



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO RAJA RATHNAM 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

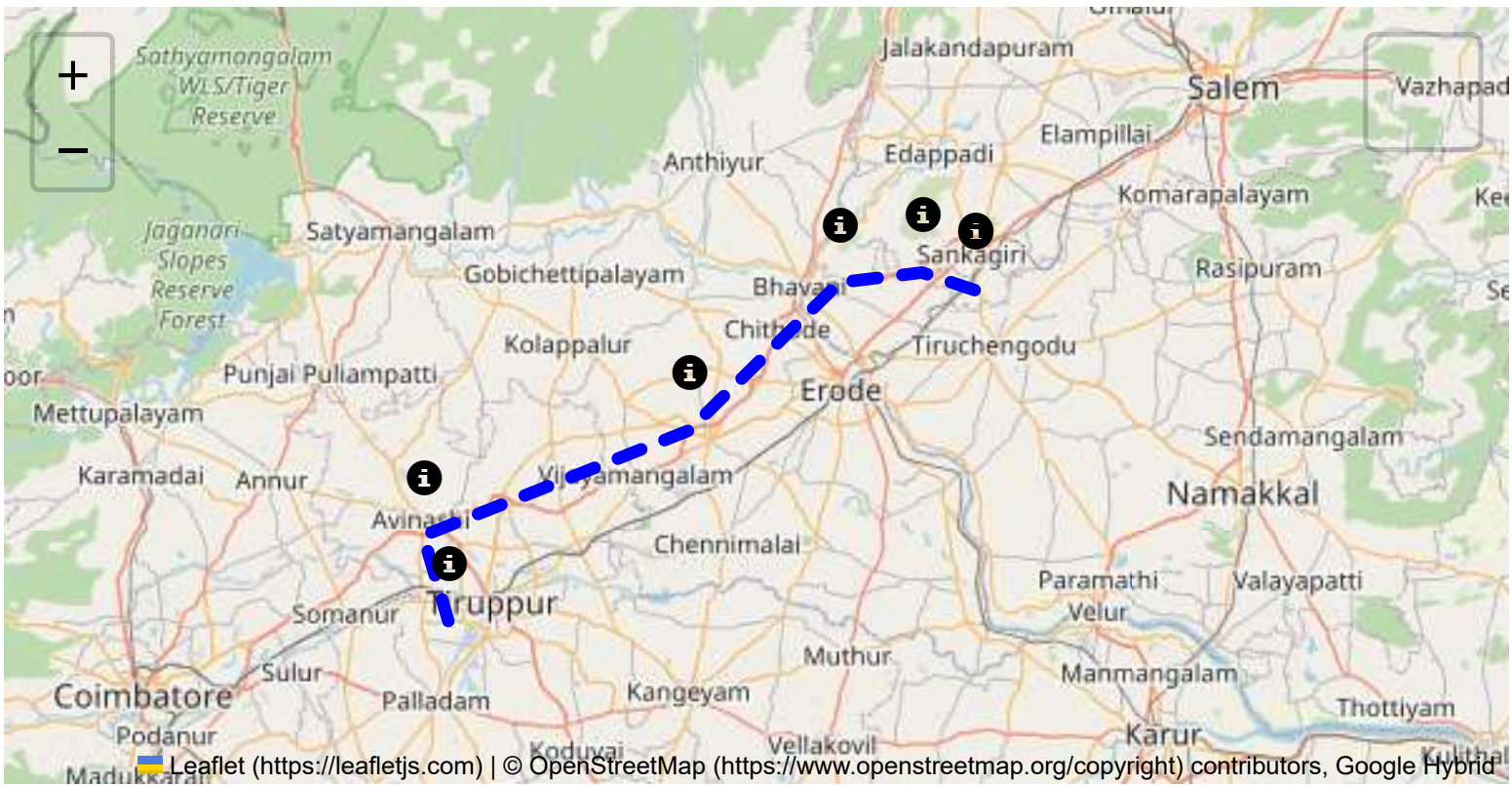
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

Journey Risk Mitigation

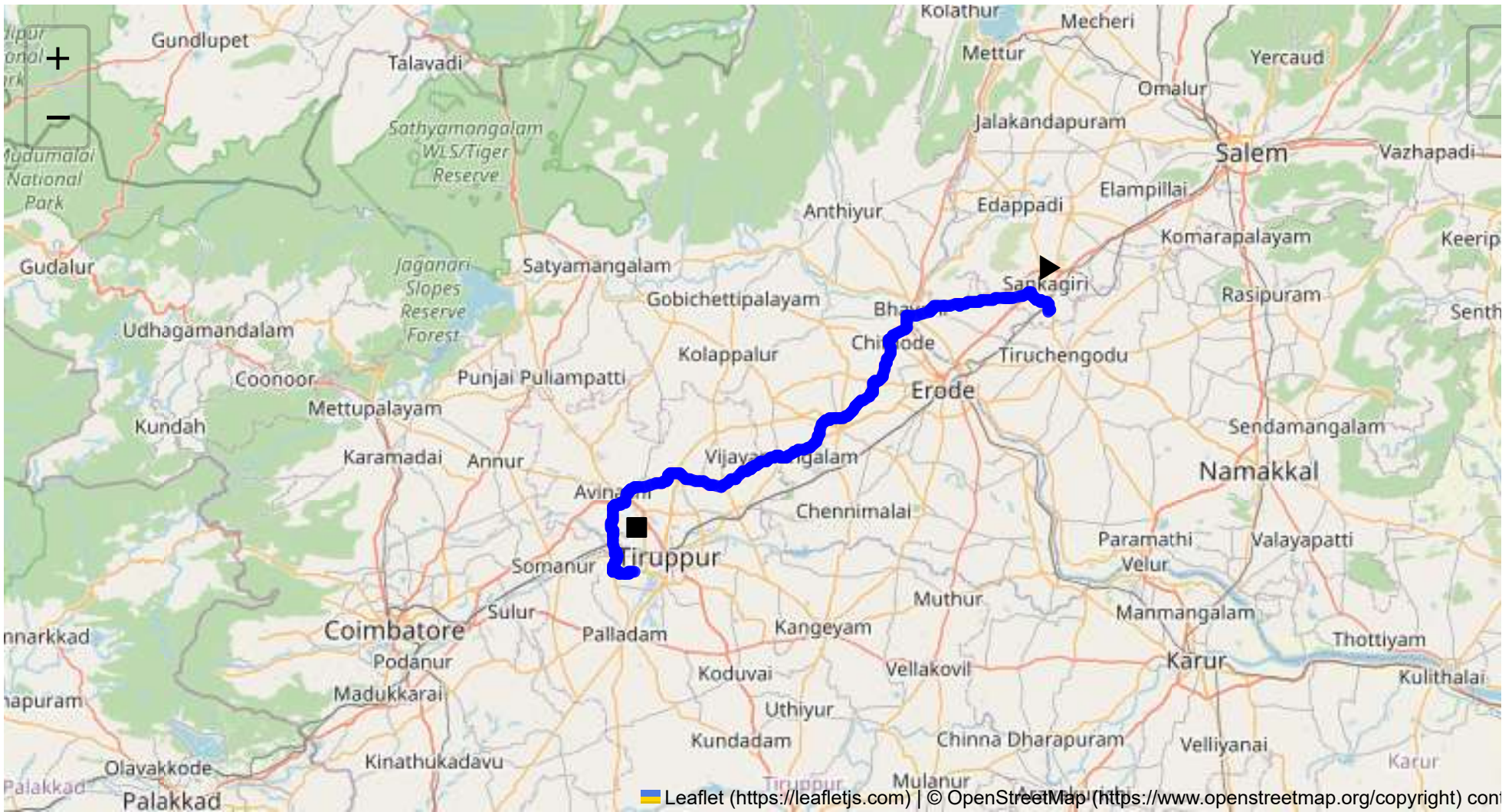
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 100.93 km
Estimated Duration: 2.0 hours
Adjusted Duration (Heavy Vehicle): 2.4 hours
Start: (11.4381, 77.8734)
End: (11.081754, 77.29644)



Risk Spots

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
1	Turn	11.43961, 77.87341	15 KM/Hr	0.08 km
2	Turn	11.44029, 77.87544	15 KM/Hr	0.28 km
3	Turn	11.44893, 77.87413	15 KM/Hr	1.29 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
4	Turn	11.45350, 77.85700	15 KM/Hr	3.28 km
5	Turn	11.45845, 77.85141	15 KM/Hr	4.10 km
6	Turn	11.46303, 77.84945	15 KM/Hr	4.64 km
7	Turn	11.45542, 77.81725	15 KM/Hr	8.35 km
8	Blind Spot	11.45634, 77.81673	10 KM/Hr	8.49 km
9	Turn	11.45081, 77.77034	15 KM/Hr	13.81 km
10	Turn	11.43192, 77.67803	15 KM/Hr	24.40 km
11	Turn	11.18785, 77.28659	15 KM/Hr	83.57 km
0	Roundabout	11.17250, 77.26863	15 KM/Hr	86.60 km
12	Turn	11.14580, 77.26363	15 KM/Hr	89.65 km
13	Turn	11.14029, 77.26520	15 KM/Hr	90.23 km
14	Turn	11.10890, 77.27134	15 KM/Hr	93.78 km
15	Turn	11.10628, 77.27042	15 KM/Hr	94.21 km
16	Turn	11.10249, 77.27147	15 KM/Hr	94.66 km
17	Turn	11.08036, 77.26776	15 KM/Hr	97.21 km
18	Turn	11.08063, 77.27250	15 KM/Hr	97.73 km
19	Turn	11.07990, 77.27587	15 KM/Hr	98.08 km
20	Turn	11.07952, 77.28248	15 KM/Hr	98.85 km
21	Turn	11.07878, 77.28748	15 KM/Hr	99.46 km

Emergency Services

	type	name	coordinates	side_of_road
2	hospital	Dhanvantri Multi Speciality Hospital	11.451362, 77.766602	Opposite Side
3	hospital	Dhanvanthri Hospital	11.4496712, 77.7593772	Opposite Side
4	hospital	J.K.K. Trust Hospital	11.4445841, 77.7307962	Driver's Side
5	hospital	Shri Sathyanarayana Hospital	11.4291297, 77.6913408	Driver's Side
8	hospital	Thanish Siddha Hospital	11.430003, 77.674964	Opposite Side
9	clinic	Harshitha Clinic	11.4313207, 77.674718	Opposite Side
10	hospital	Sri Kaalangi Siddhar Mooligai Vaithiya Nilayam	11.432369, 77.674894	Opposite Side
11	clinic	G.K Clinic	11.4297244, 77.6749715	Opposite Side
13	clinic	Erode Cancer Centre	11.3732, 77.649152	Opposite Side
27	hospital	Irt Hospital	11.2803603, 77.5644118	Driver's Side
31	hospital	Gen Siddha Hospital	11.2375033, 77.5059797	Opposite Side

	type	name	coordinates	side_of_road
32	hospital	Vijayamangalm Government Hospital	11.2382827, 77.501687	Opposite Side
33	hospital	Dr. N Viswanathan Hospital	11.2412783, 77.5005502	Opposite Side
35	clinic	P.M. Clinic	11.2281078, 77.4647296	Opposite Side
38	hospital	Sri Renu Hospital	11.1990225, 77.4219937	Driver's Side

Rest Stops

	type	name	coordinates	side_of_road
0	fuel	SLOA Bunk - Unit II	11.4543854, 77.8052665	Driver's Side
1	restaurant	Canteen	11.4478386, 77.7705441	Driver's Side
6	fuel	Reliance	11.4325168, 77.6912865	Opposite Side
7	fuel	Indian Oil	11.4321177, 77.6765153	Opposite Side
12	fuel	KR Fuels - Auto LPG	11.4127737, 77.6747462	Driver's Side
14	hotel	Athithi cafe	11.3756993, 77.6516401	Driver's Side
15	restaurant	Athithi Cafe	11.3756705, 77.6516565	Driver's Side
16	restaurant	Canteen	11.3725755, 77.6466465	Opposite Side
17	restaurant	Kumki Restaurant	11.3523614, 77.644608	Driver's Side
18	parking	Kumki Restaurant	11.352414, 77.644492	Driver's Side
19	restaurant	Paradise Biriyani	11.3291744, 77.6297833	Driver's Side
20	hotel	Hotel Annachi	11.3020259, 77.600017	Opposite Side
21	hotel	Adayar Ananda Bhavan(a2b)	11.3018451, 77.599909	Opposite Side
22	restaurant	Ambur Star Biriyani	11.3017372, 77.5999546	Opposite Side
23	parking	NHAI parking	11.3030168, 77.6009269	Opposite Side
24	restaurant	Arukkaniyammal Mess	11.2982771, 77.5967424	Opposite Side
25	fuel	HP	11.2909675, 77.5815262	Driver's Side
26	cafe	Backery and Cafe	11.2893987, 77.565338	Opposite Side
28	fuel	Reliance	11.2575595, 77.5511245	Driver's Side
29	fuel	Bharat Petroleum	11.255444, 77.5457729	Opposite Side
30	fuel	Auto LPG	11.2523222, 77.5400243	Opposite Side
34	fuel	HP Gas Station	11.239607, 77.4949754	Driver's Side
36	restaurant	MDS restaurant	11.2058137, 77.4295619	Opposite Side
37	restaurant	Hotel Sree Anandha Bhavan	11.2058482, 77.4297017	Opposite Side

	type	name	coordinates	side_of_road
39	restaurant	Shri Sai Krishna	11.1993912, 77.3207179	Driver's Side
40	fuel	HP bunk	11.1946674, 77.2943298	Driver's Side
41	cafe	Tea Shop and Bakery	11.0859935, 77.2677	Opposite Side

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

This route extends approximately 100.93 kilometers from Sangagiri to Tiruppur via Puthur, Padaiveedu, Perundurai, and Avinashi. It follows a combination of state highways and service roads, leading primarily through rural and semi-urban areas in Tamil Nadu, India.

2. Typical Weather Conditions and Potential Weather-Related Hazards

The region typically experiences a tropical climate with high temperatures, particularly from March to June. Monsoon rains occur from October to December, potentially leading to waterlogging and reduced visibility. These conditions can make road surfaces slippery and increase the risk of hydroplaning.

3. Analysis of Traffic Patterns

- Peak Hours:** Morning and evening rush hours, usually from 8:00 AM to 10:00 AM and 5:00 PM to 8:00 PM.
- Congestion-Prone Areas:**
 - Around major junctions in Perundurai and Avinashi.
 - Bhavani Main Road in Padaiveedu may experience slow-moving traffic, particularly during market hours.

4. Assessment of Road Quality and Infrastructure

- Sangagiri to Puthur:** Largely in good condition but watch for occasional potholes.
- Padaiveedu to Perundurai:** Well-maintained highways with proper signage; local service roads may have uneven surfaces.
- Perundurai Bypass to Avinashi:** Generally good, but be cautious near construction zones or ongoing roadwork.
- Avinashi to Tiruppur:** Recently upgraded sections provide smooth travel, though some narrower stretches may cause delays.

5. Suggestions for Alternative Routes for Emergencies

- Via Erode:** From Puthur, consider diverting to Erode and then taking a southern bypass to Perundurai.

- **State Highways:** Use alternative state highways connecting smaller towns to reach Tiruppur via a less congested route.

6. Summary of Local Regulations Affecting Hazardous Material Transport

- Permits are required for the transport of hazardous materials. Adhere to Tamil Nadu State Pollution Control Board guidelines.
- Dangerous goods must be acknowledged at designated check posts.

7. Overview of Historical Incidents Involving Heavy Vehicles or Hazardous Materials

- Historical data reveals occasional accidents due to mechanical failures or driver fatigue. Incidents involving hazardous materials have been rare but can lead to significant environmental and safety concerns.

8. Environmental Considerations and Sensitive Areas

- Ecologically sensitive spots include agricultural zones and water bodies around Puthur and Perundurai. Minimize potential spillage risks, especially near these regions.

9. Analysis of Communication Coverage

- **Potential Dead Zones:** Intermittent coverage issues may arise in remote stretches near Padaiveedu and sections of the Perundurai Bypass.
- Generally strong network signals are available through more urban segments.

10. Estimated Emergency Response Times for Different Route Segments

- **Sangagiri to Puthur:** Approx. 20-30 minutes.
- **Padaiveedu to Perundurai:** Around 40 minutes, with longer times during peak traffic.
- **Perundurai to Tiruppur:** Emergency services from Avinashi can take around 30 minutes.

11. Overall Summary of Risk Assessment

This route presents moderate risk levels, with potential hazards mainly due to weather and road conditions. Traffic congestion in peri-urban stretches and construction near Perundurai and Avinashi warrant caution. Emergency plans should account for varying response times and identify secure stops along the route for potential breakdowns. Adherence to local regulations remains critical, particularly for hazardous material transport, to mitigate risks associated with traffic and environmental sensitivity. Proper preparation can ensure a safer and more efficient journey.

Route Photos of Risky Spots



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 0.28 km

Coordinates: 11.44029, 77.87544



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 1.29 km

Coordinates: 11.44893, 77.87413



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 3.28 km

Coordinates: 11.45350, 77.85700



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.10 km

Coordinates: 11.45845, 77.85141



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.64 km

Coordinates: 11.46303, 77.84945



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 8.35 km

Coordinates: 11.45542, 77.81725



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 8.49 km

Coordinates: 11.45634, 77.81673



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 13.81 km

Coordinates: 11.45081, 77.77034



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 24.40 km

Coordinates: 11.43192, 77.67803



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 83.57 km

Coordinates: 11.18785, 77.28659



Risk Type: Roundabout

Speed Limit: 15 KM/Hr

Distance from Start: 86.60 km

Coordinates: 11.17250, 77.26863



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 89.65 km

Coordinates: 11.14580, 77.26363



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 90.23 km

Coordinates: 11.14029, 77.26520



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 93.78 km

Coordinates: 11.10890, 77.27134



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 94.21 km

Coordinates: 11.10628, 77.27042



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 94.66 km

Coordinates: 11.10249, 77.27147



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 97.21 km

Coordinates: 11.08036, 77.26776



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 97.73 km

Coordinates: 11.08063, 77.27250



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 98.08 km

Coordinates: 11.07990, 77.27587



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 98.85 km

Coordinates: 11.07952, 77.28248



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 99.46 km

Coordinates: 11.07878, 77.28748

[Download Interactive Map](#)