



JOURNEY RISK MANAGEMENT (JRM) STUDY

Gorakhpur LPG BP TO DUMWALIA 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

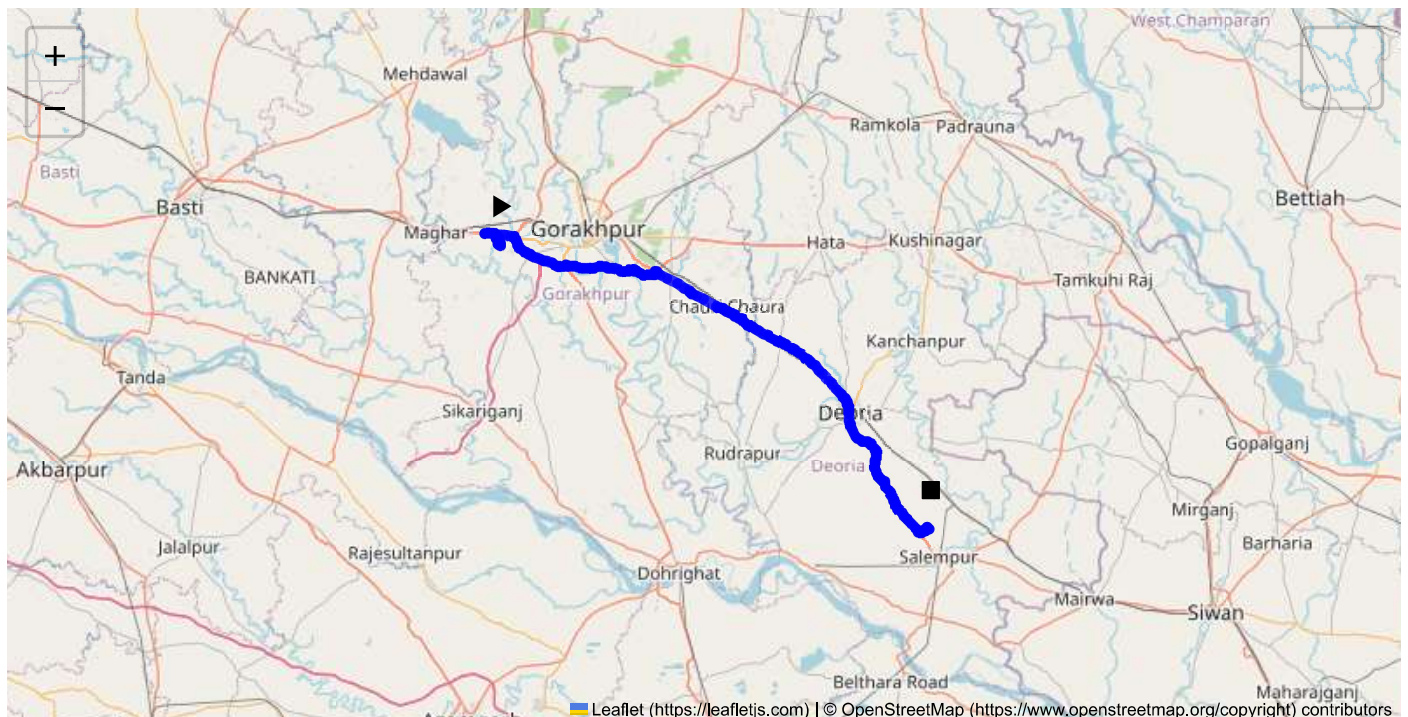
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental 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: 97.27 km

Estimated Duration: 2.1 hours

Adjusted Duration (Heavy Vehicle): 2.7 hours

Start: (26.735959, 83.229398)

End: (26.336148, 83.904313)

Welcome to the Journey Risk Management Study

Route Safety Analysis Report

1. Overview of the Route Map

The route from P6PH+9Q GIDA Industrial Area Phase 1, Sahjanwa, to 8WP3+FP Madan Mahuawa, Uttar Pradesh, spans approximately 97.27 kilometers. Starting from the industrial area, this route likely involves major highways and smaller local roads to reach the destination in Madan Mahuawa.

2. Weather Conditions and Hazards

Typical weather conditions in Uttar Pradesh include:

- **Summer:** High temperatures, which could lead to road surface deterioration.
- **Monsoon (July to September):** Heavy rainfall causing waterlogging and potential flooding, making roads slippery and increasing accident risks.
- **Winter:** Fog, particularly in the early mornings and evenings, reducing visibility and necessitating cautious driving.

3. Traffic Patterns

- **Peak Hours:** Morning (7:30 AM - 10:00 AM) and evening (5:00 PM - 8:00 PM) see increased traffic due to commuters.
- **Congestion-Prone Areas:** Urban areas near Gorakhpur and smaller towns can be congested, especially near market zones and industrial areas.

4. Road Quality and Infrastructure

- **Highways:** Generally well-maintained but may have patches requiring caution. Potholes can be common after monsoon season.
- **Local Roads:** Lesser quality, with potential for uneven surfaces; require careful navigation, especially for heavy vehicles.

5. Alternative Routes for Emergencies

In case of emergencies like roadblocks or severe congestion, the following alternatives might be useful:

- **Via NH24 and local roads:** An alternate route that might bypass some congested towns.
- **Consult local traffic updates** for diversions during festivals or events.

6. Local Regulations on Hazardous Material Transport

- **Restricted Timings:** Certain areas may have specific timings during which hazardous materials cannot be transported.
- **Permit Requirements:** Ensure all necessary permits for transporting hazardous materials are obtained in advance.

7. Historical Incidents

While specific data may not be readily available, the region has recorded incidents related to:

- **Heavy vehicle collisions:** Often due to poor visibility and road conditions.
- **Transport of hazardous materials:** Rare incidents stem from inadequate safety measures.

8. Environmental Considerations

- **Sensitive Areas:** Ensure compliance with regulations when passing through agricultural lands.
- **Wildlife Crossings:** Possible in certain stretches, requiring reduced speeds and vigilance.

9. Communication Coverage

- **Potential Dead Zones:** Some rural areas may have poor mobile network coverage.
- **Reliable Providers:** Ensure mobile connectivity with reliable service providers.

10. Estimated Emergency Response Times

- **Urban Areas:** Approximately 30-45 minutes, depending on traffic.
- **Remote Areas:** Could extend to over an hour, influenced by road conditions and distance from emergency services.

11. Overall Summary of Risk Assessment

This route, typical for transporting industrial goods, presents challenges primarily during extreme weather conditions (monsoons) and during peak traffic hours. Key risks include road quality issues, especially post-monsoon, fog-related visibility concerns in winter, and potential delays due to congestion in urban areas. Adequate preparation, awareness of local regulations, and emergency contact availability are crucial for managing risks effectively.

Recommendations:

- Adhere strictly to weather advisories.
- Plan trips outside peak traffic when possible.
- Continuous monitoring of road conditions and real-time traffic updates.
- Driver training in handling hazardous materials and following emergency protocols.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
2	Turn	High	26.73746, 83.22938	15 KM/Hr	0.15 km

	Risk Type	Risk Level	Coordinates	Speed Limit	Distance from Start
3	Blind Spot	Blind Spot	26.73791, 83.22625	10 KM/Hr	0.47 km
4	Turn	High	26.74524, 83.22746	15 KM/Hr	1.16 km
5	Turn	High	26.74654, 83.22390	15 KM/Hr	1.65 km
6	Blind Spot	Blind Spot	26.75126, 83.22476	10 KM/Hr	2.16 km
7	Blind Spot	Blind Spot	26.75353, 83.20457	10 KM/Hr	4.22 km
8	Turn	High	26.75377, 83.20465	15 KM/Hr	4.27 km
0	Roundabout	High	26.74681, 83.25111	15 KM/Hr	8.79 km
9	Turn	Medium	26.69741, 83.47552	30 KM/Hr	33.25 km
10	Blind Spot	Blind Spot	26.69844, 83.47473	10 KM/Hr	33.41 km
1	U-Turn	High	26.698439, 83.4747268	10 KM/Hr	33.41 km
11	Turn	High	26.69857, 83.47481	15 KM/Hr	33.43 km
12	Turn	Medium	26.63752, 83.59723	30 KM/Hr	47.40 km
13	Turn	High	26.33011, 83.89135	15 KM/Hr	95.19 km
14	Turn	High	26.33086, 83.89197	15 KM/Hr	95.27 km
15	Turn	High	26.33027, 83.89523	15 KM/Hr	95.60 km
16	Turn	High	26.33214, 83.89567	15 KM/Hr	95.74 km
17	Turn	Medium	26.33181, 83.89784	30 KM/Hr	96.00 km
18	Turn	High	26.33188, 83.89795	15 KM/Hr	96.08 km
19	Blind Spot	Blind Spot	26.33268, 83.89810	10 KM/Hr	96.13 km
20	Turn	High	26.33216, 83.90027	15 KM/Hr	96.36 km
21	Turn	High	26.33692, 83.90153	15 KM/Hr	96.90 km

Emergency Locations

Found: 5 hospital(s), 1 clinic(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
1	hospital	Deoria Eye Hospital	26.5011867, 83.7750448	30 km/h	Medium	71.53 km
3	hospital	Aditya Hospital, Deoria	26.501938, 83.774963	30 km/h	Medium	71.53 km

	type	name	coordinates	speed_limit	risk_level	Distance from Start
2	hospital	Mahadeva Hospital and Maternity Home	26.4993, 83.7754301	30 km/h	Medium	71.75 km
5	hospital	K D Hospital, Deoria	26.4826171, 83.7821031	30 km/h	Medium	73.44 km
4	hospital	Sanjeevani Hospital, Deoria	26.4796329, 83.780432	30 km/h	Medium	74.06 km
6	clinic	Savitri Nursing Home, Deoria	26.4716292, 83.7854545	30 km/h	Medium	75.01 km

Crowded Spots

Found: 1 college(s)

	type	name	coordinates	speed_limit	risk_level	Distance from Start
0	college	BRD PG college	26.5161416, 83.7720277	30 km/h	Medium	69.82 km

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: 8.79 km
Coordinates: 26.74681, 83.25111



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Distance from Start: 33.25 km
Coordinates: 26.69741, 83.47552



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 33.41 km

Coordinates: 26.69844, 83.47473



Risk Type: U-Turn

Risk Level: High

Speed Limit: 10 KM/Hr

Distance from Start: 33.41 km

Coordinates: 26.698439, 83.4747268



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 33.43 km

Coordinates: 26.69857, 83.47481



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Distance from Start: 47.40 km

Coordinates: 26.63752, 83.59723



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Distance from Start: 95.19 km

Coordinates: 26.33011, 83.89135



Risk Type: Turn


Risk Level: High


Speed Limit: 15 KM/Hr

Distance from Start: 96.36 km

Coordinates: 26.33216, 83.90027

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