



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO COCO PERICHIPLYM ADH.M S P 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

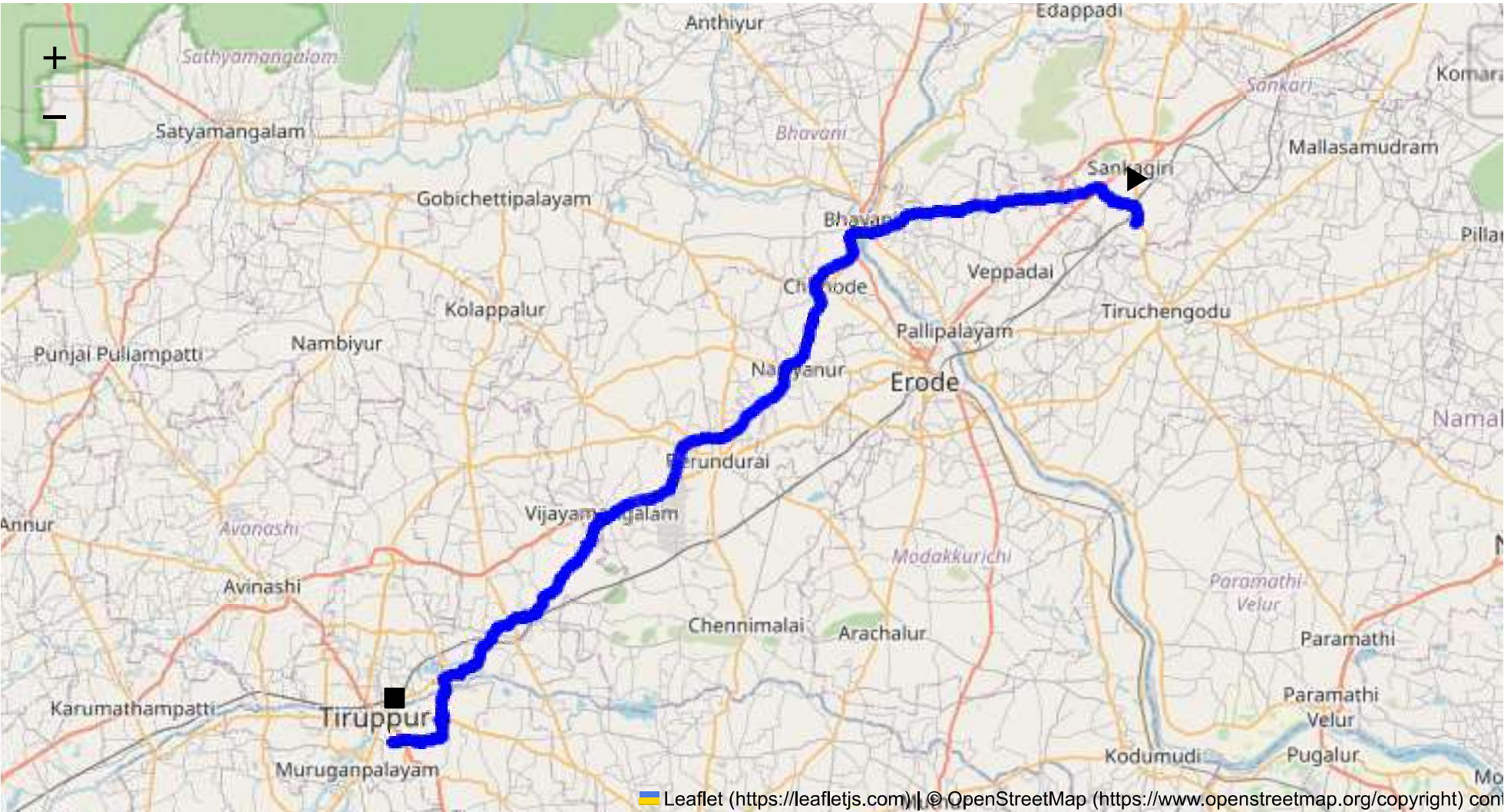
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 84.69 km
Estimated Duration: 1.8 hours
Adjusted Duration (Heavy Vehicle): 2.3 hours
Start: (11.4381, 77.8734)
End: (11.0840371, 77.35809175)



Risk Spots

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
0	Turn	11.43968, 77.87345	15 KM/Hr	0.09 km
1	Turn	11.44024, 77.87528	15 KM/Hr	0.33 km
2	Turn	11.44898, 77.87410	15 KM/Hr	1.29 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
3	Turn	11.45352, 77.85698	15 KM/Hr	3.27 km
4	Turn	11.45847, 77.85140	15 KM/Hr	4.10 km
5	Turn	11.46303, 77.84945	15 KM/Hr	4.64 km
6	Turn	11.44965, 77.77565	15 KM/Hr	12.89 km
7	Turn	11.44953, 77.77344	15 KM/Hr	13.16 km
8	Turn	11.43165, 77.67734	15 KM/Hr	24.20 km
9	Turn	11.23724, 77.50686	15 KM/Hr	56.26 km
10	Blind Spot	11.23686, 77.50216	10 KM/Hr	56.73 km
11	Turn	11.23396, 77.50105	15 KM/Hr	57.14 km
12	Turn	11.23287, 77.49934	15 KM/Hr	57.36 km
13	Turn	11.18407, 77.46330	15 KM/Hr	64.20 km
14	Turn	11.18273, 77.46224	15 KM/Hr	64.43 km
15	Turn	11.17851, 77.46169	15 KM/Hr	64.95 km
16	Turn	11.17521, 77.45978	15 KM/Hr	65.33 km
17	Turn	11.17368, 77.45730	15 KM/Hr	65.71 km
18	Turn	11.17111, 77.45547	15 KM/Hr	66.06 km
19	Turn	11.16959, 77.44396	15 KM/Hr	67.25 km
20	Turn	11.16381, 77.43700	15 KM/Hr	68.27 km
21	Turn	11.16280, 77.43139	15 KM/Hr	68.82 km
22	Turn	11.15217, 77.42418	15 KM/Hr	70.30 km
23	Turn	11.15134, 77.42300	15 KM/Hr	70.53 km
24	Turn	11.15023, 77.42247	15 KM/Hr	70.68 km
25	Turn	11.14925, 77.42065	15 KM/Hr	70.91 km
26	Turn	11.13848, 77.41611	15 KM/Hr	72.21 km
27	Turn	11.13578, 77.41299	15 KM/Hr	72.70 km
28	Turn	11.12989, 77.40302	15 KM/Hr	74.02 km
29	Turn	11.12775, 77.39347	15 KM/Hr	75.04 km
30	Turn	11.11846, 77.39460	15 KM/Hr	76.15 km
31	Turn	11.10276, 77.39199	15 KM/Hr	78.00 km
32	Blind Spot	11.09882, 77.39312	10 KM/Hr	78.42 km
33	Turn	11.09898, 77.39028	15 KM/Hr	78.83 km
34	Turn	11.09456, 77.39233	15 KM/Hr	79.35 km
35	Turn	11.08759, 77.39166	15 KM/Hr	80.14 km
36	Turn	11.08531, 77.38413	15 KM/Hr	81.01 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
37	Turn	11.08597, 77.38095	15 KM/Hr	81.33 km
38	Turn	11.08536, 77.37919	15 KM/Hr	81.59 km
39	Turn	11.08448, 77.37842	15 KM/Hr	81.74 km
40	Turn	11.08510, 77.37541	15 KM/Hr	82.01 km
41	Turn	11.08463, 77.37378	15 KM/Hr	82.21 km
42	Turn	11.08497, 77.37234	15 KM/Hr	82.38 km
43	Turn	11.08604, 77.36377	15 KM/Hr	83.37 km
44	Blind Spot	11.08377, 77.35780	10 KM/Hr	84.22 km

Emergency Services

	type	name	coordinates	side_of_road
1	hospital	Dhanvanthri Hospital	11.4496712, 77.7593772	Opposite Side
2	hospital	J.K.K. Trust Hospital	11.4445841, 77.7307962	Driver's Side
3	hospital	Shri Sathyanarayana Hospital	11.4291297, 77.6913408	Driver's Side
5	hospital	Thanish Siddha Hospital	11.430003, 77.674964	Opposite Side
6	clinic	Harshitha Clinic	11.4313207, 77.674718	Opposite Side
7	hospital	Sri Kaalangi Siddhar Mooligai Vaithiya Nilayam	11.432369, 77.674894	Opposite Side
8	clinic	G.K Clinic	11.4297244, 77.6749715	Opposite Side
11	clinic	Erode Cancer Centre	11.3732, 77.649152	Opposite Side
24	hospital	Irt Hospital	11.2803603, 77.5644118	Driver's Side
28	hospital	Gen Siddha Hospital	11.2375033, 77.5059797	Opposite Side
29	hospital	Vijayamangalm Government Hospital	11.2382827, 77.501687	Opposite Side
30	hospital	Aravind Eye Care Hospital	11.1729469, 77.4574467	Driver's Side
31	clinic	Sri Maha Annai Clinic	11.1707162, 77.4536498	Driver's Side
32	hospital	Ram Doctor Hospital	11.1709391, 77.4532808	Opposite Side
33	clinic	Kumaran Clinic	11.1697553, 77.451543	Driver's Side
34	hospital	Sri Aravindhar Hospital	11.1697756, 77.4448276	Driver's Side
35	clinic	Dr. Raja Clinic	11.1278464, 77.3927768	Opposite Side
36	clinic	D K Clinic General & Ortho	11.1117864, 77.3906835	Opposite Side
38	hospital	Tiruppur, Government Hospital	11.083827, 77.3634797	Driver's Side

Rest Stops

	type	name	coordinates	side_of_road
0	fuel	SLOA Bunk - Unit II	11.4543854, 77.8052665	Driver's Side
4	fuel	Reliance	11.4325168, 77.6912865	Opposite Side
9	fuel	Indian Oil	11.4321177, 77.6765153	Opposite Side
10	fuel	KR Fuels - Auto LPG	11.4127737, 77.6747462	Driver's Side
12	hotel	Athithi cafe	11.3756993, 77.6516401	Driver's Side
13	restaurant	Athithi Cafe	11.3756705, 77.6516565	Driver's Side
14	restaurant	Kumki Restaurant	11.3523614, 77.644608	Driver's Side
15	parking	Kumki Restaurant	11.352414, 77.644492	Driver's Side
16	restaurant	Paradise Biriyani	11.3291744, 77.6297833	Driver's Side
17	parking	NHAI parking	11.3030168, 77.6009269	Opposite Side
18	hotel	Hotel Annachi	11.3020259, 77.600017	Opposite Side
19	hotel	Adayar Ananda Bhavan(a2b)	11.3018451, 77.599909	Opposite Side
20	restaurant	Ambur Star Biriyani	11.3017372, 77.5999546	Opposite Side
21	restaurant	Arukkaniyammal Mess	11.2982771, 77.5967424	Opposite Side
22	fuel	HP	11.2909675, 77.5815262	Driver's Side
23	cafe	Backery and Cafe	11.2893987, 77.565338	Opposite Side
25	fuel	Reliance	11.2575595, 77.5511245	Driver's Side
26	fuel	Bharat Petroleum	11.255444, 77.5457729	Opposite Side
27	fuel	Auto LPG	11.2523222, 77.5400243	Opposite Side
37	fuel	HP	11.0982774, 77.3944396	Driver's Side

Welcome to the Journey Risk Management Study

To provide a comprehensive safety analysis of the route from CVQF+23W, Sangagiri to 39M5+J7Q, Gopal Nagar, I will consider the various aspects that can affect truck travel, especially when carrying hazardous materials. Here's an overview based on available data and typical regional conditions:

1. Overview of the Route Map:
- The route spans approximately 84.69 kilometers through Tamil Nadu, primarily along regional highways and some state roads. It is essential to follow GPS navigation tailored for truck routes to avoid restricted or unsuitable roads.
2. Typical Weather Conditions and Potential Weather-Related Hazards:
- Tamil Nadu experiences a tropical climate. The southwest monsoon (June to September) and northeast monsoon (October to December) can bring heavy rainfall and lead to flooding, which

increases the risk of reduced visibility and road damage. Dry seasons could lead to road dust and visibility issues.

3. Traffic Patterns and Peak Hours:

- Sangagiri and parts of Coimbatore (near the destination) can see moderate to high traffic, especially during peak hours (8-10 AM and 5-8 PM). Congested areas generally include town centers and junctions where local traffic mixes with highway traffic.

4. Assessment of Road Quality and Infrastructure:

- Primary roads and highways in this region are generally well-maintained, but secondary roads and some rural stretches might have potholes and uneven surfaces. Regular inspections for roadwork updates are recommended.

5. Suggestions for Alternative Routes for Emergencies:

- Alternative routes could include bypassing congested areas by taking nearby state highways, although this might increase travel time. Having a flexible GPS setup is crucial for dynamically switching routes in case of roadblocks or accidents.

6. Summary of Local Regulations Affecting Hazardous Material Transport:

- Tamil Nadu requires permits for the transportation of hazardous materials. Time restrictions often apply, prohibiting such transport in densely populated areas during peak traffic hours. Regular checks for updated transport laws are advised.

7. Overview of Historical Incidents:

- Past incidents along major truck routes have included truck overturns in wet conditions and collisions at busy intersections. It is crucial to maintain safe speeds, especially during adverse weather conditions.

8. Environmental Considerations and Sensitive Areas:

- Route sections near agricultural zones and water bodies should be navigated with caution to prevent hazardous spills. Awareness of local wildlife or conservation areas is vital to minimize ecological disruption.

9. Analysis of Communication Coverage:

- While major routes usually have good mobile coverage, rural sections may encounter signal dead zones. Ensuring the truck is equipped with offline navigation and emergency communication tools is vital.

10. Estimated Emergency Response Times:

- Urban or semi-urban sections have quicker emergency response times (approximately 15-30 minutes). Rural or remote areas might experience delays, sometimes extending up to an hour or more.

11. Overall Summary of Risk Assessment:

- This route is moderately safe for transporting hazardous materials, provided that weather conditions are monitored, and peak traffic times are avoided. Maintaining communication tools and having contingency plans for alternative routes enhances safety. Adherence to local regulations and regular vehicle maintenance will mitigate significant risks.

Continuous monitoring of regional travel advisories and weather forecasts is essential to ensure a safe journey. Consultation with local authorities before transit could provide updates on any temporary restrictions or roadworks.

Route Photos of Risky Spots



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 0.33 km

Coordinates: 11.44024, 77.87528



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 1.29 km

Coordinates: 11.44898, 77.87410



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 3.27 km

Coordinates: 11.45352, 77.85698



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.10 km

Coordinates: 11.45847, 77.85140



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: 12.89 km
Coordinates: 11.44965, 77.77565



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 13.16 km
Coordinates: 11.44953, 77.77344



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 24.20 km
Coordinates: 11.43165, 77.67734



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 56.26 km
Coordinates: 11.23724, 77.50686



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 56.73 km

Coordinates: 11.23686, 77.50216



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 57.14 km

Coordinates: 11.23396, 77.50105



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 57.36 km

Coordinates: 11.23287, 77.49934



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 64.20 km

Coordinates: 11.18407, 77.46330



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 64.43 km

Coordinates: 11.18273, 77.46224



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 64.95 km
Coordinates: 11.17851, 77.46169



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 65.33 km
Coordinates: 11.17521, 77.45978



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 65.71 km
Coordinates: 11.17368, 77.45730



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 66.06 km
Coordinates: 11.17111, 77.45547



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 67.25 km
Coordinates: 11.16959, 77.44396



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 68.27 km
Coordinates: 11.16381, 77.43700



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 68.82 km
Coordinates: 11.16280, 77.43139



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 70.30 km
Coordinates: 11.15217, 77.42418



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 70.53 km
Coordinates: 11.15134, 77.42300



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 70.68 km
Coordinates: 11.15023, 77.42247



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 70.91 km
Coordinates: 11.14925, 77.42065



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 72.21 km
Coordinates: 11.13848, 77.41611



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 72.70 km
Coordinates: 11.13578, 77.41299



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 74.02 km

Coordinates: 11.12989, 77.40302



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 75.04 km

Coordinates: 11.12775, 77.39347



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 76.15 km
Coordinates: 11.11846, 77.39460



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 78.00 km
Coordinates: 11.10276, 77.39199



Risk Type: Blind Spot
Speed Limit: 10 KM/Hr
Distance from Start: 78.42 km
Coordinates: 11.09882, 77.39312



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 78.83 km
Coordinates: 11.09898, 77.39028



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 79.35 km
Coordinates: 11.09456, 77.39233



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 80.14 km
Coordinates: 11.08759, 77.39166



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 81.01 km
Coordinates: 11.08531, 77.38413



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 81.33 km
Coordinates: 11.08597, 77.38095



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 81.59 km

Coordinates: 11.08536, 77.37919



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 81.74 km

Coordinates: 11.08448, 77.37842



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 82.01 km
Coordinates: 11.08510, 77.37541



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 82.21 km
Coordinates: 11.08463, 77.37378



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 82.38 km
Coordinates: 11.08497, 77.37234



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 83.37 km

Coordinates: 11.08604, 77.36377



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 84.22 km

Coordinates: 11.08377, 77.35780

[Download Interactive Map](#)

