



# IndianOil

## JOURNEY RISK MANAGEMENT (JRM) STUDY

### IOCL Coimbatore Terminal to Arul Nandhi Agencies

#### 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**

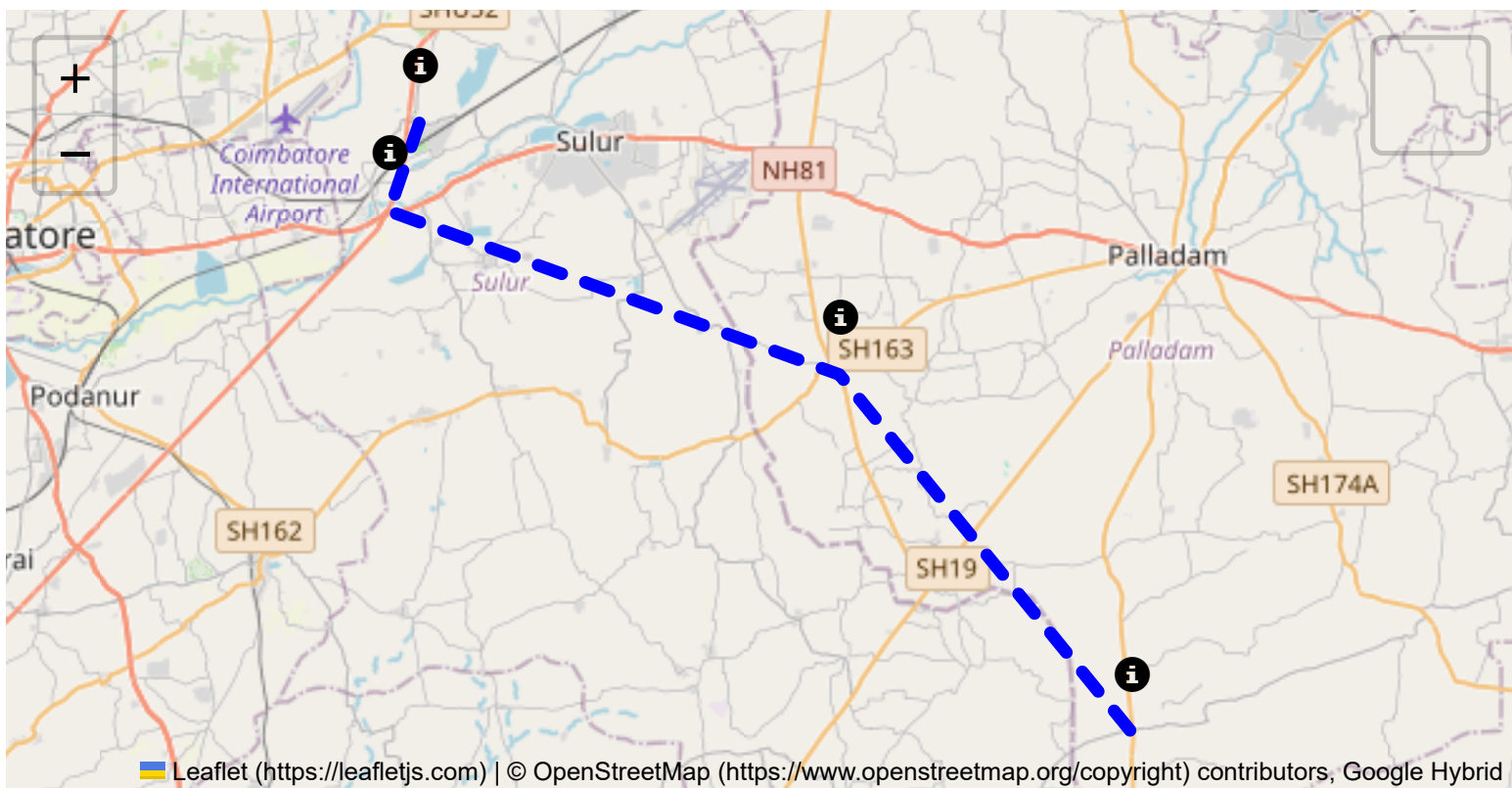
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

## **Journey Risk Mitigation**

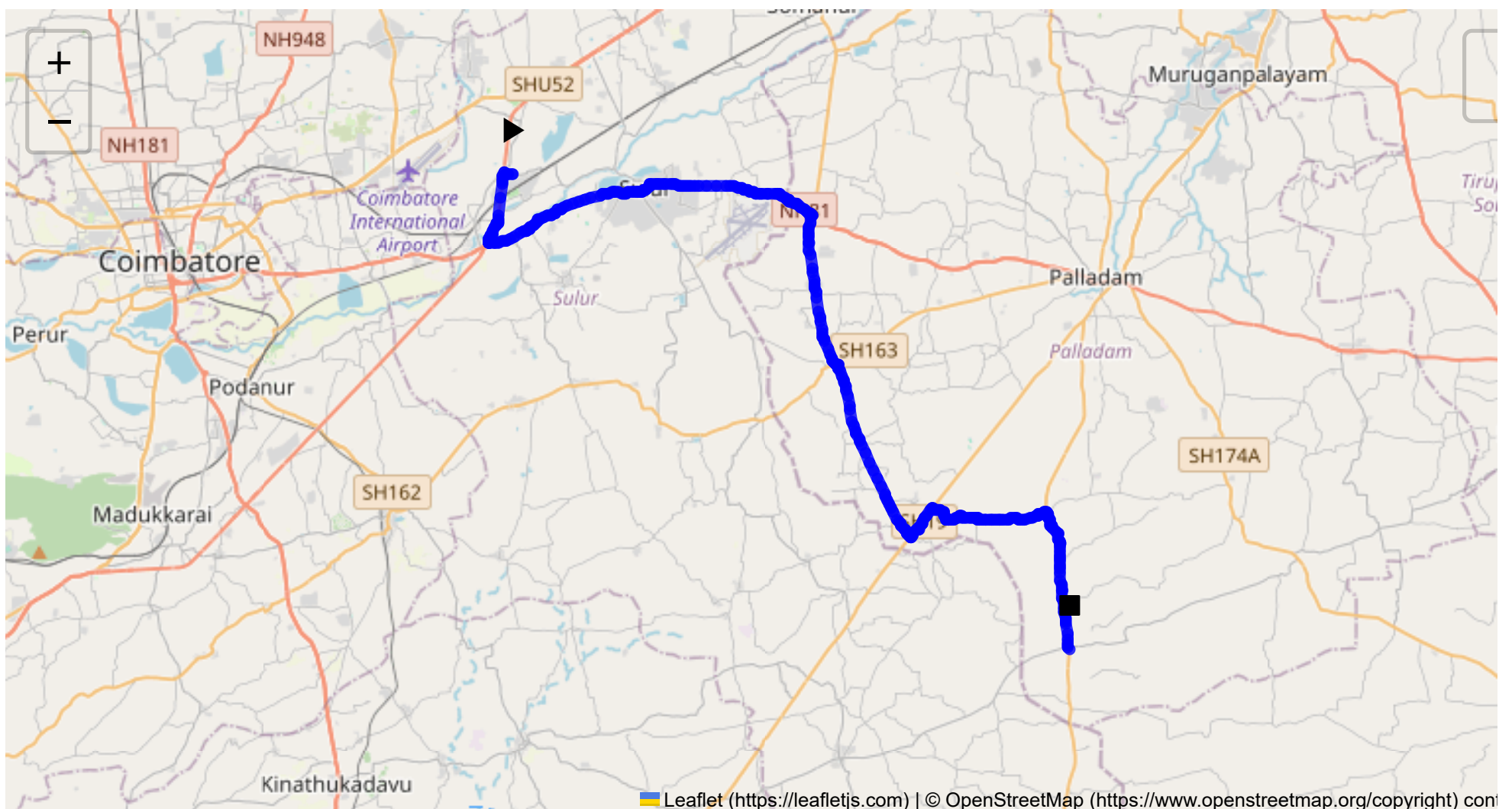
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 41.21 km**  
**Estimated Duration: 1.0 hours**  
**Adjusted Duration (Heavy Vehicle): 1.2 hours**  
**Start: (11.0315, 77.0797)**  
**End: (10.868164, 77.273883)**



## Welcome to the Journey Risk Management Study

### Route Overview

The route spans approximately 41.21 kilometers and typically takes around 0.98 hours for heavy vehicles carrying hazardous materials. This trip begins at Athappagoundenpudur in Coimbatore, traverses through Chinthamanipudur along Trichy Rd, moves through Karadivavi, and concludes at Tiruppur.

## Weather Conditions

- **Typical Weather:** The region generally experiences a moderate tropical climate. Summers are hot and dry, while the monsoon brings heavy rain from June to September. Winters are mild and pleasant.
- **Potential Hazards:**
  - **Monsoon Rains:** Can cause slippery roads and reduced visibility.
  - **Heatwaves:** Impact vehicle performance and pose health risks.

## Traffic Patterns

- **Peak Hours:**
  - Morning: 8 AM - 10 AM
  - Evening: 5 PM - 8 PM
- **Congestion-prone Areas:**
  - Near urban zones in Coimbatore and Tiruppur.
  - Busy intersections and market areas on Trichy Rd.

## Road Quality and Infrastructure

- **Assessment:**
  - Roads vary from good to moderate quality.
  - Some rural stretches may have narrow lanes.
  - Occasional potholes and poorly marked lanes in less-maintained sections.

## Alternative Routes

- **Emergencies:** For emergencies or blockages, consider taking the NH81 as an alternative, which may bypass some congested areas, but check for current conditions as this can also affect travel time.

## Local Regulations on Hazardous Material Transport

- **Permits Required:** Special transportation permits for hazardous materials.
- **Restricted Areas:** Some city areas may have restrictions on heavy vehicles during daytime.

## Historical Incidents

- **Heavy Vehicles and Hazmat:** No recent notable incidents reported specifically for this route. However, general precautions for road sharing with fast-moving urban vehicles need to be observed.

## Environmental Considerations

- **Sensitive Areas:**
  - Water bodies near Karadivavi that require protection against spills.
  - Agricultural lands necessitating caution to prevent contamination.

# Communication Coverage

- **Analysis:**
  - Urban areas generally have good coverage.
  - Possible dead zones in rural areas, especially between Karadivavi and Tiruppur.

# Emergency Response Times

- **Estimation:**
  - Urban: 15-30 minutes
  - Rural areas might experience delays, up to 45 minutes, due to distance and road conditions.

# Comprehensive Risk Assessment Summary

- **Overall Risk:** Moderate
- **Key Risks:**
  - Weather impacts, especially during monsoon
  - Traffic congestion and potential delays
  - Varied road quality needing attention

Drivers should exercise caution, particularly under adverse weather conditions or during peak traffic hours. Adhering to regulations and monitoring real-time traffic updates will contribute to a safer and more efficient journey. Coordination with local authorities for updates on road conditions and restrictions is also recommended.

## Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit
0	Blind Spot	Blind Spot	11.03211, 77.07640	10 KM/Hr
1	Turn	Medium	11.00778, 77.07085	30 KM/Hr
2	Turn	High	11.00773, 77.07090	15 KM/Hr
3	Turn	High	11.01756, 77.18431	15 KM/Hr
4	Turn	High	10.96614, 77.19246	15 KM/Hr
5	Turn	High	10.96628, 77.19310	15 KM/Hr
6	Turn	High	10.90677, 77.21849	15 KM/Hr
7	Turn	High	10.91683, 77.22646	15 KM/Hr
8	Turn	Medium	10.91602, 77.22744	30 KM/Hr
9	Turn	Medium	10.91255, 77.23134	30 KM/Hr



	Risk Type	Risk Level	Coordinates	Speed Limit
10	Turn	Medium	10.91318, 77.24239	30 KM/Hr
11	Turn	Medium	10.91393, 77.26258	30 KM/Hr
12	Turn	High	10.91530, 77.26625	15 KM/Hr

## Emergency Locations

	type	name	coordinates	speed_limit	risk_level
0	hospital	Saraswathi Hospital	11.0069868, 77.071368	30 km/h	Medium
1	clinic	Dr. V. Ramakrishnan Clinic	11.0086635, 77.081108	30 km/h	Medium
2	police	Sulur Police Station	11.0248612, 77.1204842	30 km/h	Medium
3	hospital	Government Hospital, Sulur	11.0247544, 77.1228621	30 km/h	Medium
4	hospital	Balaji Hospital, Sulur	11.0277947, 77.1298133	30 km/h	Medium
6	hospital	Government Hospital Karadivavi	10.961828, 77.1943977	30 km/h	Medium

## Crowded Spots

	type	name	coordinates	speed_limit	risk_level
5	school	Kendriya Vidhyalaya School	11.0254394, 77.1609298	30 km/h	Medium

## Route Photos of Risky Spots



**Risk Type:** Blind Spot  
**Risk Level:** Blind Spot  
**Speed Limit:** 10 KM/Hr  
**Coordinates:** 11.03211, 77.07640



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.00778, 77.07085





**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 11.00773, 77.07090



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 11.01756, 77.18431



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 10.96614, 77.19246





**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 10.96628, 77.19310



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 10.90677, 77.21849





**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 10.91683, 77.22646



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 10.91602, 77.22744



**Risk Type:** Turn  
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**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 10.91318, 77.24239



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 10.91393, 77.26258





**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 10.91530, 77.26625

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