



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

IOCL Coimbatore Terminal to Eniyan Oils

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

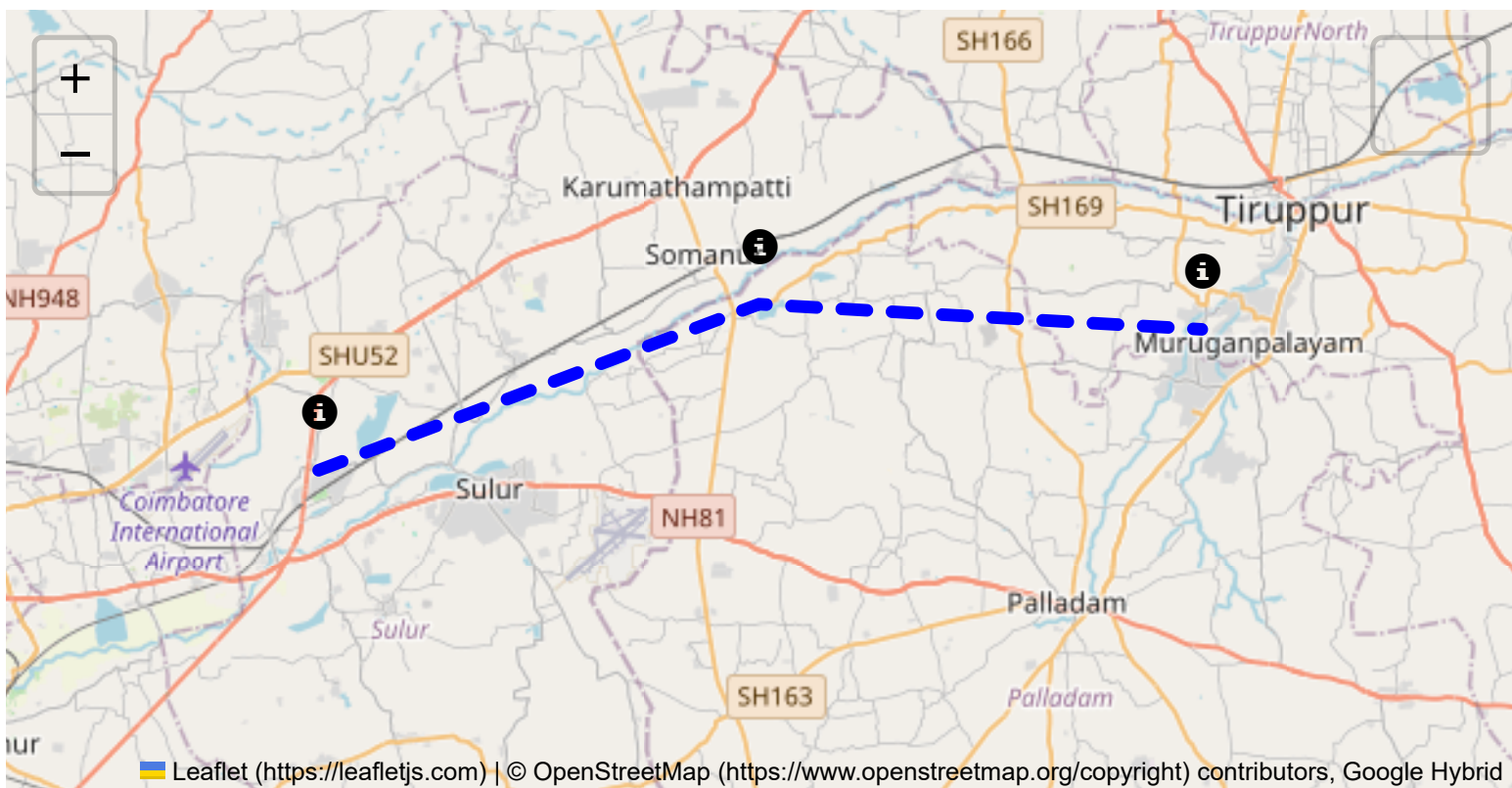
The JRM report addresses environmental risks along the route, ensuring compliance with environmental protection laws in ecologically sensitive zones. It suggests strategies such as identifying areas near water bodies, forests, or populated regions and implementing safety measures to minimize environmental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

Journey Risk Mitigation

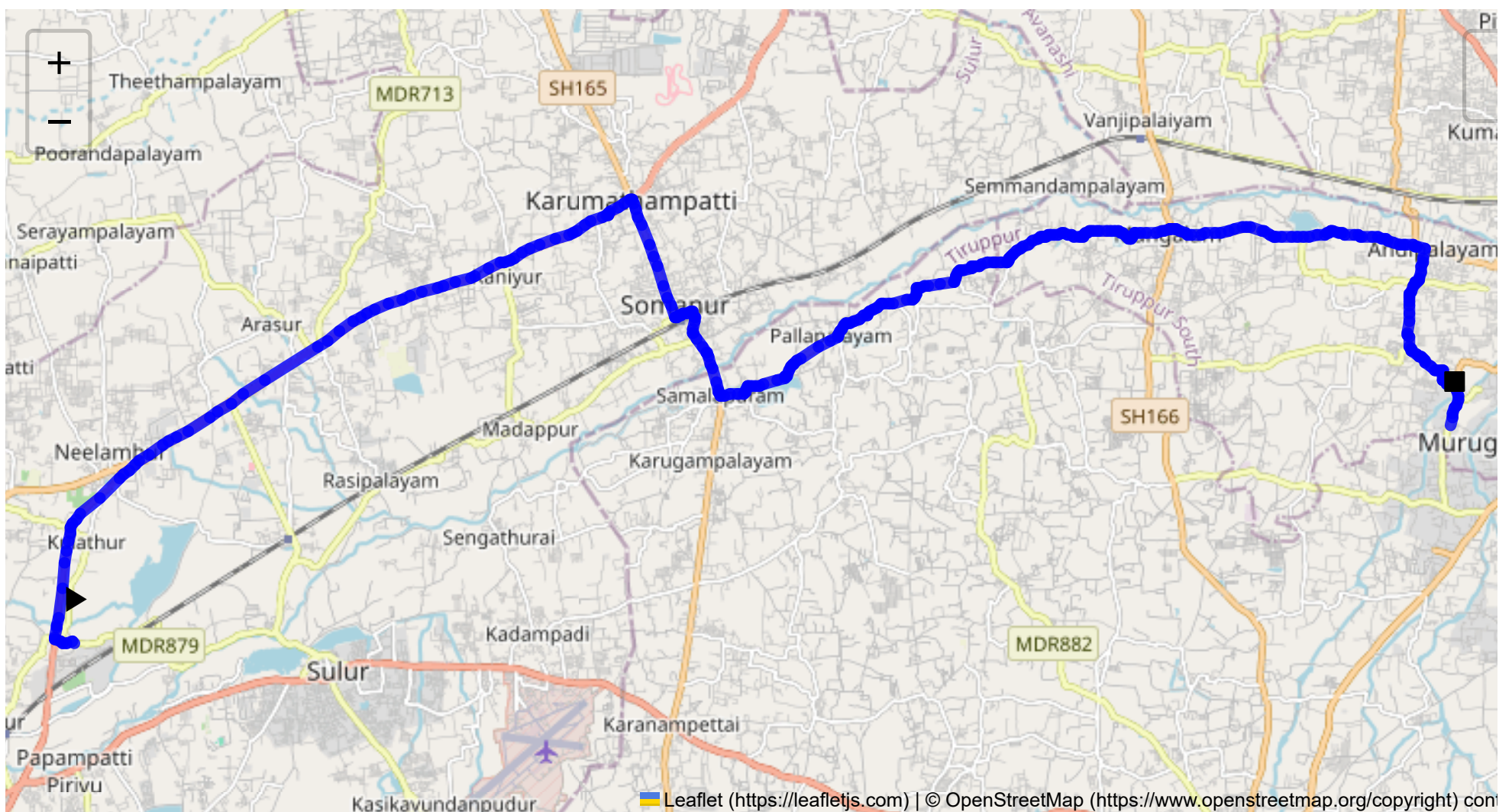
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety 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: 38.64 km
Estimated Duration: 1.0 hours
Adjusted Duration (Heavy Vehicle): 1.3 hours
Start: (11.0315, 77.0797)
End: (11.068954, 77.320663)



Welcome to the Journey Risk Management Study

Route Overview

The route from Athappagoundenpudur to Muruganpalayam in Tamil Nadu spans approximately 38.64 kilometers, primarily following the Tiruppur - Vijayamangalam Road. The journey passes through rural and suburban areas, providing access to both agricultural and industrial zones.

Weather Conditions

The region experiences a tropical climate with distinct wet and dry seasons. The Monsoon season (June to September) may bring heavy rain, leading to slippery roads and reduced visibility. The heat in summer (March to May) can lead to road surface damage, potentially affecting driving conditions.

Traffic Patterns

The route is moderately trafficked, with peak congestion typically observed in the morning (8:00 AM to 10:00 AM) and late afternoon (4:00 PM to 6:00 PM), especially near urban centers in Tirupur and Samalapuram. Weekends may see a decrease in commercial traffic but can still be busy due to local travel.

Road Quality and Infrastructure

The Tirupur - Vijayamangalam Road is mostly well-paved, but certain sections may suffer from potholes, particularly after the monsoon season. Road infrastructure generally supports heavy vehicles, though narrow turns and local traffic in villages may require caution.

Alternative Routes

In emergencies such as roadblocks or severe weather, drivers can use alternative routes that bypass heavily congested or damaged areas by taking the State Highway 81 to connect back to Veerapandi via side roads. However, this may increase travel time and should be evaluated based on the situation.

Local Regulations for Hazardous Material Transport

Tamil Nadu has specific regulations for transporting hazardous materials, including obtaining necessary permits, proper vehicle labeling, and maintaining safety equipment on board. Awareness of local checkpoints is essential to ensure compliance.

Historical Incidents

While no major incidents have been recently reported involving heavy vehicles or hazardous materials on this specific route, drivers should remain vigilant due to the industrial nature of Tirupur, which may increase risks inherent to transporting chemicals.

Environmental Considerations

Drivers should note locations near water bodies or protected lands, minimizing potential contamination risks. It is important to follow designated routes to avoid ecologically sensitive areas that may be disrupted by hazardous material transport.

Communication Coverage

Mobile coverage is generally reliable throughout the route due to proximity to urban areas, though isolated patches, especially in more rural sections, may experience weaker signals. Pre-planning communication checkpoints is advisable.

Emergency Response Times

Emergency services in urban centers like Tirupur can respond within 15-30 minutes. However, rural sections might experience delays, with response times extending to 45 minutes. This varies with traffic and weather conditions.

Overall Summary of Risk Assessment

This route presents manageable risks for transporting hazardous materials when following regulations and exercising caution. Drivers should particularly prepare for weather-induced hazards and potential congestion in urban areas. Constant vigilance and adherence to safety protocols will mitigate risks associated with this journey. Efficient communication plans and knowledge of alternative routes are crucial for maintaining safety standards.

Risk Assessment - Turns

	Risk Type	Risk Level	Coordinates	Speed Limit
0	Turn	High	11.03211, 77.07640	15 KM/Hr
1	Turn	Medium	11.10527, 77.17318	30 KM/Hr
2	Blind Spot	Blind Spot	11.10783, 77.17709	10 KM/Hr
3	Turn	Medium	11.08752, 77.18466	30 KM/Hr
4	Turn	High	11.08745, 77.18473	15 KM/Hr
5	Turn	Medium	11.08840, 77.18760	30 KM/Hr
6	Turn	Medium	11.08836, 77.18775	30 KM/Hr
7	Turn	Medium	11.08528, 77.18775	30 KM/Hr
8	Blind Spot	Blind Spot	11.07394, 77.19267	10 KM/Hr
9	Turn	Medium	11.07458, 77.19707	30 KM/Hr
10	Turn	Medium	11.07557, 77.19746	30 KM/Hr
11	Turn	Medium	11.08976, 77.22074	30 KM/Hr
12	Turn	High	11.09065, 77.22676	15 KM/Hr
13	Turn	Medium	11.09249, 77.22715	30 KM/Hr
14	Turn	Medium	11.09259, 77.22725	30 KM/Hr
15	Turn	Medium	11.09348, 77.23361	30 KM/Hr
16	Turn	Medium	11.09543, 77.23458	30 KM/Hr
17	Turn	Medium	11.09571, 77.23650	30 KM/Hr
18	Turn	Medium	11.09583, 77.23668	30 KM/Hr

	Risk Type	Risk Level	Coordinates	Speed Limit
19	Turn	Medium	11.09611, 77.23678	30 KM/Hr
20	Turn	Medium	11.09686, 77.24282	30 KM/Hr
21	Turn	Medium	11.09696, 77.24296	30 KM/Hr
22	Turn	Medium	11.10142, 77.24908	30 KM/Hr
23	Turn	Medium	11.10133, 77.24948	30 KM/Hr
24	Turn	Medium	11.10193, 77.25228	30 KM/Hr
25	Turn	High	11.10086, 77.26429	15 KM/Hr
26	Turn	High	11.10088, 77.26449	15 KM/Hr
27	Turn	Medium	11.10182, 77.26510	30 KM/Hr
28	Turn	High	11.10246, 77.27138	15 KM/Hr
29	Turn	Medium	11.10248, 77.27139	30 KM/Hr
30	Turn	Medium	11.10250, 77.27143	30 KM/Hr
31	Turn	High	11.10249, 77.27147	15 KM/Hr
32	Turn	High	11.10247, 77.27148	15 KM/Hr
33	Turn	Medium	11.10234, 77.29944	30 KM/Hr
34	Turn	High	11.09936, 77.31588	15 KM/Hr
35	Turn	High	11.08173, 77.31340	15 KM/Hr
36	Turn	Medium	11.07823, 77.31907	30 KM/Hr
37	Turn	Medium	11.07669, 77.31918	30 KM/Hr
38	Turn	Medium	11.07609, 77.31985	30 KM/Hr
39	Turn	High	11.07600, 77.32149	15 KM/Hr

Emergency Locations

	type	name	coordinates	speed_limit	risk_level
0	hospital	Royal Care Hospital, Coimbatore	11.059106, 77.0893479	30 km/h	Medium
4	police	Karumathampatti Police Station	11.1093464, 77.1802095	30 km/h	Medium
5	hospital	Governmemt Hospital, Somanur	11.0839439, 77.189266	30 km/h	Medium

Crowded Spots

	type	name	coordinates	speed_limit	risk_level
1	college	PSG Institute of Technology and Applied Research	11.0677118, 77.0945744	30 km/h	Medium
2	school	GRD-CPF Matriculation Higher Secondary School	11.0610217, 77.0933504	30 km/h	Medium
3	school	M. Nanjappa Chettiar Matriculation Hr. Sec. School	11.0715394, 77.1039133	30 km/h	Medium

Route Photos of Risky Spots



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.03211, 77.07640



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10527, 77.17318



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 11.10783, 77.17709



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.08752, 77.18466

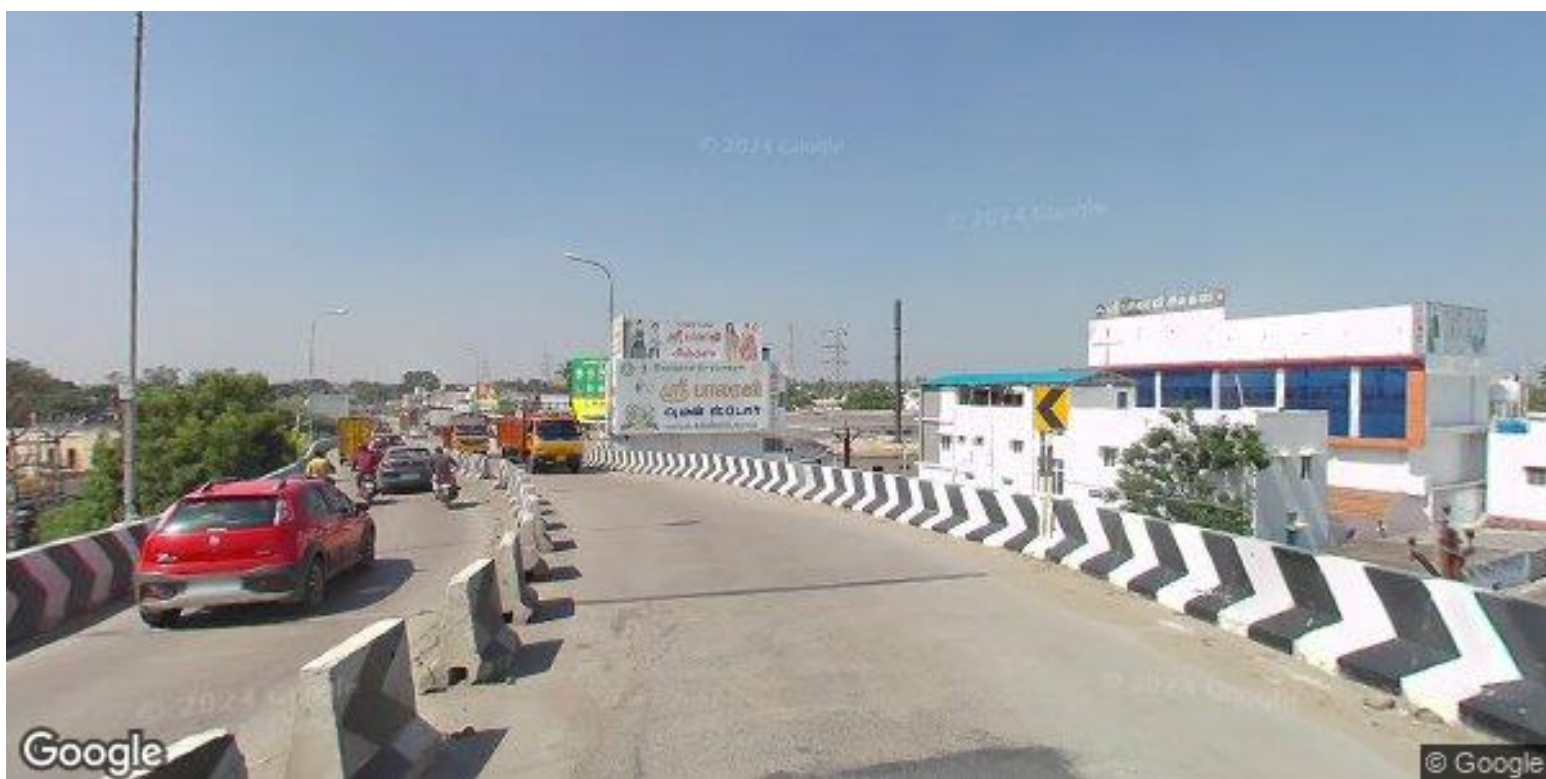


Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.08745, 77.18473



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.08840, 77.18760



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.08836, 77.18775



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.08528, 77.18775



Risk Type: Blind Spot

Risk Level: Blind Spot

Speed Limit: 10 KM/Hr

Coordinates: 11.07394, 77.19267



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.07458, 77.19707



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.07557, 77.19746



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.08976, 77.22074



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.09065, 77.22676



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.09249, 77.22715



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.09259, 77.22725



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.09348, 77.23361



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.09543, 77.23458



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.09571, 77.23650



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.09583, 77.23668



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.09611, 77.23678



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.09686, 77.24282



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.09696, 77.24296



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10142, 77.24908



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10133, 77.24948



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10193, 77.25228



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.10086, 77.26429



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.10088, 77.26449



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10182, 77.26510



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.10246, 77.27138



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10248, 77.27139



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10250, 77.27143



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.10249, 77.27147



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.10247, 77.27148



Risk Type: Turn

Risk Level: Medium

Speed Limit: 30 KM/Hr

Coordinates: 11.10234, 77.29944



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.09936, 77.31588



Risk Type: Turn
Risk Level: High
Speed Limit: 15 KM/Hr
Coordinates: 11.08173, 77.31340



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07823, 77.31907



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07669, 77.31918



Risk Type: Turn
Risk Level: Medium
Speed Limit: 30 KM/Hr
Coordinates: 11.07609, 77.31985



Risk Type: Turn

Risk Level: High

Speed Limit: 15 KM/Hr

Coordinates: 11.07600, 77.32149
