



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

IOCL Coimbatore Terminal to S S 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

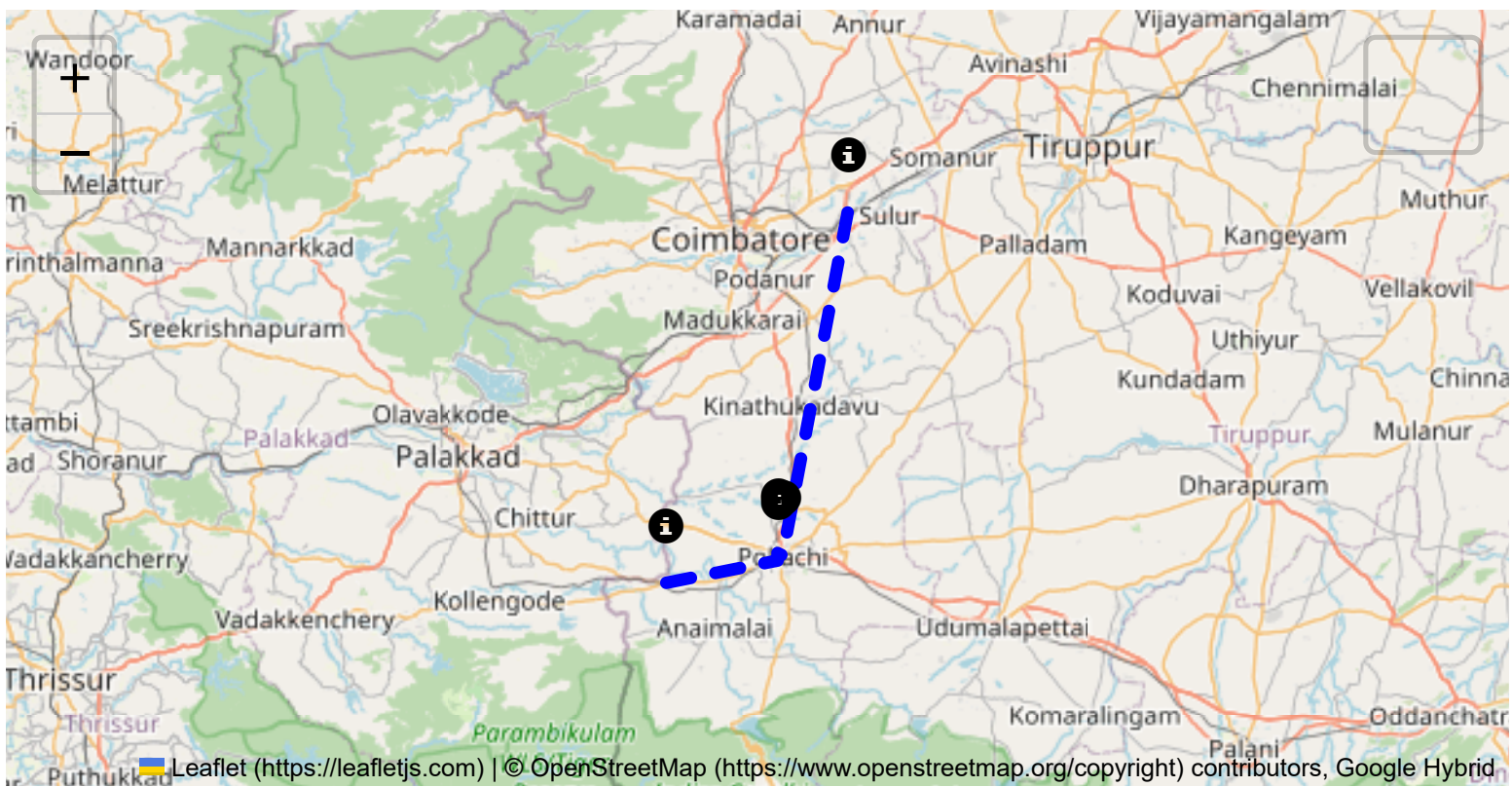
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

Journey Risk Mitigation

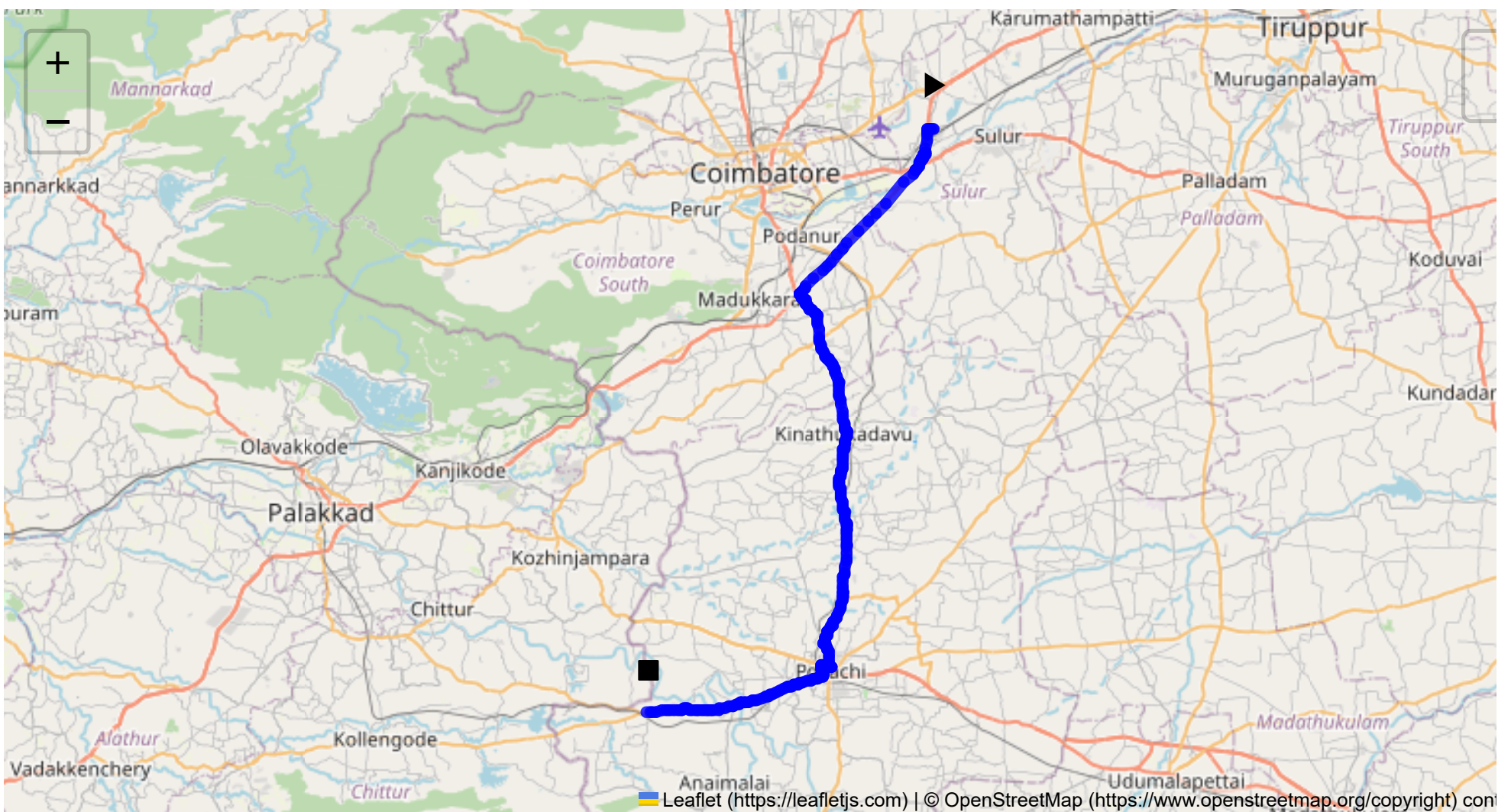
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 62.57 km
Estimated Duration: 1.4 hours
Adjusted Duration (Heavy Vehicle): 1.8 hours
Start: (11.0315, 77.0797)
End: (10.630157, 76.880051)



Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route begins at Athappagoundenpudur in Coimbatore, passing through various points in Pollachi before ending at Valanthayamaram. This route travels predominantly southwest and includes both urban and rural segments. The journey covers about 62.57 kilometers.

2. Typical Weather Conditions and Potential Weather-Related Hazards

- **Weather Conditions:** The region experiences a tropical climate with significant rainfall during the monsoon (June to September) and moderate to high temperatures year-round.
- **Potential Hazards:** Possible hazards include reduced visibility and slippery roads during the monsoon season. Flash flooding in low-lying areas may also occur, creating potential route blockages.

3. Analysis of Traffic Patterns

- **Peak Hours:** Typically, peak traffic occurs during morning (7:30-9:30 AM) and evening (4:30-7:00 PM) commute times.
- **Congestion-Prone Areas:** Expect congestion especially in urban hubs like Pollachi, near major intersections or market areas such as Raja Mill Road and near the veterinary hospital.

4. Assessment of Road Quality and Infrastructure

- **Road Quality:** Generally, the road quality from Coimbatore to Pollachi is good on NH209. Some rural stretches might have potholes and narrow passages.
- **Infrastructure:** Reliable infrastructure in urban centers with marked roads and signage. Rural areas may have fewer emergency facilities.

5. Suggestions for Alternative Routes for Emergencies

In case of road blockages or emergencies, the alternative route through NH544 towards Kinathukadavu and reaching Pollachi via State Highway 19 could be considered, although it might extend travel time.

6. Summary of Local Regulations Affecting Hazardous Material Transport

- Transport of hazardous materials is regulated with requirements for proper labeling and securing of cargo.
- Movement during certain times (e.g., peak hours) may be restricted.
- Special permits might be necessary, and adherence to speed limits is crucial.

7. Overview of Historical Incidents

There are no specific well-documented incidents along this route involving heavy vehicles or hazardous materials, but potential risks in densely trafficked urban areas like Pollachi persist.

8. Environmental Considerations and Sensitive Areas

- **Sensitive Areas:** Forested regions and agricultural lands surround parts of this route. Special care should be taken to prevent spills or emissions.

- **Environmental Concerns:** Avoidance of pollution and maintaining noise levels is important near residential and agricultural zones.

9. Analysis of Communication Coverage

- **Potential Dead Zones:** Sporadic cellular network issues may occur in remote rural segments between Pollachi and Valanthayamaram. Urban areas generally maintain strong coverage.

10. Estimated Emergency Response Times

- **Urban Sections (Pollachi Area):** Approximately 15-25 minutes.
- **Rural Sections:** Can extend to 45 minutes or more depending on accessibility and severity of the situation.

11. Overall Summary of Risk Assessment

The route presents moderate risks primarily due to weather conditions, traffic congestion, and potential communication lapses in rural areas. Through careful planning and adherence to regulations, risks can be effectively managed.

Conclusion: Drivers carrying hazardous materials should be vigilant about weather alerts, follow traffic patterns, and have contingency plans for alternative routes. Familiarity with local regulations and continuous communication are crucial for a safe journey.

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	Blind Spot	Blind Spot	10.66318, 77.00202	10 KM/Hr
7	Turn	High	10.66033, 77.00205	15 KM/Hr
8	Turn	High	10.66026, 77.00309	15 KM/Hr
9	Turn	High	10.65535, 77.00337	15 KM/Hr
10	Turn	Medium	10.65103, 76.98757	30 KM/Hr
11	Turn	Medium	10.65105, 76.98749	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
39	hospital	Aalva Hospital	10.6378336, 76.950131	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

	type	name	coordinates	speed_limit	risk_level
10	college	VSB College of Engineering Technical Campus=Coimbatore	10.8430943, 77.0180336	30 km/h	Medium
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: 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
