



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO PARIYUR CORPORATION

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

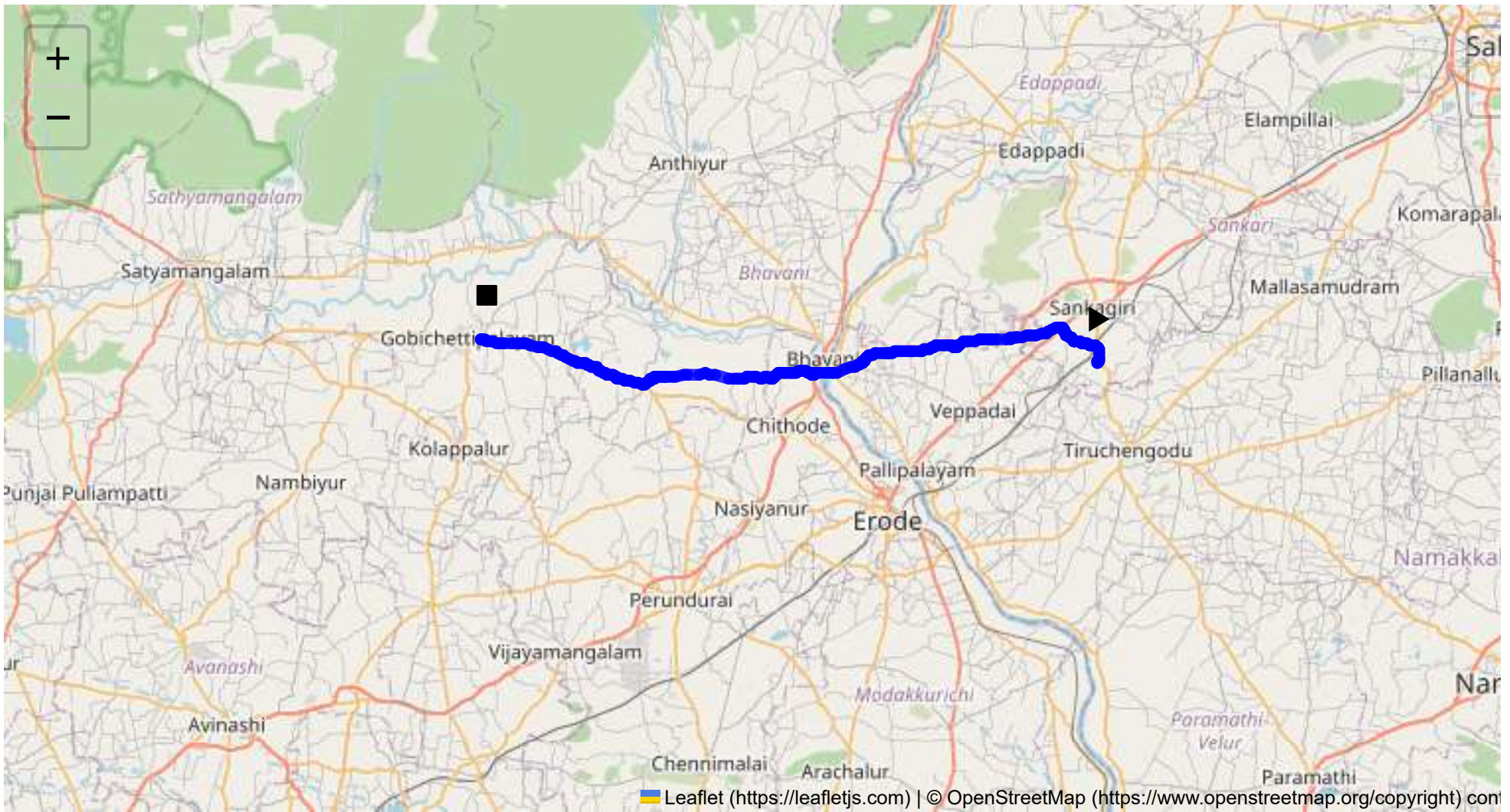
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 52.01 km
Estimated Duration: 1.1 hours
Adjusted Duration (Heavy Vehicle): 1.4 hours
Start: (11.4381, 77.8734)
End: (11.454458, 77.446543)



Risk Spots

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
0	Turn	11.43822, 77.87348	15 KM/Hr	0.01 km
1	Turn	11.43961, 77.87341	15 KM/Hr	0.14 km
2	Turn	11.44029, 77.87544	15 KM/Hr	0.31 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
3	Turn	11.44893, 77.87413	15 KM/Hr	1.36 km
4	Turn	11.45350, 77.85700	15 KM/Hr	3.34 km
5	Turn	11.45845, 77.85141	15 KM/Hr	4.12 km
6	Turn	11.46046, 77.85037	15 KM/Hr	4.37 km
7	Turn	11.46303, 77.84945	15 KM/Hr	4.66 km
8	Turn	11.45542, 77.81725	15 KM/Hr	8.38 km
9	Blind Spot	11.45634, 77.81673	10 KM/Hr	8.52 km
10	Blind Spot	11.44530, 77.72783	10 KM/Hr	18.67 km
11	Turn	11.43001, 77.67575	15 KM/Hr	24.89 km
12	Turn	11.43273, 77.67018	15 KM/Hr	25.60 km
13	Turn	11.43346, 77.66700	15 KM/Hr	25.98 km
14	Turn	11.43225, 77.66561	15 KM/Hr	26.17 km
15	Turn	11.42837, 77.56935	15 KM/Hr	36.97 km
16	Turn	11.42821, 77.56543	15 KM/Hr	37.39 km
17	Turn	11.42707, 77.56407	15 KM/Hr	37.61 km
18	Turn	11.42329, 77.55798	15 KM/Hr	38.45 km
19	Blind Spot	11.45462, 77.44375	10 KM/Hr	51.59 km
20	Blind Spot	11.45420, 77.44634	10 KM/Hr	51.83 km

Emergency Services

	type	name	coordinates	side_of_road
1	hospital	Government Hospital	11.4525596, 77.7749426	Opposite Side
3	hospital	Dhanvantri Multi Speciality Hospital	11.451362, 77.766602	Opposite Side
4	hospital	Dhanvanthri Hospital	11.4496712, 77.7593772	Opposite Side
5	hospital	J.K.K. Trust Hospital	11.4445841, 77.7307962	Driver's Side
7	hospital	Shri Sathyanarayana Hospital	11.4291297, 77.6913408	Driver's Side
9	hospital	Thanish Siddha Hospital	11.430003, 77.674964	Driver's Side
10	clinic	Harshitha Clinic	11.4313207, 77.674718	Opposite Side
11	hospital	Sri Kaalangi Siddhar Mooligai Vaithiya Nilayam	11.432369, 77.674894	Opposite Side
12	clinic	G.K Clinic	11.4297244, 77.6749715	Driver's Side
13	hospital	PST Mahaa Hospital	11.4312903, 77.6585751	Driver's Side
14	hospital	Dharun Hospital	11.4223638, 77.5597735	Driver's Side
15	hospital	Dr. Ramaswamy Hospital	11.4249065, 77.5535658	Opposite Side

	type	name	coordinates	side_of_road
16	hospital	Dakshin Trauma Centre	11.454593, 77.4461819	Opposite Side
17	hospital	Dakshin Hospital	11.4546301, 77.445905	Opposite Side
18	hospital	Sri Varahi Herbal Research Centre and Hospital	11.4539333, 77.4427438	Driver's Side

Rest Stops

	type	name	coordinates	side_of_road
0	fuel	SLOA Bunk - Unit II	11.4543854, 77.8052665	Driver's Side
2	restaurant	Canteen	11.4478386, 77.7705441	Driver's Side
6	fuel	Reliance	11.4325168, 77.6912865	Opposite Side
8	fuel	Indian Oil	11.4321177, 77.6765153	Opposite Side

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route extends approximately 52 kilometers across a rural setting in Tamil Nadu, spanning various small towns and villages. Departing from Sangagiri and reaching Gobichettipalayam, it passes through locations like Puthur, Padaiveedu, Service Road at CPVG+V49, Sevagoundanur, and Kavindapadi. It mostly utilizes national and state highways, featuring sections along smaller roads connecting these areas.

2. Typical Weather Conditions and Potential Weather-Related Hazards

Tropical climate prevails, with hot summers, significant monsoon rains from June to September, and mild winters. Monsoon rains can cause road flooding and slippery conditions, especially in low-lying areas or where drainage is poor.

3. Analysis of Traffic Patterns

Traffic is generally moderate, with increased congestion in towns like Kavindapadi and Gobichettipalayam. Peak hours typically occur between 8:00-10:00 AM and 5:00-7:00 PM. Market days or local festivities can further disrupt traffic patterns.

4. Assessment of Road Quality and Infrastructure

The roads vary from well-paved highways to less maintained local roads. Sections along national highways are generally in good condition, but smaller roadways may have potholes or narrow passages, posing challenges for larger vehicles.

5. Suggestions for Alternative Routes for Emergencies

In the event of severe congestion or road blockages, consider using NH544 from Sangagiri towards Perundurai and then connecting to SH15 towards Gobichettipalayam. While longer, it avoids smaller, potentially more congested roads.

6. Summary of Local Regulations Affecting Hazardous Material Transport

Transport of hazardous materials is subject to strict regulations, including specific permits. Compliance with the Motor Vehicle Act and adherence to designated transport timings are required. Avoid transporting hazardous loads during peak public hours or at night without explicit permission.

7. Overview of Historical Incidents

There have been occasional instances of accidents involving heavy vehicles, primarily due to poor road conditions or driver error. However, specific large-scale accidents involving hazardous materials in the immediate area are not extensively documented.

8. Environmental Considerations and Sensitive Areas

The route traverses agricultural lands and small populated areas. Care should be taken to prevent spillage of hazardous materials, which could impact local agriculture. Noise pollution should be minimized near residential areas.

9. Analysis of Communication Coverage

Mobile coverage is generally available, but rural stretches, especially near Padaiveedu and Sevagoundanur, may experience weak signals or dead zones. Reliability improves near towns and larger highways.

10. Estimated Emergency Response Times

Emergency response times vary with proximity to urban centers. In towns, expect response within 15-20 minutes. Rural segments may experience delays, potentially extending response to 30-40 minutes due to transportation and accessibility challenges.

11. Overall Summary of Risk Assessment

The primary concerns for this route include monsoon-related road conditions, variable road quality, and traffic congestion in urban centers. Regulatory compliance for transporting hazardous materials is crucial. While the risk of major incidents is moderate, preparedness for adverse weather and route flexibility can mitigate potential hazards. Ensuring robust communication tools and emergency protocols is recommended for safe passage through this route.

Route Photos of Risky Spots



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 0.31 km

Coordinates: 11.44029, 77.87544



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 1.36 km

Coordinates: 11.44893, 77.87413



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 3.34 km

Coordinates: 11.45350, 77.85700



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.12 km

Coordinates: 11.45845, 77.85141



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.37 km

Coordinates: 11.46046, 77.85037



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.66 km

Coordinates: 11.46303, 77.84945



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 8.38 km

Coordinates: 11.45542, 77.81725



Risk Type: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 8.52 km
Coordinates: 11.45634, 77.81673



Risk Type: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 18.67 km
Coordinates: 11.44530, 77.72783



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 24.89 km
Coordinates: 11.43001, 77.67575



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 25.60 km
Coordinates: 11.43273, 77.67018



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 25.98 km
Coordinates: 11.43346, 77.66700



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 26.17 km

Coordinates: 11.43225, 77.66561



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 36.97 km

Coordinates: 11.42837, 77.56935



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 37.39 km

Coordinates: 11.42821, 77.56543



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 37.61 km

Coordinates: 11.42707, 77.56407



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 38.45 km

Coordinates: 11.42329, 77.55798



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 51.59 km

Coordinates: 11.45462, 77.44375



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 51.83 km

Coordinates: 11.45420, 77.44634

