



# IndianOil

## JOURNEY RISK MANAGEMENT (JRM) STUDY

### IOCL Coimbatore Terminal to Sri Muthu & Co

#### 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**

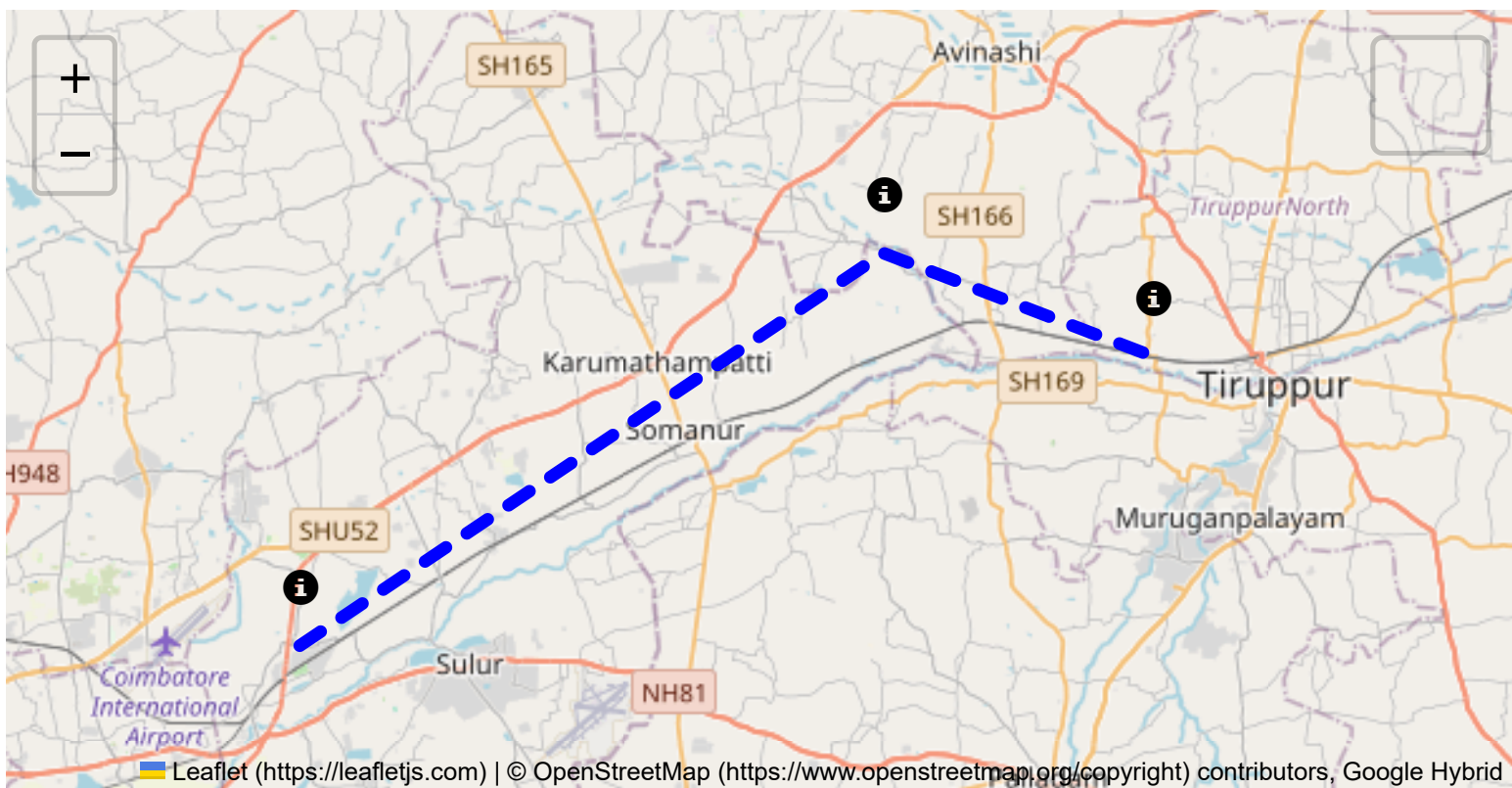
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

## **Journey Risk Mitigation**

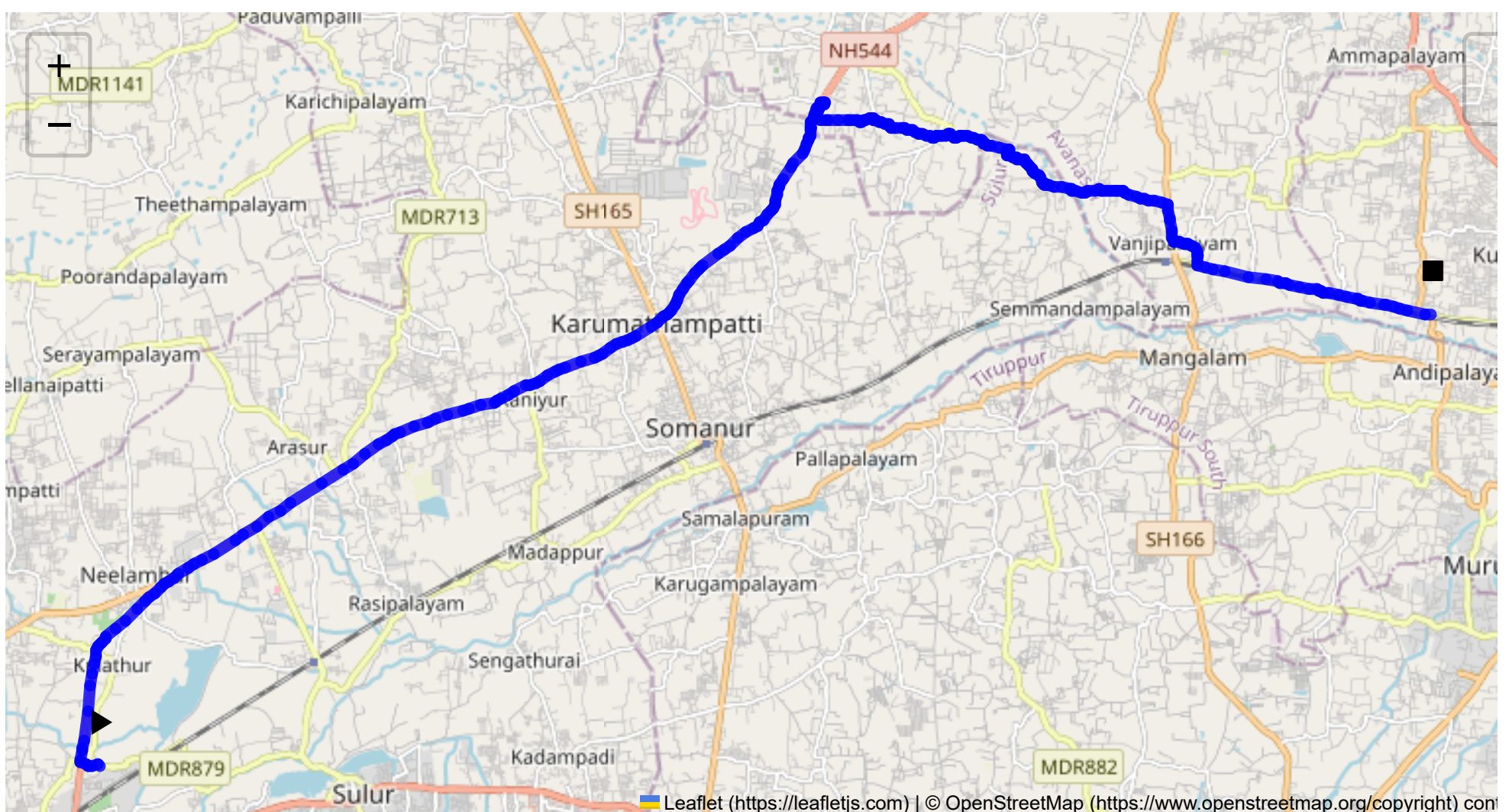
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 34.38 km**  
**Estimated Duration: 0.8 hours**  
**Adjusted Duration (Heavy Vehicle): 1.0 hours**  
**Start: (11.0315, 77.0797)**  
**End: (11.109137, 77.312355)**



## Welcome to the Journey Risk Management Study

### Route Safety Analysis Report

#### 1. Overview of the Route Map

The specified route begins at Athappagoundenpudur in Coimbatore and ends in Sirupooluvapatti, Tiruppur, passing through MDR869 and Pudupalayam. This route spans approximately 34.38 kilometers



and takes close to 0.79 hours to traverse under normal conditions for a truck carrying hazardous materials.

## 2. Weather Conditions and Potential Hazards

- **Typical Weather:** The region typically experiences hot and dry conditions, especially from March to May. Monsoons occur from June to September, which can bring heavy rainfall and potential flooding.
- **Weather-Related Hazards:** During monsoon, roads might be slippery and visibility low. Flood-prone areas could present challenges.

## 3. Traffic Patterns

- **Peak Hours:** Morning (8 AM - 10 AM) and evening (5 PM - 7 PM) are peak times due to commuter traffic.
- **Congestion Areas:** Coimbatore's outskirts and entry points to Tiruppur can experience congestion during peak hours.

## 4. Road Quality and Infrastructure

- **Road Quality:** Most of MDR869 is well-maintained, but sections may have potholes or uneven surfaces, particularly after monsoon rains.
- **Infrastructure:** Adequate signage and road markings are generally present, but some rural segments may lack sufficient lighting.

## 5. Alternative Routes for Emergencies

- In case of blockades or emergencies on MDR869, consider using the Palladam to Tiruppur route, which, while slightly longer, is a reliable alternative.

## 6. Local Regulations on Hazardous Material Transport

- Transportation of hazardous materials requires adherence to specific regulations under Indian laws, including securing permits and ensuring vehicles are properly labeled.

## 7. Historical Incidents

- There are no major recorded incidents specifically involving heavy vehicles or hazardous materials on this particular route, but general caution is advised.

## 8. Environmental Considerations

- The route passes near agricultural lands and small water bodies. Avoid spills and ensure all materials are securely contained to protect local ecosystems.

## 9. Communication Coverage

- Most of the route has good mobile coverage with occasional dead zones in rural patches near Pudupalayam. Drivers should be briefed on these areas.

## 10. Emergency Response Times

- **Urban Areas (Coimbatore and Tiruppur):** 30-45 minutes.
- **Rural Segments:** 45-60 minutes, depending on distance to nearest service.

## 11. Overall Summary of Risk Assessment

The route presents typical risks associated with a mix of urban and rural travel. Standard precautions regarding weather, peak traffic, and rural road conditions should be taken. Adequate preparation, including an assessment of alternative routes and understanding local regulations, will help mitigate risks significantly.

In conclusion, while generally safe, truck drivers should remain vigilant, particularly during adverse weather conditions and congestion periods, to ensure both their safety and the safety of others on the road.

### Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit
0	Turn	High	11.03211, 77.07640	15 KM/Hr
1	Turn	Medium	11.14084, 77.20403	30 KM/Hr
2	Turn	Medium	11.14104, 77.20393	30 KM/Hr
3	Turn	High	11.14553, 77.20583	15 KM/Hr
4	Turn	Medium	11.14553, 77.20601	30 KM/Hr
5	Turn	High	11.14531, 77.20643	15 KM/Hr
6	Blind Spot	Blind Spot	11.14274, 77.20477	10 KM/Hr
7	Turn	Medium	11.14262, 77.21491	30 KM/Hr
8	Turn	High	11.14223, 77.21518	15 KM/Hr
9	Turn	Medium	11.14157, 77.21766	30 KM/Hr
10	Turn	Medium	11.14129, 77.21785	30 KM/Hr
11	Turn	Medium	11.13940, 77.22532	30 KM/Hr
12	Turn	Medium	11.13947, 77.22564	30 KM/Hr
13	Turn	High	11.13973, 77.22595	15 KM/Hr
14	Turn	Medium	11.13957, 77.22709	30 KM/Hr
15	Turn	High	11.14002, 77.22836	15 KM/Hr

	Risk Type	Risk Level	Coordinates	Speed Limit
16	Turn	Medium	11.13932, 77.22930	30 KM/Hr
17	Turn	Medium	11.13978, 77.23004	30 KM/Hr
18	Turn	Medium	11.13727, 77.23859	30 KM/Hr
19	Turn	Medium	11.13715, 77.23867	30 KM/Hr
20	Turn	Medium	11.13649, 77.23844	30 KM/Hr
21	Turn	High	11.13638, 77.23845	15 KM/Hr
22	Turn	Medium	11.13559, 77.24127	30 KM/Hr
23	Turn	High	11.12791, 77.26660	15 KM/Hr
24	Turn	High	11.12148, 77.26743	15 KM/Hr
25	Turn	Medium	11.12047, 77.27116	30 KM/Hr
26	Turn	High	11.11747, 77.27152	15 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

## 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

## Route Photos of Risky Spots





**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 11.03211, 77.07640



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 11.14084, 77.20403





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.14104, 77.20393



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 11.14553, 77.20583



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.14553, 77.20601





**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 11.14531, 77.20643



**Risk Type:** Blind Spot

**Risk Level:** Blind Spot

**Speed Limit:** 10 KM/Hr

**Coordinates:** 11.14274, 77.20477





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.14262, 77.21491



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 11.14223, 77.21518



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.14157, 77.21766





**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 11.14129, 77.21785



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 11.13940, 77.22532





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.13947, 77.22564



**Risk Type:** Turn  
**Risk Level:** High  
**Speed Limit:** 15 KM/Hr  
**Coordinates:** 11.13973, 77.22595



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.13957, 77.22709





**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 11.14002, 77.22836



**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 11.13932, 77.22930





**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.13978, 77.23004



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.13727, 77.23859



**Risk Type:** Turn  
**Risk Level:** Medium  
**Speed Limit:** 30 KM/Hr  
**Coordinates:** 11.13715, 77.23867





**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 11.13649, 77.23844



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 11.13638, 77.23845





**Risk Type:** Turn

**Risk Level:** Medium

**Speed Limit:** 30 KM/Hr

**Coordinates:** 11.13559, 77.24127



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 11.12791, 77.26660



**Risk Type:** Turn

**Risk Level:** High

**Speed Limit:** 15 KM/Hr

**Coordinates:** 11.12148, 77.26743

