be inconsistent, particularly outside urban centers, posing risks during night travel.

**5. Suggestions for Alternative Routes for Emergencies:**

- In case of blockade or hazards on the primary route, consider using SH 1, which runs parallel east of NH 27. Although longer, it may provide a less congested, smoother detour.

**6. Summary of Local Regulations Affecting Hazardous Material Transport:**

- Transporting hazardous materials requires a permit from local authorities. Ensure compliance with routes designated for hazardous transport, typically national highways.
- Regular checkpoints may be present to verify compliance with safety standards.

**7. Overview of Historical Incidents:**

- Previous incidents include vehicle breakdowns and minor collisions, mainly in congested traffic areas. Some reports of spills highlight the need for robust containment measures.

**8. Environmental Considerations and Sensitive Areas:**

- Wildlife crossings and agricultural zones are present along rural stretches, with the potential to encounter stray animals.
- Awareness and caution are essential, especially where visibility can be poor due to environmental conditions.

**9. Communication Coverage, Noting Potential Dead Zones:**

- Major segments should have robust cell coverage; however, some rural stretches might experience patchy signals.

- Regular updates on communication blackouts can be obtained from local telecom operators.

#### 10. Estimated Emergency Response Times:

- Urban sections, roughly 15-30 minutes response time due to proximity to hospitals and fire stations.
- Rural segments might see a delay, averaging 45-60 minutes, due to distance and road accessibility.

**11. Overall Summary of Risk Assessment:** The route, while generally reliable, poses challenges under adverse weather conditions and during peak traffic hours. Major risks include visibility issues due to fog, congestion-related delays, and potential communication breakdowns. Ensuring up-to-date contact with emergency services, adherence to local hazardous material regulations, and the adoption of contingency routes are crucial for maintaining safety. Regular updates on road conditions and real-time traffic can further enhance preparedness for any eventuality.

## 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	1.28 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	U-Turn	High	26.7471208, 83.2490873	10 KM/Hr	8.76 km
11	Blind Spot	Blind Spot	26.74712, 83.24909	10 KM/Hr	8.76 km
12	Turn	High	26.74703, 83.24907	15 KM/Hr	8.79 km
13	Blind Spot	Blind Spot	26.82809, 82.76755	10 KM/Hr	59.01 km
14	Turn	Medium	26.83965, 82.76772	30 KM/Hr	60.41 km
15	Turn	Medium	26.84763, 82.76664	30 KM/Hr	61.35 km
16	Turn	High	26.84777, 82.76661	15 KM/Hr	61.38 km
17	Blind Spot	Blind Spot	26.84783, 82.76633	10 KM/Hr	61.41 km
18	Blind Spot	Blind Spot	26.87522, 82.76558	10 KM/Hr	64.48 km
19	Turn	Medium	26.87383, 82.77251	30 KM/Hr	65.20 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
20	Turn	Medium	26.89912, 82.78776	30 KM/Hr	68.38 km
21	Turn	Medium	26.89919, 82.78789	30 KM/Hr	68.44 km
22	Turn	High	26.89916, 82.78824	15 KM/Hr	68.47 km
23	Turn	Medium	26.90213, 82.78998	30 KM/Hr	68.81 km
24	Turn	Medium	26.90319, 82.79022	30 KM/Hr	68.97 km
25	Turn	Medium	26.90326, 82.79033	30 KM/Hr	68.99 km
26	Turn	High	26.90320, 82.79103	15 KM/Hr	69.04 km
27	Blind Spot	Blind Spot	26.90338, 82.79120	10 KM/Hr	69.08 km
28	Turn	High	26.89956, 82.80563	15 KM/Hr	70.55 km
29	Turn	High	26.90149, 82.80624	15 KM/Hr	70.72 km

## Emergency Locations

Found: 2 hospital(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	hospital	Patel Hospital, Sant Kabir Nagar	26.7882737, 82.9600798	30 km/h	Medium	38.95 km
1	hospital	Aaman Hospital	26.8262775, 82.8111704	30 km/h	Medium	54.19 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



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**Risk Type: Turn****Risk Level: High****Speed Limit: 15 KM/Hr****Distance from Start: 4.28 km****Coordinates: 26.75377, 83.20465**

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**Risk Type: U-Turn****Risk Level: High****Speed Limit: 10 KM/Hr****Distance from Start: 8.76 km****Coordinates: 26.7471208, 83.2490873**



**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Distance from Start:** 8.76 km

**Coordinates:** 26.74712, 83.24909



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Distance from Start:** 8.79 km

**Coordinates:** 26.74703, 83.24907



**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Distance from Start:** 59.01 km

**Coordinates:** 26.82809, 82.76755



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 60.41 km

**Coordinates:** 26.83965, 82.76772



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**Risk Type:** Turn**Risk Level:** Medium**Speed Limit:** 30 KM/Hr**Distance from Start:** 61.35 km**Coordinates:** 26.84763, 82.76664

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**Risk Type:** Turn**Risk Level:** High**Speed Limit:** 15 KM/Hr**Distance from Start:** 61.38 km**Coordinates:** 26.84777, 82.76661



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**Risk Type:** Blind Spot**Risk Level:** Blind Spot**Speed Limit:** 10 KM/Hr**Distance from Start:** 61.41 km**Coordinates:** 26.84783, 82.76633

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**Risk Type:** Blind Spot**Risk Level:** Blind Spot**Speed Limit:** 10 KM/Hr**Distance from Start:** 64.48 km**Coordinates:** 26.87522, 82.76558



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Distance from Start:** 65.20 km

**Coordinates:** 26.87383, 82.77251

## Download Reports

 Download Excel Report

 Download Interactive Map