



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO MUTHU CORPORATION UNIT II

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

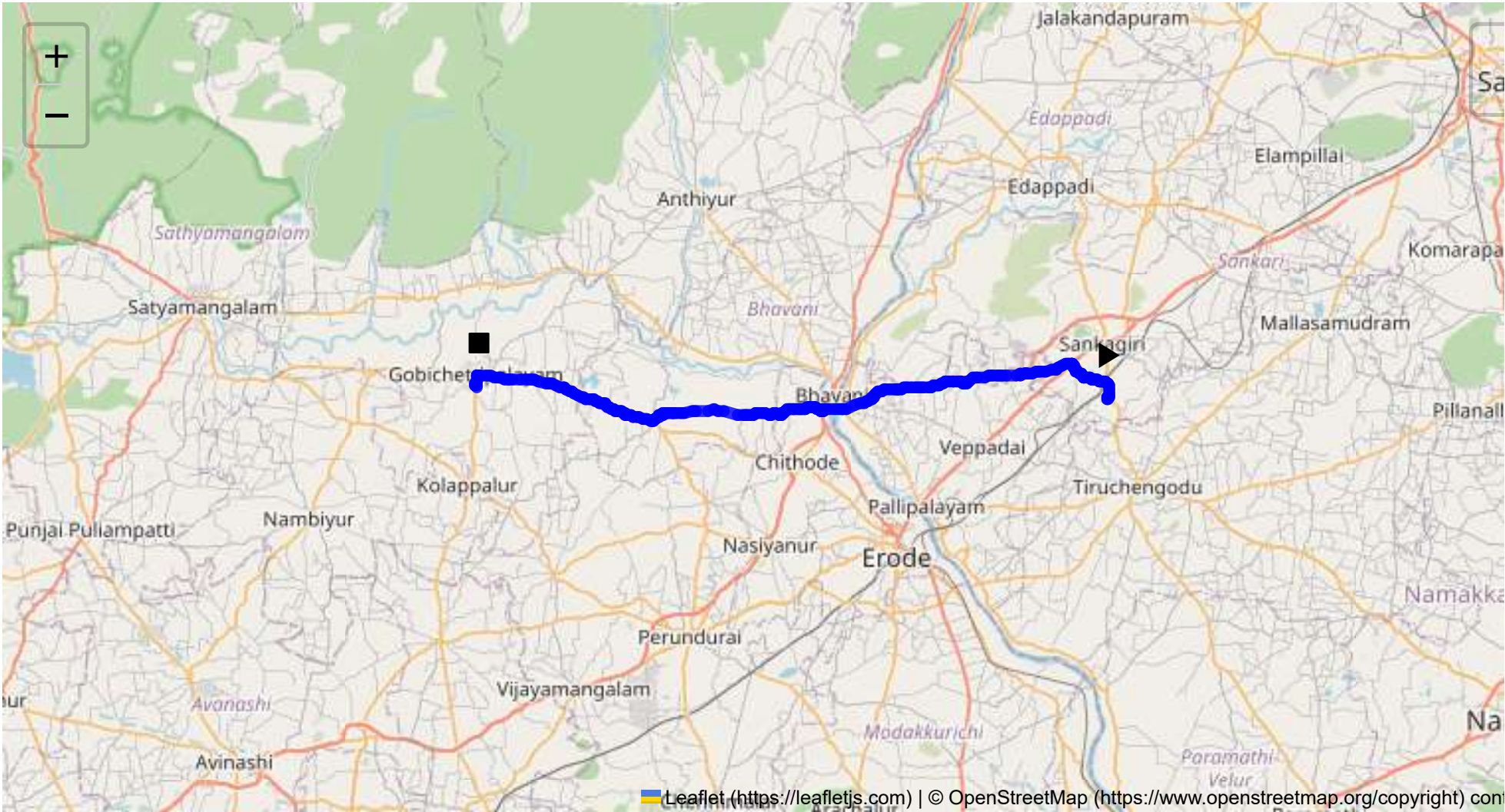
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 53.57 km
Estimated Duration: 1.2 hours
Adjusted Duration (Heavy Vehicle): 1.4 hours
Start: (11.4381, 77.8734)
End: (11.446198, 77.435504)



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	Turn	11.45490, 77.43549	15 KM/Hr	52.40 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
16	hospital	Dakshin Trauma Centre	11.454593, 77.4461819	Opposite Side

	type	name	coordinates	side_of_road
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
19	clinic	Germen Homeopathy Clinic	11.4536305, 77.4394692	Driver's Side
20	hospital	JP Hospital	11.454765, 77.438257	Driver's Side
21	hospital	KKS Hospital	11.4551792, 77.4392927	Opposite Side
22	clinic	Anandhan Clinic	11.4548037, 77.4349074	Opposite Side
23	hospital	Kumaran Hospital	11.4533971, 77.4349621	Opposite Side
24	hospital	Siranjeeve Hospitals	11.453132, 77.4344382	Opposite Side
25	hospital	Ramachandran Hospital	11.452242, 77.434641	Opposite Side
26	hospital	Dr. Rathinasamy Hospital	11.457562, 77.4327752	Opposite Side
27	hospital	Gobi Neuro Mind Care	11.4548344, 77.434649	Opposite Side
28	hospital	Jesus Hospital	11.4511405, 77.4355211	Driver's Side
29	clinic	AG Kids Clinic	11.4501348, 77.4349865	Opposite Side
30	hospital	Seetha Lakshmi Hospital	11.4474948, 77.4341288	Opposite Side
31	clinic	GK Siddha Ayurveda Clinic	11.445915, 77.433649	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

Route Safety Analysis Report

1. Overview of the Route Map

The route begins at Sangagiri, Tamil Nadu (CVQF+23W) and proceeds through several towns, including Puthur, Padaiveedu, Sevagoundanur, and Kavindapadi, before reaching Gobichettipalayam in Tamil Nadu. The primary roads utilized include state highways and main roads such as Bhavani Main Road. This

approximately 53.57-kilometer route is typically traveled in around 1.16 hours by heavy vehicles carrying hazardous material.

2. Weather Conditions and Hazards

Tamil Nadu generally experiences a tropical climate. From June to September, the southwest monsoon can cause heavy rainfall, leading to potential road flooding and reduced visibility. Furthermore, the months from October to December witness the northeast monsoon, which could also result in adverse weather conditions impacting driving safety.

3. Traffic Patterns

- **Peak Hours:** Major towns like Gobichettipalayam and Sangagiri are likely to have increased traffic congestion during typical rush hours (8-10 AM and 5-8 PM).
- **Congestion Prone Areas:** Entry and exit points to towns and marketplaces, particularly in Sangagiri and Gobichettipalayam.

4. Road Quality and Infrastructure

The state highways and main roads along this route are generally well-maintained, but expect varying road qualities with occasional potholes or uneven surfaces. Regular infrastructure updates may cause short-term construction or diversions.

5. Alternative Routes for Emergencies

In emergencies, local roads and alternative state highways can serve as bypasses, particularly:

- Sangagiri to Erode Road for emergencies.
- Secondary rural roads connecting back to the main route beyond major towns.

6. Local Regulations on Hazardous Materials

Tamil Nadu has strict regulations concerning the transport of hazardous materials. Ensure compliance with state transportation regulations, securing all necessary permits and safety equipment.

7. Historical Incidents

No significant recorded incidents involving heavy vehicles or hazardous materials specifically on this route segment, but general caution is advised due to increased risks during monsoonal weather.

8. Environmental Considerations

- **Sensitive Areas:** The route passes through agricultural regions hence any spillage or contamination could have severe local environmental impacts.

9. Communication Coverage

Generally robust mobile network coverage is present, except in rural stretches between small villages, where there may be brief communication lapses.

10. Emergency Response Times

Emergency response times are estimated at:

- **Sangagiri to Gobichettipalayam:** 15 to 30 minutes in urban areas.
- **Rural segments:** Response times can extend to 45 minutes due to distance.

11. Overall Summary of Risk Assessment

This route presents a moderate level of risk for transporting hazardous materials primarily due to the variable weather conditions and rural stretches with lesser medical facilities. Regular monitoring of weather updates and ensuring all communication and navigation devices are functional is imperative. Planning travel during off-peak hours and ensuring periodic rest is advisable to mitigate fatigue in drivers and ensure compliance with safety standards.

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
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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: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 52.40 km

Coordinates: 11.45490, 77.43549

