JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO ANUPAM INDANE GAS SE

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

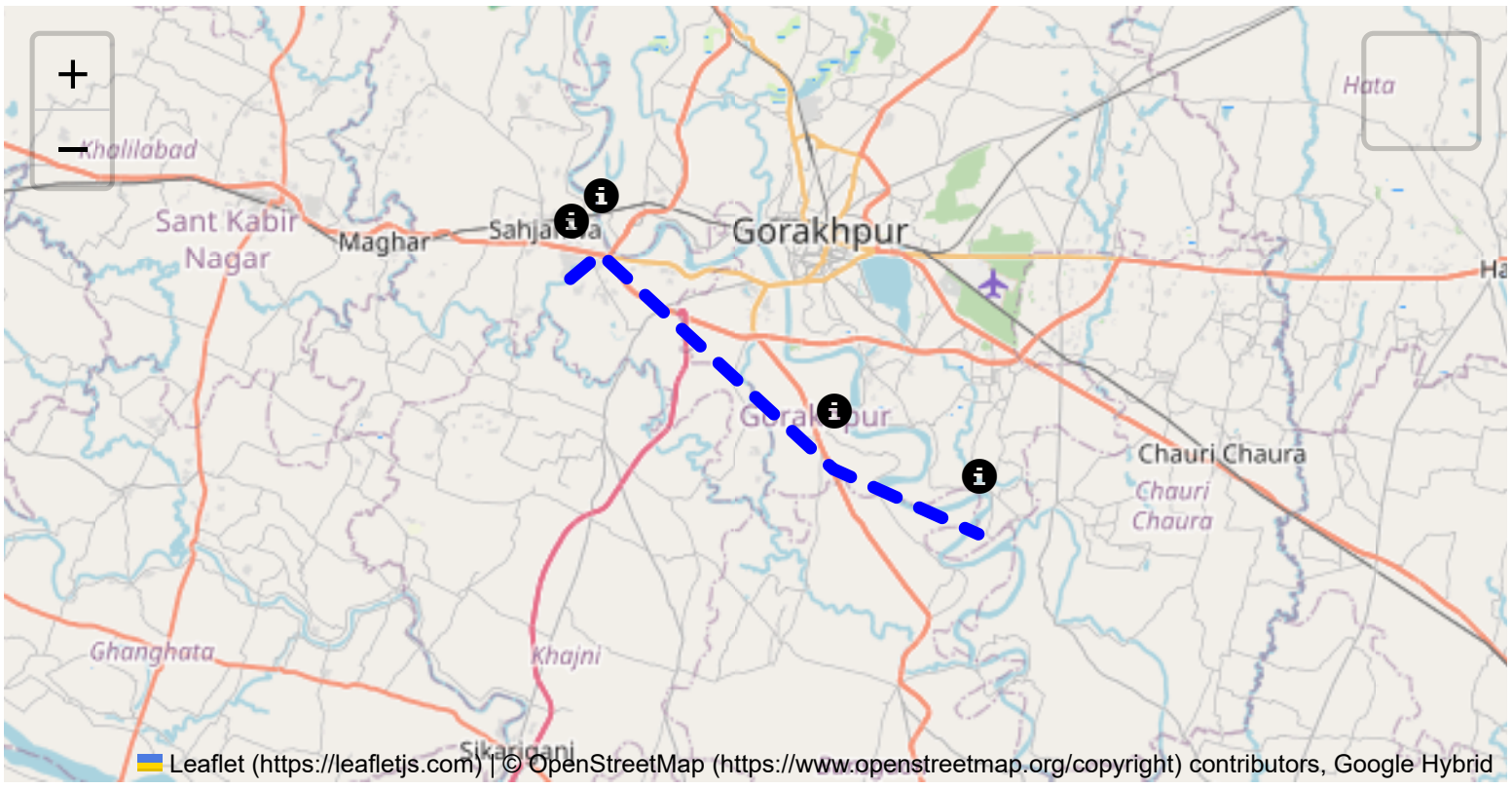
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

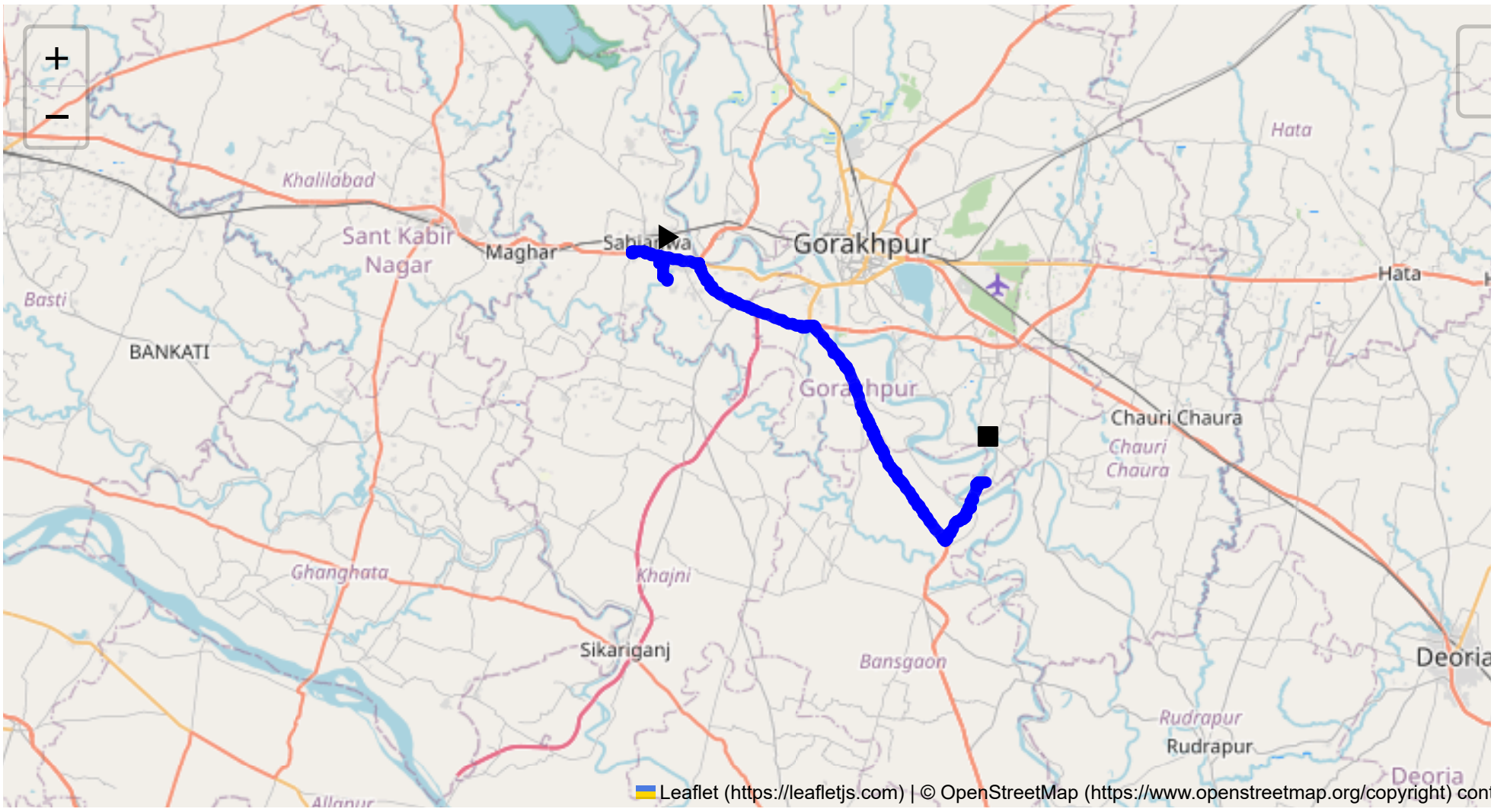
Journey Risk Mitigation

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: 46.12 km
Estimated Duration: 1.1 hours
Adjusted Duration (Heavy Vehicle): 1.4 hours
Start: (26.735959, 83.229398)
End: (26.610255, 83.453591)

Welcome to the Journey Risk Management Study

Certainly! Here’s an analysis covering the requested points for the route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, to JF63+4C Pyasee, Uttar Pradesh, India via the specified locations.

1. Overview of the Route Map

The route spans approximately 46.12 kilometers primarily along national highways and local roads. Starting from the GIDA Industrial Area in Sahjanwa, it follows a path through Kaalesar and Chandauli Khurd, ultimately ending in Pyasee. The route is largely rural with interspersed semi-urban areas, involving several turns and highway junctions.

2. Typical Weather Conditions

- **Seasonal Variations:** The region experiences a subtropical climate.
- **Monsoon (June to September):** Heavy rains can cause waterlogging and reduce visibility.
- **Winter (December to February):** Fog is common, particularly in early mornings, causing visibility issues.
- **Summer (March to May):** High temperatures can affect vehicle performance.

3. Traffic Patterns

- **Peak Hours:** Early morning (8-10 AM) and late afternoon (5-7 PM) when people commute to and from work or markets.
- **Congestion-Prone Areas:**
  - Sahjanwa junctions due to local traffic.
  - Entry and exit points around Chandauli Khurd.

4. Road Quality and Infrastructure

- **NH 24:** Generally well-maintained but can encounter occasional potholes and uneven surfaces.
- **Local Roads:** Varied conditions, with some narrower stretches and potential roadblocks due to local activities.

5. Suggestions for Alternative Routes

- In case of emergencies or blockages on NH 24, consider using SH (State Highway) options after consulting local traffic management or authorities for real-time advice.

6. Hazardous Material Transport Regulations

- **Permits Required:** Special permits for hazardous materials are mandatory.
- **Restrictions:** Adherence to designated routes and timing restrictions to avoid peak traffic hours.

7. Historical Incidents

- Limited documented incidents specific to this route, but general care is advised due to narrow rural roads and agricultural crossings which may not always be visible.

8. Environmental Considerations

- **Sensitive Areas:** Agricultural fields along the route which may be sensitive to spills.

- **Wildlife Crossings:** Be vigilant near forested sections and fields, particularly after dusk.

9. Communication Coverage

- **Coverage:** Generally good along NH 24 but potential weak signals in rural stretches.
- **Dead Zones:** Intermittent around heavily forested or less populated areas.

10. Emergency Response Times

- **Near Urban Centers (e.g., Sahjanwa):** Approximately 30-45 minutes.
- **Rural Sections:** Can range from 1-2 hours due to less frequent patrolling and emergency facilities.

11. Overall Summary of Risk Assessment

This route is moderately risky primarily due to potential seasonal weather hazards, rural road conditions, and the transport of hazardous materials. Drivers should undertake extra precautions during monsoons and winter fog, ensure compliance with local transport regulations, and have contingency contacts and emergency plans prepared in case of unforeseen events. Regular updates on weather and traffic conditions should be monitored throughout the journey.

By understanding these factors and preparing accordingly, drivers can navigate the route more safely and efficiently.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
3	Turn	High	26.73690, 83.22947	15 KM/Hr	0.07 km
4	Turn	High	26.73697, 83.22939	15 KM/Hr	0.11 km
5	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km
6	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.48 km
7	Turn	Medium	26.74524, 83.22746	30 KM/Hr	1.30 km
8	Turn	Medium	26.74532, 83.22740	30 KM/Hr	1.32 km
9	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
10	Turn	Medium	26.74661, 83.22388	30 KM/Hr	1.70 km
11	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.17 km
12	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.23 km
13	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
14	Turn	Medium	26.74644, 83.25150	30 KM/Hr	9.07 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
15	Turn	Medium	26.74310, 83.25343	30 KM/Hr	9.49 km
16	Turn	Medium	26.74298, 83.25343	30 KM/Hr	9.51 km
17	Turn	High	26.70798, 83.33175	15 KM/Hr	18.63 km
21	Turn	High	26.64622, 83.37149	15 KM/Hr	26.62 km
1	U-Turn	High	26.6295474, 83.3803865	10 KM/Hr	28.65 km
18	Blind Spot	Blind Spot	26.62955, 83.38039	10 KM/Hr	28.65 km
19	Turn	High	26.62952, 83.38026	15 KM/Hr	28.72 km
2	U-Turn	High	26.6461698, 83.3713844	10 KM/Hr	30.73 km
20	Blind Spot	Blind Spot	26.64617, 83.37138	10 KM/Hr	30.73 km
22	Turn	Medium	26.57420, 83.42369	30 KM/Hr	40.25 km
23	Turn	Medium	26.57416, 83.42382	30 KM/Hr	40.39 km
24	Blind Spot	Blind Spot	26.57275, 83.42515	10 KM/Hr	40.58 km
25	Turn	High	26.59323, 83.44100	15 KM/Hr	43.51 km
26	Turn	High	26.59331, 83.44289	15 KM/Hr	43.70 km
27	Turn	High	26.60738, 83.44758	15 KM/Hr	45.34 km
28	Turn	High	26.60761, 83.44725	15 KM/Hr	45.40 km
29	Turn	High	26.60768, 83.44724	15 KM/Hr	45.42 km
30	Turn	Medium	26.60994, 83.45257	30 KM/Hr	46.03 km

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: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 18.63 km

Coordinates: 26.70798, 83.33175

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 28.72 km

Coordinates: 26.62952, 83.38026

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 40.25 km

Coordinates: 26.57420, 83.42369

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 40.39 km

Coordinates: 26.57416, 83.42382

Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 40.58 km

Coordinates: 26.57275, 83.42515

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 43.51 km

Coordinates: 26.59323, 83.44100

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 45.34 km

Coordinates: 26.60738, 83.44758

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 45.40 km

Coordinates: 26.60761, 83.44725

Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 45.42 km

Coordinates: 26.60768, 83.44724

Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 46.03 km

Coordinates: 26.60994, 83.45257

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