



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

IOCL Coimbatore Terminal to Shree Lalitha Oil Company

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

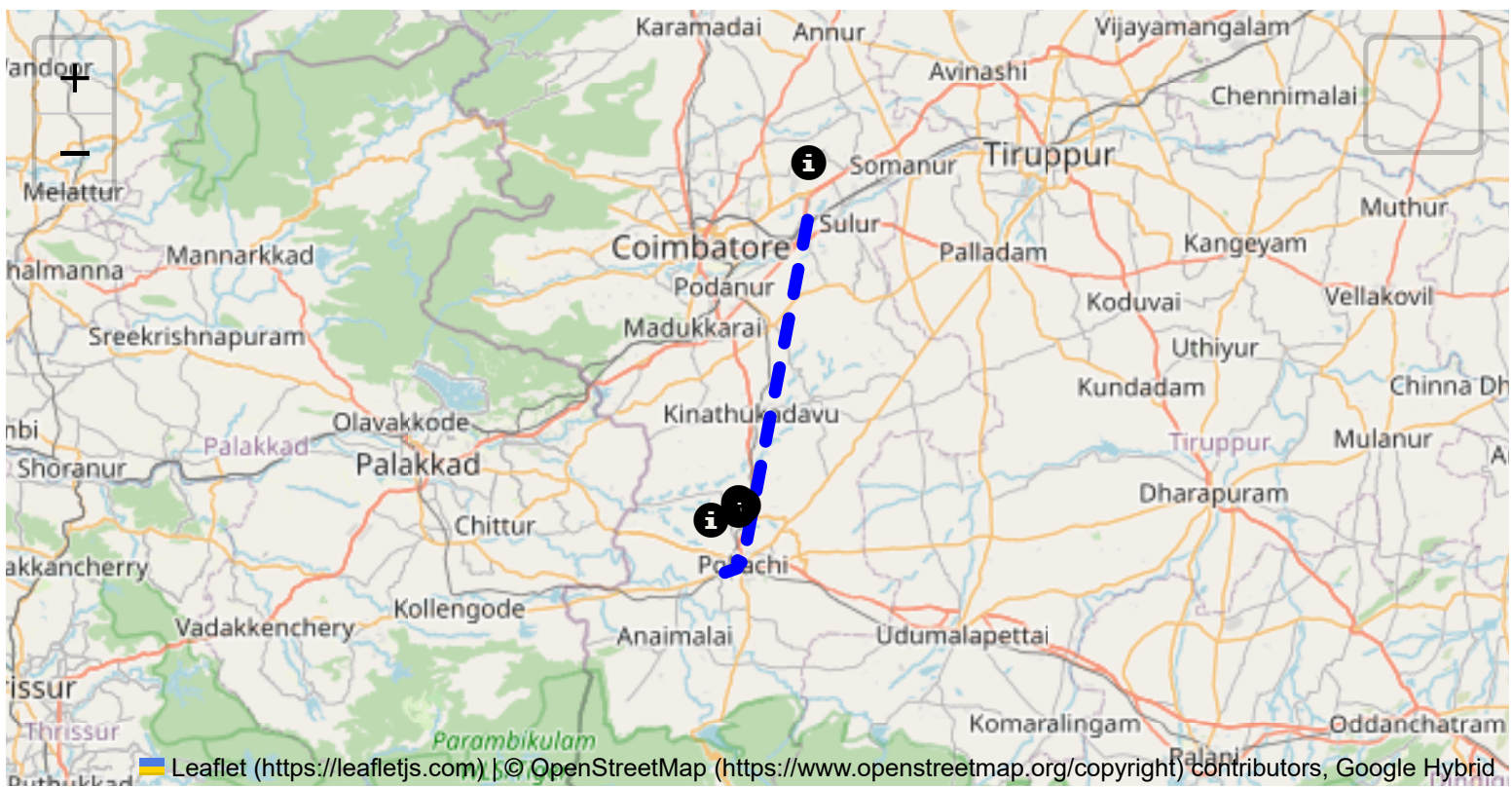
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

Journey Risk Mitigation

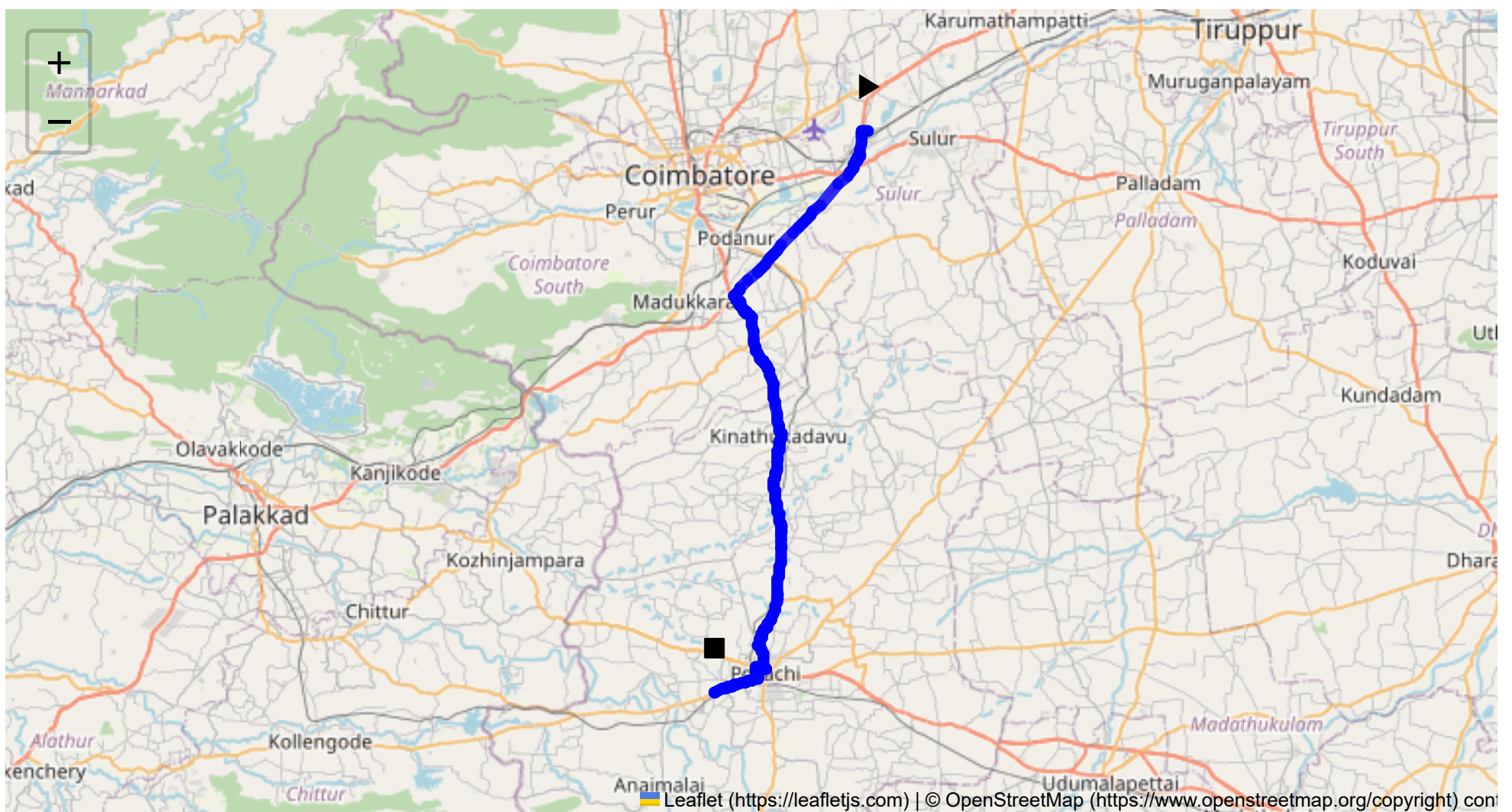
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 52.21 km
Estimated Duration: 1.2 hours
Adjusted Duration (Heavy Vehicle): 1.5 hours
Start: (11.0315, 77.0797)
End: (10.645614, 76.972145)



Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route spans from Athappagoundenpudur in Coimbatore to Zamin Uthukuli in Pollachi, traversing approximately 52.21 kilometers. It includes stops at Venkatasasa Colony, Palaghat, Raja Mill Road near Veterinary Hospital, and Market Road in Pollachi. The journey primarily involves state highways and local roads known for varying traffic conditions and infrastructure quality.

2. Typical Weather Conditions and Potential Weather-Related Hazards

In Tamil Nadu, the weather is typically tropical, with high temperatures and humidity. The monsoon season, from June to September, can bring heavy rainfall, leading to flooding and waterlogged roads, which may pose hazards such as reduced visibility, slippery surfaces, and debris on the road.

3. Analysis of Traffic Patterns

Traffic is generally moderate but can become heavy during peak hours: 8:00-10:00 AM and 5:00-7:00 PM, especially around Pollachi town. Congestion-prone areas include Pollachi's main market road and junctions near Raja Mill Road due to local businesses and heavy pedestrian traffic.

4. Assessment of Road Quality and Infrastructure

The road quality varies, with state highways generally well-maintained but smaller roads, especially in rural areas, can be narrow and uneven. Some local roads may lack sufficient signage and lighting, increasing the risk of accidents at night or in bad weather.

5. Suggestions for Alternative Routes for Emergencies

In case of emergencies, the following alternative routes can be considered:

- Diversion through NH209 for faster access to larger highways
- Local bypasses that may avoid busy town centers or flood-prone rural roads

6. Summary of Local Regulations Affecting Hazardous Material Transport

Transporting hazardous materials requires adherence to regulations including permissible routes, timing restrictions, and specific permits. Heavy fines are imposed for non-compliance, making it crucial to ensure all documentation is in order and routes are approved for hazardous transport.

7. Overview of Historical Incidents

Historical data reveals few significant incidents involving heavy vehicles; however, there have been reports of accidents due to speeding and overloaded trucks, often on smaller roads lacking proper safety barriers.

8. Environmental Considerations and Sensitive Areas

Sensitive areas include agricultural lands and residential zones. It's crucial to minimize noise and air pollution, especially in densely populated areas. Awareness of wildlife crossings or protected areas is necessary to mitigate environmental impact.

9. Analysis of Communication Coverage

The route generally has good mobile network coverage; however, certain rural stretches may encounter dead zones, particularly in less populated areas. It’s advisable to have offline maps and emergency contacts handy.

10. Estimated Emergency Response Times

Emergency response times vary but are typically quicker (15-30 minutes) in urban areas like Pollachi, whereas rural areas may experience delays of up to 45-60 minutes due to distance and road conditions.

11. Overall Summary of Risk Assessment

Overall, the route is moderately safe for heavy vehicle transport with adequate planning. Key risks include weather-related issues, traffic congestion in urban areas, and variable road quality. By following regulations, planning around peak times, and preparing for communication challenges, the risks associated with this route can be effectively managed.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit
0	Roundabout	High	10.66197, 77.00818	15 KM/Hr
1	Roundabout	High	10.66176, 77.00771	15 KM/Hr
2	Blind Spot	Blind Spot	11.03211, 77.07640	10 KM/Hr
3	Blind Spot	Blind Spot	10.91785, 76.98617	10 KM/Hr
4	Turn	Medium	10.66172, 77.00697	30 KM/Hr
5	Turn	High	10.66167, 77.00688	15 KM/Hr
6	Turn	Medium	10.66173, 77.00675	30 KM/Hr
7	Turn	Medium	10.66175, 77.00674	30 KM/Hr
8	Blind Spot	Blind Spot	10.66318, 77.00202	10 KM/Hr
9	Turn	High	10.66033, 77.00205	15 KM/Hr
10	Turn	High	10.66026, 77.00309	15 KM/Hr
11	Turn	High	10.65535, 77.00337	15 KM/Hr
12	Turn	Medium	10.65103, 76.98757	30 KM/Hr
13	Turn	Medium	10.65105, 76.98749	30 KM/Hr
14	Blind Spot	Blind Spot	10.64513, 76.97243	10 KM/Hr
15	Turn	Medium	10.64533, 76.97234	30 KM/Hr

Emergency Locations

	type	name	coordinates	speed_limit	risk_level
0	hospital	Saraswathi Hospital	11.0069868, 77.071368	30 km/h	Medium
4	hospital	Ambal Malumichampatty, Coimbatore	10.90265, 76.997586	30 km/h	Medium
11	hospital	Sri Venkateswara Kinnathukadavu	10.8241085, 77.0191884	30 km/h	Medium
12	hospital	Government Hospital, Kinathukadavu	10.82107, 77.017406	30 km/h	Medium
13	hospital	The Pollachi Cardiac Center	10.6742907, 77.0081305	30 km/h	Medium
14	hospital	K.G.M. Hospital Paavhai Women's Cente, Pollachi	10.67023, 77.007418	30 km/h	Medium
15	hospital	Arathana Hospital	10.6682257, 77.0070174	30 km/h	Medium
16	clinic	Andavar Clinic and Nursing Home	10.6679726, 77.0081641	30 km/h	Medium
17	clinic	A.S.D. Nursing Home	10.6665361, 77.0084792	30 km/h	Medium
18	clinic	Neuro Poly Clinic, Pollachi	10.6662216, 77.0073506	30 km/h	Medium
19	hospital	Vasan Eye Care Hospital, Pollachi	10.6643938, 77.0057119	30 km/h	Medium
20	hospital	Siva Meds Multispeciality Hospital	10.6633006, 77.0100774	30 km/h	Medium
21	clinic	Ram Poly Clinic	10.6627299, 77.0090626	30 km/h	Medium
22	hospital	MRS Hospital & Fertility centre	10.6647489, 77.0050326	30 km/h	Medium
23	clinic	Prabhu Poly Clinic	10.6627285, 77.0096353	30 km/h	Medium
24	hospital	Prabhu Hospital, Pc Pollachi	10.66269, 77.009684	30 km/h	Medium
25	hospital	Kowsalya Medical Centre, Pollachi	10.66299, 77.010025	30 km/h	Medium
26	hospital	Thirumalai Hospital	10.6650579, 77.005872	30 km/h	Medium
27	clinic	Rc Poly Clinic, Pollachi	10.66442, 77.005669	30 km/h	Medium

	type	name	coordinates	speed_limit	risk_level
28	hospital	Pills Hospital	10.66419, 77.010376	30 km/h	Medium
29	clinic	Sindhia Ortho Clinic	10.6634521, 77.0105284	30 km/h	Medium
30	hospital	Sakthi Hospital, Pollachi	10.6629552, 77.0106019	30 km/h	Medium
31	hospital	JP Hospital, Pollachi	10.66024, 77.0049	30 km/h	Medium
32	hospital	K.M. Hospitals	10.6625561, 77.003421	30 km/h	Medium
33	hospital	Avm Hospital- Pollachi	10.66242, 77.0030365	30 km/h	Medium
34	hospital	Mcv Memorial Ent Trust Hospital	10.6627918, 76.9995756	30 km/h	Medium
35	hospital	S.N. Hospital, Pollachi	10.659567, 77.0005675	30 km/h	Medium

Crowded Spots

	type	name	coordinates	speed_limit	risk_level
1	school	Kadri Mills Higher Secondary School	11.0058181, 77.0664118	30 km/h	Medium
2	college	Karpagam Polytechnic College	10.9185202, 76.99131	30 km/h	Medium
3	college	Karpagam Academy of Higher Education	10.9175939, 76.9882369	30 km/h	Medium
5	college	DJ Academy of Design and Management	10.8740175, 77.0042594	30 km/h	Medium
6	college	Coimbatore Marine College	10.8627423, 77.0107491	30 km/h	Medium
7	school	Sasi Creative School for Architecture	10.8613583, 77.0118878	30 km/h	Medium
8	school	Vivek Vidyalaya Matric Hr. Sec. School	10.8451346, 77.015443	30 km/h	Medium
9	school	Vivek Vidya Mandir	10.8448467, 77.01614	30 km/h	Medium
10	college	VSB College of Engineering Technical Campus=Coimbatore	10.8430943, 77.0180336	30 km/h	Medium

	type	name	coordinates	speed_limit	risk_level
36	school	Shenbagam Matriculation Higher Secondary School	10.6492585, 76.9829288	30 km/h	Medium
37	school	Nachiar Vidyalam Higher Secondary School	10.6481192, 76.980423	30 km/h	Medium
38	school	Panchayat Union Elementary School	10.650858, 76.9794118	30 km/h	Medium

Route Photos of Risky Spots



Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 10.66197, 77.00818



Risk Type: Roundabout

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 10.66176, 77.00771



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 11.03211, 77.07640



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 10.91785, 76.98617



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 10.66172, 77.00697



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 10.66167, 77.00688



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 10.66173, 77.00675



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 10.66175, 77.00674



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 10.66318, 77.00202



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 10.66033, 77.00205



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 10.66026, 77.00309



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 10.65535, 77.00337



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 10.65103, 76.98757



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 10.65105, 76.98749



Risk Type: Blind Spot
Risk Level: Blind Spot
Speed Limit: 10 KM/Hr
Coordinates: 10.64513, 76.97243



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 10.64533, 76.97234
