



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

IOCL Coimbatore Terminal to Harsita Fuels

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

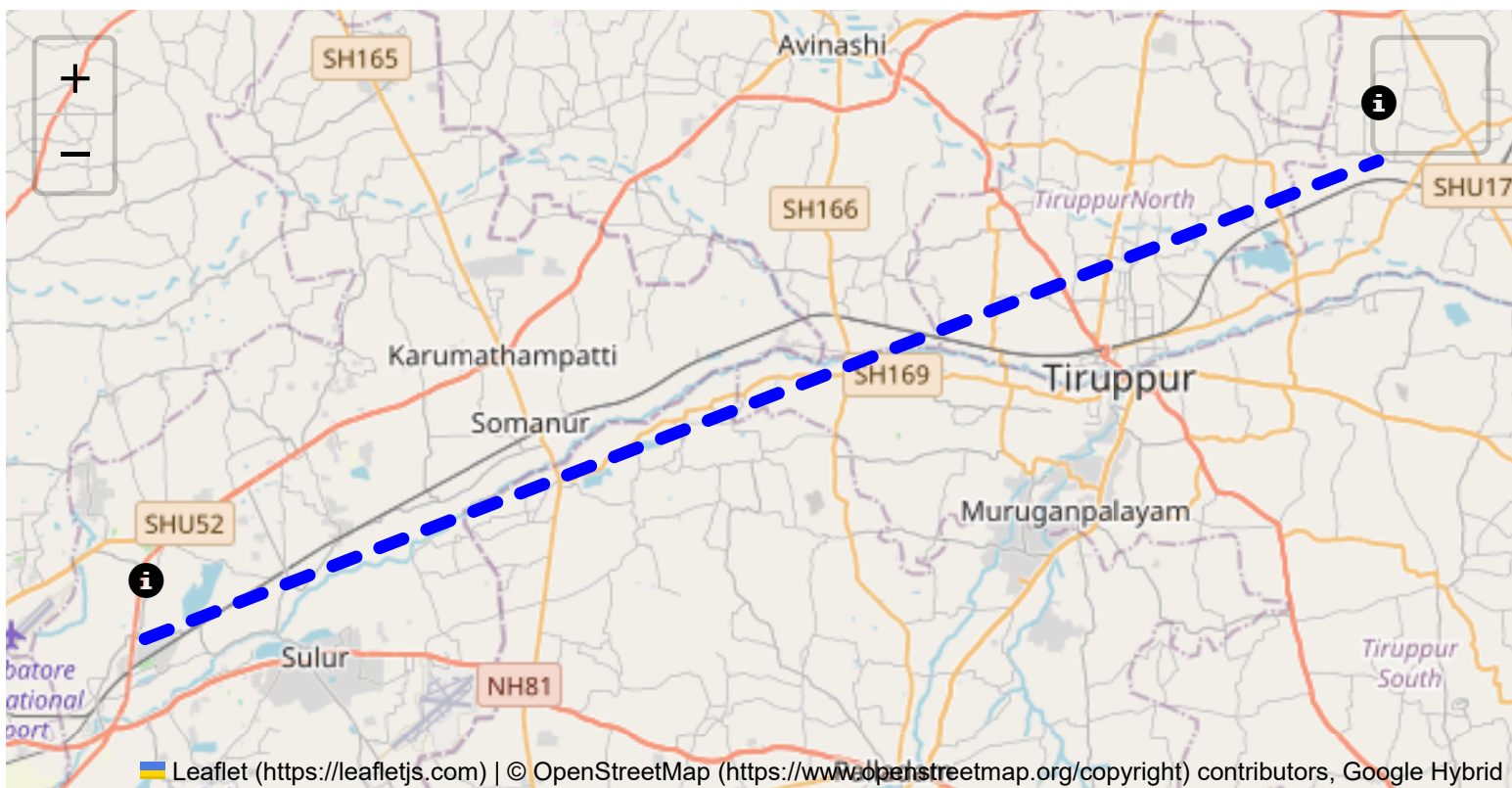
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

Journey Risk Mitigation

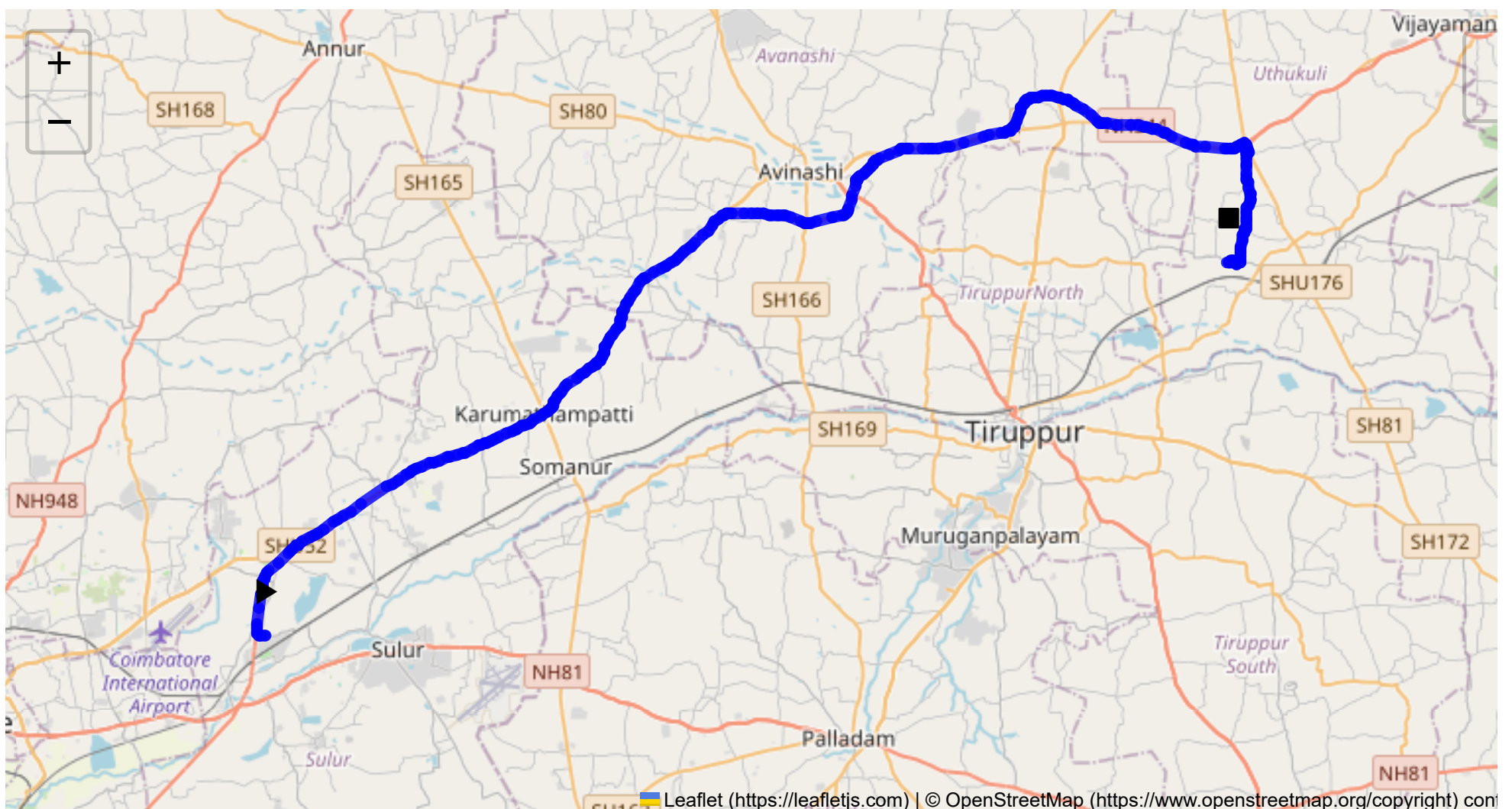
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 53.59 km
Estimated Duration: 0.9 hours
Adjusted Duration (Heavy Vehicle): 1.2 hours
Start: (11.0315, 77.0797)
End: (11.159483, 77.416152)



Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route from Athappagoundenpudur to Kavandampalayam via Coimbatore involves a combination of state highways and local roads. Starting from Athappagoundenpudur, you will drive towards the main highways, intersecting with various smaller roads that lead into Morattupalayam, covering approximately 53.59 kilometers.

2. Typical Weather Conditions and Potential Weather-Related Hazards

The region generally experiences a tropical climate. Seasonal monsoon rains from June to September could lead to water-logging and slippery road conditions, creating potential hazards for heavy vehicles. During the summer, high temperatures may cause road surface issues.

3. Analysis of Traffic Patterns

Coimbatore district sees moderate to heavy traffic, especially during peak hours (7-10 AM and 5-8 PM). Congestion-prone areas include intersections near major junctions, as well as urban centers during business hours.

4. Assessment of Road Quality and Infrastructure

While the highways are generally well-maintained, some local roads may suffer from potholes and narrow lanes, particularly in rural segments of the journey. Ongoing roadworks can disrupt traffic flow, so it is advisable to check local updates.

5. Suggestions for Alternative Routes for Emergencies

In case of major roadblocks or accidents, consider taking routes via NH544 and SH20, although these might increase travel time. Familiarize yourself with smaller local roads as alternative detours.

6. Summary of Local Regulations Affecting Hazardous Material Transport

Transport of hazardous materials is regulated by local traffic authorities. Ensure all vehicles are properly labeled, and necessary permits are obtained. Day-time transport is often recommended to comply with safety norms.

7. Overview of Historical Incidents Involving Heavy Vehicles or Hazardous Materials

There has been a record of a few incidents involving overturns or spills due to sharp turns and braking failure. Enhanced safety measures and driving at moderate speeds on rural roads are advised.

8. Environmental Considerations and Sensitive Areas

Sensitive environmental areas include sections near agricultural fields. Ensure minimal noise and pollution when passing through residential zones to comply with noise ordinances.

9. Analysis of Communication Coverage

Mobile network coverage along the main highways is generally reliable. However, some remote sections near Morattupalayam may have weak signals. Equipping vehicles with GPS and satellite phones is

advisable.

10. Estimated Emergency Response Times

In urban areas response times are typically within 20-30 minutes. In rural regions, it could extend to 45 minutes due to distance from emergency service centers. Notify local authorities in case of an incident.

12. Overall Summary of Risk Assessment

The route is moderately safe but requires caution. Adverse weather, traffic during peak hours, and local road conditions present moderate risks that can be mitigated with proper planning and adherence to safety regulations. Stay informed about road conditions and local regulations to ensure a smooth and safe journey for heavy vehicles carrying hazardous materials.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit
0	Turn	High	11.03211, 77.07640	15 KM/Hr
1	Blind Spot	Blind Spot	11.20054, 77.42223	10 KM/Hr
2	Blind Spot	Blind Spot	11.19748, 77.42349	10 KM/Hr
3	Turn	High	11.19731, 77.42240	15 KM/Hr
4	Turn	Medium	11.18019, 77.42391	30 KM/Hr
5	Turn	High	11.15926, 77.42054	15 KM/Hr
6	Turn	Medium	11.16000, 77.41801	30 KM/Hr
7	Turn	Medium	11.16005, 77.41791	30 KM/Hr
8	Turn	Medium	11.16005, 77.41765	30 KM/Hr

Emergency Locations

	type	name	coordinates	speed_limit	risk_level
0	hospital	Royal Care Hospital, Coimbatore	11.059106, 77.0893479	30 km/h	Medium
4	police	Karumathampatti Police Station	11.1093464, 77.1802095	30 km/h	Medium
7	hospital	Sri Renu Hospital	11.1990225, 77.4219937	30 km/h	Medium

Crowded Spots

	type	name	coordinates	speed_limit	risk_level
1	college	PSG Institute of Technology and Applied Research	11.0677118, 77.0945744	30 km/h	Medium
2	school	GRD-CPF Matriculation Higher Secondary School	11.0610217, 77.0933504	30 km/h	Medium
3	school	M. Nanjappa Chettiar Matriculation Hr. Sec. School	11.0715394, 77.1039133	30 km/h	Medium
5	marketplace	Thekkalur Weekly market	11.1537037, 77.2126685	30 km/h	Medium
6	marketplace	Thekalur weekly market	11.1547211, 77.2140187	30 km/h	Medium

Route Photos of Risky Spots



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

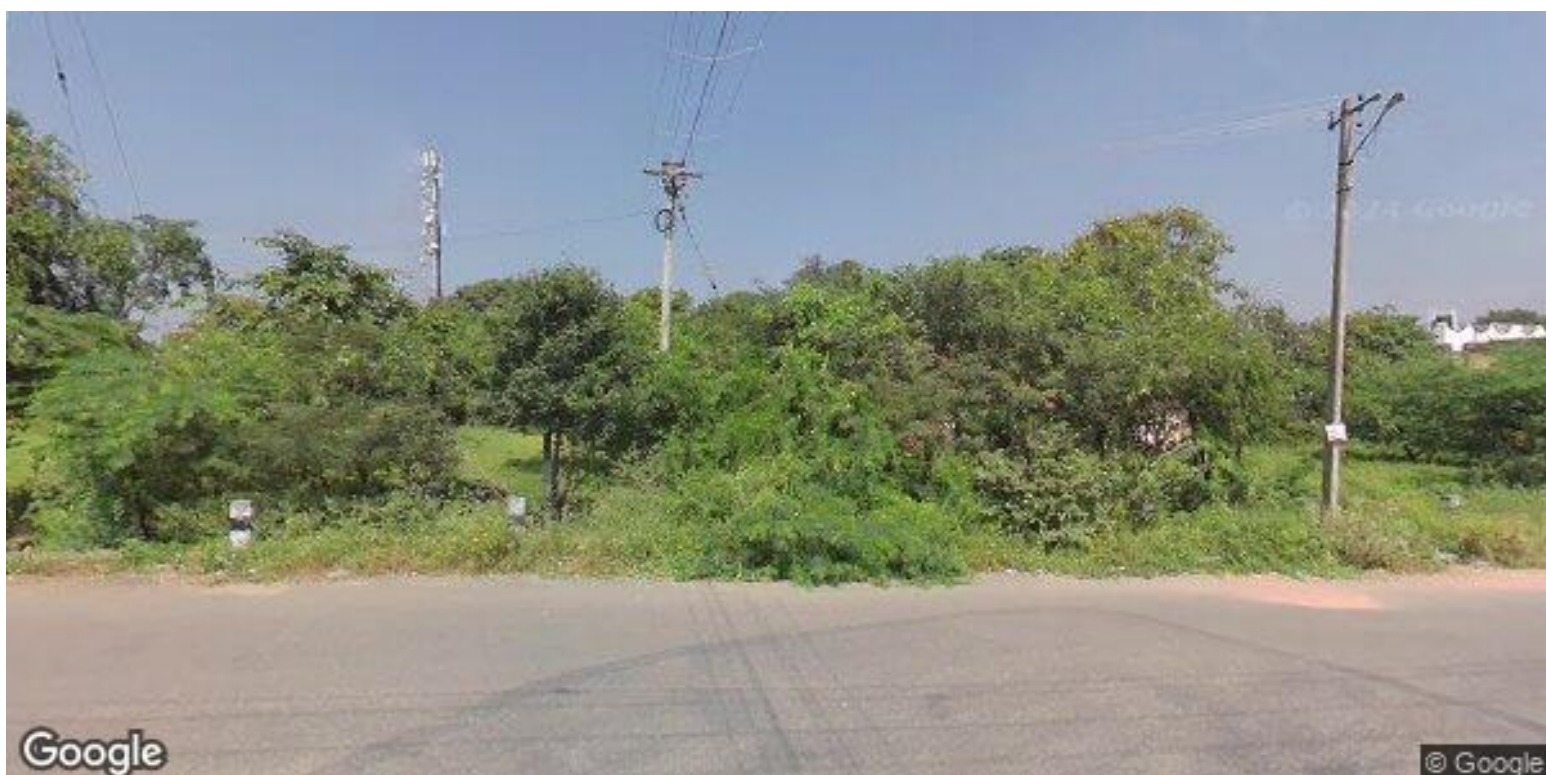
Coordinates: 11.03211, 77.07640



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Coordinates: 11.20054, 77.42223



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Coordinates: 11.19748, 77.42349



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.19731, 77.42240



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.18019, 77.42391



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.15926, 77.42054



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.16000, 77.41801



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.16005, 77.41791



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.16005, 77.41765
