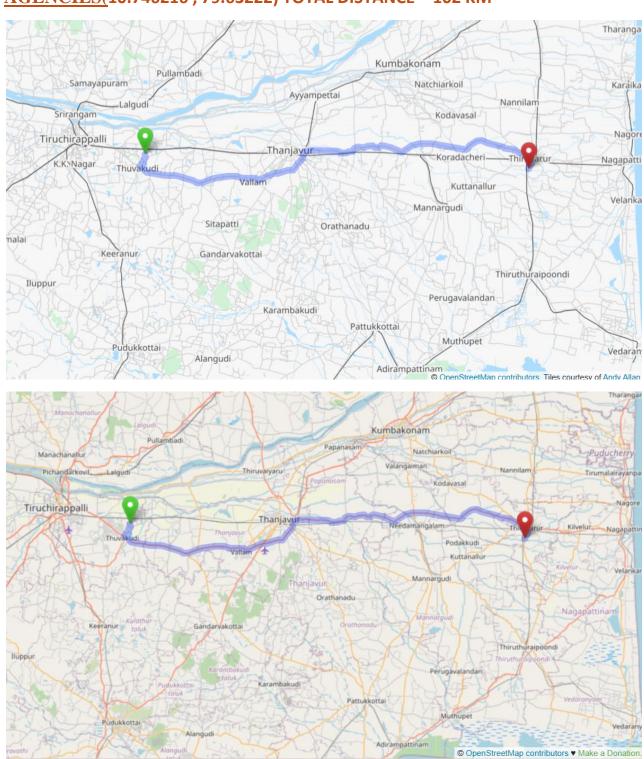


# WELCOME TO JOURNEY RISK MANAGEMENT (JRM) STUDY USING ARTIFICIAL INTELLIGENCE (AI) FOR IOCL TRICHY TERMINAL

**ALARP/JRM/TNSO/AST AGENCIES** 

# <u>IOCL TIRCHY TERMINAL (10.7753, 78.8368) TO AST</u> AGENCIES(10.746216, 79.63222) TOTAL DISTANCE – 102 KM



# Welcome to the Journey Risk Management Study for AST AGENCIES

Total distance: 102 KM; Start with: (10.7753, 78.8368), End with: (10.746216, 79.63222)

# **Route Safety Analysis Report**

# 1. Overview of the Route Map

The route from Trichy Terminal (T.N) TO AST AGENCIESIS. The Rouite passes several key point including Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, Follow NH 83 to Mayiladuthurai - Thiruthuraipoondi Rd/Panagal Rd in Santhamangalam, Thiruvarur, Continue on Mayiladuthurai - Thiruthuraipoondi Rd/Panagal Rd to your destination, and Total distance from Trichy Terminal To AST AGENCIESIS 102 KMKM.

# **Typical Weather Conditions and Potential Weather-Related Hazards**

**Weather Conditions:** Trichy Terminal (T.N) To AST AGENCIES experiences a tropical climate with heavy monsoon rains from June to September, high humidity, and moderate temperatures throughout the year ,The summers are short and sweltering; the winters are short, cool, and dry; and it is mostly clear year-round. Over the course of the year, the temperature typically varies from 60.8°F to 110°F and is rarely below 60.8°F to 110°F.

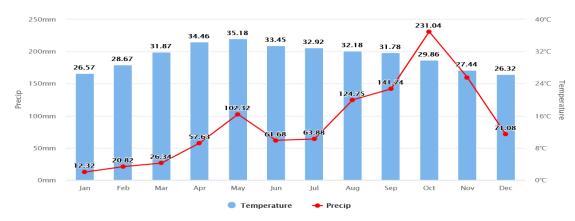
| Month                                 | Jan     | Feb     | Mar     | Apr      | May      | Jun     | Jul     | Aug     | Sep     | Nov     | Oct     | Dec     | Year    |
|---------------------------------------|---------|---------|---------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Record high °C (°F)                   | 33.0    | 38.0    | 41.0    | 43.0     | 43.0     | 42.0    | 40.0    | 39.0    | 38.0    | 37.0    | 34.0    | 33.0    | 43.0    |
|                                       | (91.4)  | (100.4) | (105.8) | (109.4)  | (109.4)  | (107.6) | (104.0) | (102.2) | (100.4) | (98.6)  | (93.2)  | (91.4)  | (109.4) |
| Average high °C (°F)                  | 30.27   | 32.88   | 36.0    | 38.27    | 38.79    | 36.78   | 36.17   | 35.4    | 35.03   | 32.9    | 30.38   | 29.34   | 34.35   |
|                                       | (86.49) | (91.18) | (96.8)  | (100.89) | (101.82) | (98.2)  | (97.11) | (95.72) | (95.05) | (91.22) | (86.68) | (84.81) | (93.83) |
| Daily mean °C (°F)                    | 26.57   | 28.67   | 31.87   | 34.46    | 35.18    | 33.45   | 32.92   | 32.18   | 31.78   | 29.86   | 27.44   | 26.32   | 30.89   |
|                                       | (79.83) | (83.61) | (89.37) | (94.03)  | (95.32)  | (92.21) | (91.26) | (89.92) | (89.2)  | (85.75) | (81.39) | (79.38) | (87.6)  |
| Average low °C (°F)                   | 19.88   | 20.93   | 24.04   | 27.62    | 28.89    | 27.59   | 27.04   | 26.45   | 25.95   | 24.64   | 22.43   | 20.93   | 24.7    |
|                                       | (67.78) | (69.67) | (75.27) | (81.72)  | (84.0)   | (81.66) | (80.67) | (79.61) | (78.71) | (76.35) | (72.37) | (69.67) | (76.46) |
| Record low °C (°F)                    | 16.0    | 17.0    | 19.0    | 22.0     | 25.0     | 25.0    | 24.0    | 23.0    | 22.0    | 21.0    | 18.0    | 17.0    | 16.0    |
|                                       | (60.8)  | (62.6)  | (66.2)  | (71.6)   | (77.0)   | (77.0)  | (75.2)  | (73.4)  | (71.6)  | (69.8)  | (64.4)  | (62.6)  | (60.8)  |
| Average precipitation mm (inches)     | 12.32   | 20.82   | 26.34   | 57.63    | 102.32   | 61.68   | 63.88   | 124.75  | 141.74  | 231.04  | 159.62  | 71.08   | 89.44   |
|                                       | (0.49)  | (0.82)  | (1.04)  | (2.27)   | (4.03)   | (2.43)  | (2.51)  | (4.91)  | (5.58)  | (9.1)   | (6.28)  | (2.8)   | (3.52)  |
| Average precipitation days (≥ 1.0 mm) | 3.09    | 3.27    | 5.36    | 7.36     | 16.73    | 12.36   | 13.55   | 18.91   | 19.64   | 22.73   | 17.55   | 9.73    | 12.52   |
| Average relative humidity (%)         | 72.01   | 65.19   | 58.27   | 53.97    | 51.56    | 50.59   | 51.14   | 56.11   | 60.33   | 70.18   | 77.39   | 76.61   | 61.95   |
| Mean monthly sunshine hours           | 11.19   | 11.34   | 11.34   | 11.63    | 12.65    | 12.68   | 11.83   | 11.24   | 11.05   | 9.11    | 7.68    | 8.29    | 10.84   |

<u>Weather-Related Hazards:</u> Trichy Terminal (T.N) To AST AGENCIES Providing a local hourly weather forecast of rain, sun, wind, humidity and temperature.

The Long-range 12 day forecast also includes detail for weather today. Live weather reports from Trichy Terminal (T.N) To AST AGENCIES weather stations and weather warnings that include risk of thunder, high UV index and forecast gales.

#### Climate Graph

The chart below shows the mean monthly temperature and precipitation of Tiruchirappalli in recent years.



# **Analysis of Traffic Patterns**

#### **Peak Hours:**

Typically, Trichy Terminal (T.N) To AST AGENCIES peak traffic hours are from 8:00 AM to 11:00 AM and 4:00 PM to 8:00 PM on weekdays.

# **Congestion-Prone Areas:**

- Old Burma Colony
- TIRUCHY PUBLIC SCHOOL
- Himalayan Access Pvt.Ltd
- Tool Fab Engineering Industries Ltd. (Unit 2)
- Gnanam School of Business
- SASTRA Deemed University
- K.R.P Samy residency
- Veterinary UniversityTraining & Research Centre (VUTRC)

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- RTO Thanjavur
- HOTEL GREEN PALACE
- Fathima Matriculation higher secondary School, Kovilur
- Bharath College of Nursing

# Assessment of Road Quality and Infrastructure

**Road Quality:** Generally, the roads are well-maintained but can suffer from potholes and water logging on State Highway during the monsoon season.

**Infrastructure:** Adequate signage, street lighting, and traffic signals are present, but some areas may lack proper drainage systems, leading to water logging.

# **Suggestions for Alternative Routes for Emergencies**

Alternative Route 1- ). Take SIDCO to Indian oil Storage to NH 83 in ThuvakudiAt Jude Digital Studios, continue onto Thuvakudi toSIDCO& Indian oil Storage, Follow NH 83 to Mayiladuthurai - Thiruthuraipoondi Rd/Panagal Rd in Santhamangalam, Thiruvarur, Continue on Mayiladuthurai - Thiruthuraipoondi Rd/Panagal Rd to your destination.

Alternative Route 2 -) Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, At Jude Digital Studios, continue onto Thuvakudi toSIDCO& Indian oil Storage, Follow NH 83 and NH 36 to Chinnammal Kallarai/Kallanai - Poombhuhar Rd/Poompuhar Rd in Kumbakonam, Keep right to stay on NH 83, At the roundabout, take the 2nd exit and stay on NH 36, Slight right at Pugazendi Car AC & Electrician Works onto NH 136B, Follow Chinnammal Kallarai/Poompuhar Rd to NH 136B in Aduthurai, Turn right at M.S.K Fish Farm onto NH 136B, Continue on Aduthurai - Porayar Rd. Drive to Main Rd in Nallathur.

# **Summary of Local Regulations Affecting Hazardous Material Transport**

Regulations: Transport of hazardous materials is regulated by the Petroleum and Explosives Safety Organization (PESO) and the Motor Vehicles Act. Specific routes and timings may be restricted for hazardous material transport.

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Permits: Ensure all necessary permits and documentation are in place.

# Overview of Historical Incidents

Historical Incidents: There have been occasional incidents involving heavy vehicles, particularly during the monsoon season due to waterlogging and poor visibility. No major incidents involving hazardous materials have been reported recently.

#### **!** Environmental Considerations and Sensitive Areas

- Sensitive Areas: State Institute Of Hotel Management and Catering Technology, Valavanthankottai Toll Plaza, SPOT ON 42969 Royal Residency, Anand Engineering Products Ptv. Ltd. (Unit 2), The Urban Coffee House | coffee shop | Cafe | restaurant, GNR Marriage Hall, Tool Fab Engineering Industries Ltd. (Unit 2), Anandam Law college, School of Law, SASTRA University, Masjidul Aqsa vallam, Maruti Suzuki ARENA (PLA Motors, Thanjavur, Nangikkottai Road), Hotel Anitha Parthiban, Bon Secours College of Education, Best Matriculation Higher Secondary School, Vembukudi Toll Plaza, Sri Saravana Balaji Marriage Mahal.
- **Educational institutions**: Chanakya share market training Institute, Indian Institute of Catering Technology and Hotel Management, Samiyappa Institute Of Co Operative Management, Premier Institute, S.K Institute of Arts & Education, Dr S R J Group of Educational Institutions, DEEPA INSTITUTE FOR VEDIC MATHS.
- **Hospital:** Dr Kamali's Home Clinic, Meenakshi Hospital, Rohini Hospital, Government Raja Mirasudar Hospital, Anbu Hospital.
- **Gas Station:** ESSAR petrol pump, SP Petroleum (HPCL), HP PETROL PUMP M/S. A.V.R. PETROL BUNK, IndianOil, IndianOil.
- **Environmental Impact:** Minimize noise and air pollution, especially in residential and sensitive areas.

- **Air pollution**: Volatile chemicals evaporate during the filling and discharge process, or from leaks.
- **Loss of habitats**: Oil and gas operations can degrade animal habitats and disrupt migratory pathways.
- **Oil spills**: Oil spills can be devastating for animals and humans.
- **Greenhouse gas emissions**: Oil and gas operations can emit greenhouse gases like methane.
- Analysis of Communication Coverage

Communication Coverage: Generally good throughout the route, but potential dead zones may exist densely built-up areas or underpasses.

Dead Zones: Monitor for any communication blackouts, especially in underpasses or near large buildings.

• Estimated Emergency Response Times: State Institute Of Hotel Management and Catering Technology, Valavanthankottai Toll Plaza, SPOT ON 42969 Royal Residency, Anand Engineering Products Ptv. Ltd. (Unit 2), The Urban Coffee House | coffee shop | Cafe | restaurant, GNR Marriage Hall, Tool Fab Engineering Industries Ltd. (Unit 2), Anandam Law college, School of Law, SASTRA University, Masjidul Aqsa vallam, Maruti Suzuki ARENA (PLA Motors, Thanjavur, Nangikkottai Road), Hotel Anitha Parthiban, Bon Secours College of Education, Best Matriculation Higher Secondary School, Vembukudi Toll Plaza, Sri Saravana Balaji Marriage Mahal, areas like have quicker response times (15-20 minutes). Congested areas may experience delays (up to 30-40 minutes).

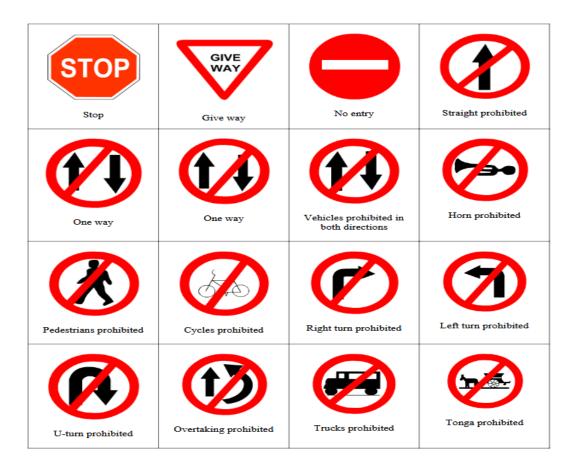
**Overall Summary of Risk Assessment** 

- **Risk Level:** Moderate to High, especially during monsoon season.
- **Key Risks**: Water logging, traffic congestion, and potential communication dead zones.
- **Mitigation Measures**: Plan travel during non-peak hours, ensure proper vehicle maintenance, and have alternative routes and emergency contacts ready and control on the speed limit of the vehicle.

# Road Signage for TT/PT Driver

Road Traffic Signs in India

#### Mandatory/Regulatory Signs





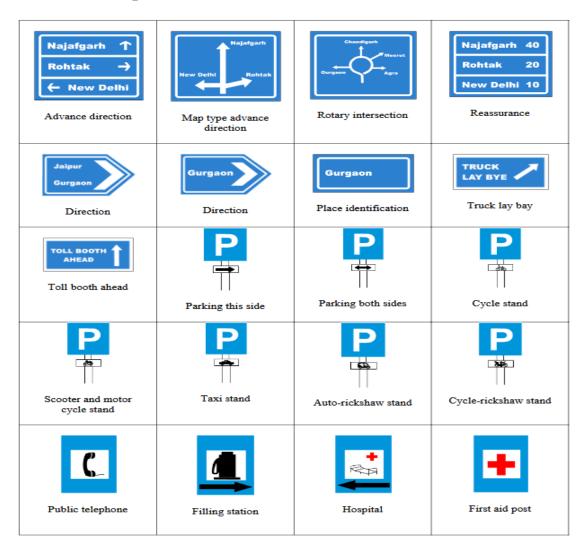


Restriction ands

# Cautionary signs



#### Information signs



#### Conclusion

The route for Trichy Terminal (T.N) To AST AGENCIES is generally manageable but poses several risks, particularly during the monsoon season. Proper planning, adherence to regulations, and awareness of potential hazards can significantly mitigate these risks.

# • Risk Assessment - Sharp Turns

| Risk Type  | Risk Level | Coordination        | Distance<br>From Start | Recommendation<br>Speed |
|------------|------------|---------------------|------------------------|-------------------------|
| Sharp turn | Medium     | 10.769517372474736, | 650 M                  | 20km/hr TO 30           |
|            |            | 78.83735063199906   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.76584461192607,  | 1.1 KM                 | 20km/hr TO 30           |
|            |            | 78.8361700257199    |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.764182189802032, | 1.3 KM                 | 20km/hr TO 30           |
| _          |            | 78.83459588401435   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.75826698538096,  | 2 KM                   | 20km/hr TO 30           |
| •          |            | 78.83349398474651   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.756372549032195, | 2.4 KM                 | 20km/hr TO 30           |
| -          |            | 78.83034570133539   |                        | Km/Hr                   |
| Sharp turn | High       | 10.751346435623256, | 3.2 KM                 | 10km/hr TO 15           |
| _          |            | 78.8252297405902    |                        | Km/Hr                   |
| Sharp turn | High       | 10.749451955814655, | 3.8 KM                 | 10km/hr TO 15           |
|            |            | 78.83046376176118   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.739326461561383, | 5.3 KM                 | 20km/hr TO 30           |
| -          |            | 78.83800479151158   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.73642740628165,  | 7.4 KM                 | 20km/hr TO 30           |
|            |            | 78.85764863813984   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.733604466438722, | 9.1 KM                 | 20km/hr TO 30           |
|            |            | 78.87281181707364   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.73080526998016,  | 12.8 KM                | 20km/hr TO 30           |
|            |            | 78.90617767628218   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.730477923035412, | 13 KM                  | 20km/hr TO 30           |
|            |            | 78.90801389404626   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.724463035027611, | 15 KM                  | 20km/hr TO 30           |
|            |            | 78.92577296721807   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.723788382097183, | 15.4 KM                | 20km/hr TO 30           |
|            |            | 78.92890578732897   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.721500875854746, | 16.3 KM                | 20km/hr TO 30           |
|            |            | 78.93682366832411   |                        | Km/Hr                   |
| Sharp turn | Medium     | 10.720994881360893, | 16.5 KM                | 20km/hr TO 30           |
|            |            | 78.93834716298483   |                        | Km/Hr                   |

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| Sharp turn | High   | 10.71915010256302,  | 16.8 KM  | 10km/hr TO 15 |
|------------|--------|---------------------|----------|---------------|
|            |        | 78.9411152027286    |          | Km/Hr         |
| Sharp turn | Medium | 10.71843327121256,  | 17 KM    | 20km/hr TO 30 |
|            |        | 78.94211298444303   |          | Km/Hr         |
| Sharp turn | High   | 10.717263145760954, | 17.5 KM  | 10km/hr TO 15 |
|            |        | 78.94670492633878   |          | Km/Hr         |
| Sharp turn | High   | 10.716985075928461, | 18 KM    | 10km/hr TO 15 |
|            |        | 78.95102478766644   |          | Km/Hr         |
| Sharp turn | Medium | 10.71809195248243,  | 18. 5 KM | 20km/hr TO 30 |
|            |        | 78.95607806951443   |          | Km/Hr         |
| Sharp turn | High   | 10.725197170776585, | 21 KM    | 10km/hr TO 15 |
| _          |        | 78.97692607372574   |          | Km/Hr         |
| Sharp turn | Medium | 10.730780555846192, | 25.3 KM  | 20km/hr TO 30 |
| _          |        | 79.01656126512937   |          | Km/Hr         |
| Sharp turn | High   | 10.730190246964545, | 25.8 KM  | 10km/hr TO 15 |
| _          |        | 79.02046656130192   |          | Km/Hr         |
| Sharp turn | High   | 10.730401071697452, | 26.2 KM  | 10km/hr TO 15 |
| 1          |        | 79.02480101090002   |          | Km/Hr         |
| Sharp turn | Medium | 10.727139512814995, | 27.9 KM  | 20km/hr TO 30 |
| _          |        | 79.03926391834526   |          | Km/Hr         |
| Sharp turn | Medium | 10.726633527742022, | 30.7 KM  | 20km/hr TO 30 |
| 1          |        | 79.06514187050024   |          | Km/Hr         |
| Sharp turn | Medium | 10.723049442647225, | 31.4 KM  | 20km/hr TO 30 |
| 1          |        | 79.07037754229201   |          | Km/Hr         |
| Sharp turn | Medium | 10.736837396359547, | 35.6 KM  | 20km/hr TO 30 |
| 1          |        | 79.10561104002268   |          | Km/Hr         |
| Sharp turn | Medium | 10.73612060698111,  | 36.2 KM  | 20km/hr TO 30 |
| 1          |        | 79.11058922045575   |          | Km/Hr         |
| Sharp turn | High   | 10.742782466810393, | 38.8 KM  | 10km/hr TO 15 |
| 1          |        | 79.13346309881189   |          | Km/Hr         |
| Sharp turn | Medium | 10.7432462617802,   | 39.9 KM  | 20km/hr TO 30 |
| 1          |        | 79.14376278157714   |          | Km/Hr         |
| Sharp turn | Medium | 10.761628831100811, | 42.6 KM  | 20km/hr TO 30 |
| •          |        | 79.15891189809322   |          | Km/Hr         |
| Sharp turn | High   | 10.769386276465765, | 43.6 KM  | 10km/hr TO 15 |
| 1          |        | 79.16457672365718   |          | Km/Hr         |

| Sharp turn | High   | 10.777523785773456, | 44.5 KM | 10km/hr TO 15 |
|------------|--------|---------------------|---------|---------------|
|            |        | 79.16605658817572   |         | Km/Hr         |
| Sharp turn | Medium | 10.778298856573569, | 44.6 KM | 20km/hr TO 30 |
|            |        | 79.166124866062     |         | Km/Hr         |
| Sharp turn | High   | 10.780199262033587, | 44.9 KM | 10km/hr TO 15 |
|            |        | 79.16753594256141   |         | Km/Hr         |
| Sharp turn | Medium | 10.7806315094395,   | 45 KM   | 20km/hr TO 30 |
|            |        | 79.1679076777507    |         | Km/Hr         |
| Sharp turn | Medium | 10.79007090118994,  | 46.3 KM | 20km/hr TO 30 |
|            |        | 79.17526904315943   |         | Km/Hr         |
| Sharp turn | Medium | 10.838732864147495, | 52.1 KM | 20km/hr TO 30 |
| _          |        | 79.19203106952445   |         | Km/Hr         |
| Sharp turn | Medium | 10.841627556326298, | 52.4KM  | 20km/hr TO 30 |
| _          |        | 79.19288590968536   |         | Km/Hr         |
| Sharp turn | High   | 10.864382116006672, | 55 KM   | 10km/hr TO 15 |
| _          |        | 79.19247970116858   |         | Km/Hr         |
| Sharp turn | Medium | 10.865459704381829, | 55.1 KM | 20km/hr TO 30 |
| _          |        | 79.19283694778355   |         | Km/Hr         |
| Sharp turn | Medium | 10.86958207059273,  | 55.7 KM | 20km/hr TO 30 |
|            |        | 79.19625630830366   |         | Km/Hr         |
| Sharp turn | Medium | 10.874421776457657, | 57.2 KM | 20km/hr TO 30 |
|            |        | 79.20945572418708   |         | Km/Hr         |
| Sharp turn | Medium | 10.874948023326985, | 57.4 KM | 20km/hr TO 30 |
|            |        | 79.21073160495483   |         | Km/Hr         |
| Sharp turn | Medium | 10.892892468546385, | 64.2 KM | 20km/hr TO 30 |
|            |        | 79.2699895159846    |         | Km/Hr         |
| Sharp turn | High   | 10.906466254501833, | 66.9 KM | 10km/hr TO 15 |
|            |        | 79.29083725124362   |         | Km/Hr         |
| Sharp turn | Medium | 10.916839547699407, | 68.4 KM | 20km/hr TO 30 |
|            |        | 79.29961531121639   |         | Km/Hr         |
| Sharp turn | Medium | 10.92707467639872,  | 69.8 KM | 20km/hr TO 30 |
|            |        | 79.30628816788477   |         | Km/Hr         |
| Sharp turn | Medium | 10.932649353273062, | 70.6 KM | 20km/hr TO 30 |
|            |        | 79.3106134039501    |         | Km/Hr         |
| Sharp turn | Medium | 10.935079628994828, | 71.1 KM | 20km/hr TO 30 |
|            |        | 79.31465794598385   |         | Km/Hr         |

| Sharp turn | Medium | 10.935881809725412, | 72.6 KM | 20km/hr TO 30 |
|------------|--------|---------------------|---------|---------------|
|            |        | 79.32846053023889   |         | Km/Hr         |
| Sharp turn | High   | 10.939258924057162, | 74.2 KM | 10km/hr TO 15 |
|            |        | 79.34295919658322   |         | Km/Hr         |
| Sharp turn | Medium | 10.940185918176494, | 74.5 KM | 20km/hr TO 30 |
|            |        | 79.34528129965602   |         | Km/Hr         |
| Sharp turn | Medium | 10.941250705135284, | 74.6 KM | 20km/hr TO 30 |
|            |        | 79.34595751650197   |         | Km/Hr         |
| Sharp turn | Medium | 10.947263547752911, | 75.3 KM | 20km/hr TO 30 |
|            |        | 79.34723339730526   |         | Km/Hr         |
| Sharp turn | Medium | 10.947639346359221, | 75.4 KM | 20km/hr TO 30 |
|            |        | 79.34734822657435   |         | Km/Hr         |
| Sharp turn | High   | 10.951359726957488, | 75.8 KM | 10km/hr TO 15 |
|            |        | 79.34788409653387   |         | Km/Hr         |
| Sharp turn | High   | 10.954090481533097, | 76.1 KM | 10km/hr TO 15 |
|            |        | 79.3478713377262    |         | Km/Hr         |
| Sharp turn | Medium | 10.955480901997275, | 76.2 KM | 20km/hr TO 30 |
|            |        | 79.34833065485216   |         | Km/Hr         |
| Sharp turn | Medium | 10.966303410639958, | 77.5 KM | 20km/hr TO 30 |
|            |        | 79.3521710560902    |         | Km/Hr         |
| Sharp turn | Medium | 10.969722940404145, | 78 KM   | 20km/hr TO 30 |
|            |        | 79.3542890182272    |         | Km/Hr         |
| Sharp turn | Medium | 10.97156420928446,  | 78.3 KM | 20km/hr TO 30 |
|            |        | 79.35704492074562   |         | Km/Hr         |
| Sharp turn | Medium | 10.974244675466208, | 79 KM   | 20km/hr TO 30 |
|            |        | 79.36227603209447   |         | Km/Hr         |
| Sharp turn | Medium | 10.980554084386217, | 80.6 KM | 20km/hr TO 30 |
|            |        | 79.37598180044225   |         | Km/Hr         |
| Sharp turn | High   | 10.98099246669875,  | 80.8 KM | 10km/hr TO 15 |
|            |        | 79.37766596305566   |         | Km/Hr         |
| Sharp turn | Medium | 10.98218952078963,  | 82 KM   | 20km/hr TO 30 |
|            |        | 79.38795972392433   |         | Km/Hr         |
| Sharp turn | High   | 10.982640425804044, | 82.1 KM | 10km/hr TO 15 |
|            |        | 79.3888273228464    |         | Km/Hr         |
| Sharp turn | Medium | 10.983366882411035, | 82.5 KM | 20km/hr TO 30 |
|            |        | 79.39262944775143   |         | Km/Hr         |

| Sharp turn | High   | 10.981650938874413, | 82.8 KM | 10km/hr TO 15 |
|------------|--------|---------------------|---------|---------------|
|            |        | 79.39447947486467   |         | Km/Hr         |
| Sharp turn | Medium | 10.98558381666939,  | 83.5 KM | 20km/hr TO 30 |
|            |        | 79.39865160526288   |         | Km/Hr         |
| Sharp turn | Medium | 10.98891544919475,  | 84 KM   | 20km/hr TO 30 |
|            |        | 79.40207096583704   |         | Km/Hr         |
| Sharp turn | Medium | 10.991407886549627, | 84.7 KM | 20km/hr TO 30 |
|            |        | 79.40846312864453   |         | Km/Hr         |
| Sharp turn | High   | 10.991996549570876, | 84.9 KM | 10km/hr TO 15 |
|            |        | 79.40934348637427   |         | Km/Hr         |
| Sharp turn | Medium | 10.994401288511858, | 85.2 KM | 20km/hr TO 30 |
|            |        | 79.41132110176441   |         | Km/Hr         |
| Sharp turn | Medium | 10.998571961052205, | 86.1 KM | 20km/hr TO 30 |
|            |        | 79.41860638109635   |         | Km/Hr         |
| Sharp turn | Medium | 10.999598964467538, | 86.3 KM | 20km/hr TO 30 |
| _          |        | 79.42000985011298   |         | Km/Hr         |
| Sharp turn | Medium | 11.000388001231217, | 86.8 KM | 20km/hr TO 30 |
| 1          |        | 79.42383749269939   |         | Km/Hr         |
| Sharp turn | Medium | 11.00311830263473,  | 87.7 KM | 20km/hr TO 30 |
| _          |        | 79.43131415417443   |         | Km/Hr         |
| Sharp turn | Medium | 11.00507208079757,  | 88.2 KM | 20km/hr TO 30 |
| 1          |        | 79.43547352563432   |         | Km/Hr         |
| Sharp turn | Medium | 11.006487309414123, | 88.3 KM | 20km/hr TO 30 |
| _          |        | 79.43631560694104   |         | Km/Hr         |
| Sharp turn | Medium | 11.007864959118875, | 88.6 KM | 20km/hr TO 30 |
| _          |        | 79.4382804634414    |         | Km/Hr         |
| Sharp turn | Medium | 11.00829077679642,  | 88.7 KM | 20km/hr TO 30 |
| 1          |        | 79.43949255017075   |         | Km/Hr         |
| Sharp turn | Medium | 11.009455510263674, | 89.2 KM | 20km/hr TO 30 |
| 1          |        | 79.44302674003897   |         | Km/Hr         |
| Sharp turn | Medium | 11.011597104967523, | 90.2 KM | 20km/hr TO 30 |
| •          |        | 79.4519068706572    |         | Km/Hr         |
| Sharp turn | Medium | 11.0243962523845,   | 92.2 KM | 20km/hr TO 30 |
| _          |        | 79.47167026450096   |         | Km/Hr         |
| Sharp turn | Medium | 11.025423165698344, | 92.9 KM | 20km/hr TO 30 |
| 1          |        | 79.47270372792285   |         | Km/Hr         |

|            | High   | 11.026951005699203, | 93.4 KM | 10km/hr TO 15 |
|------------|--------|---------------------|---------|---------------|
|            |        | 79.4765186114184    |         | Km/Hr         |
| Sharp turn | Medium | 11.024070644939572, | 93.8 KM | 20km/hr TO 30 |
|            |        | 79.4784324327326    |         | Km/Hr         |
| Sharp turn | Medium | 11.023557186369509, | 93.9 KM | 20km/hr TO 30 |
|            |        | 79.47919796119325   |         | Km/Hr         |
| Sharp turn | Medium | 11.02231736807814,  | 94 KM   | 20km/hr TO 30 |
|            |        | 79.47914692596254   |         | Km/Hr         |
| Sharp turn | Medium | 11.019424438352559, | 94.4 KM | 20km/hr TO 30 |
|            |        | 79.48134144096412   |         | Km/Hr         |
|            | High   | 11.018159555404297, | 94.6 KM | 10km/hr TO 15 |
|            |        | 79.4812904057334    |         | Km/Hr         |
| Sharp turn | Medium | 11.01849769296255,  | 94.7 KM | 20km/hr TO 30 |
|            |        | 79.48245145723206   |         | Km/Hr         |
| Sharp turn | Medium | 11.021536838841904, | 96 KM   | 20km/hr TO 30 |
|            |        | 79.49363026592134   |         | Km/Hr         |
| Sharp turn | Medium | 11.022601332462624, | 96.9 KM | 20km/hr TO 30 |
|            |        | 79.50214039095387   |         | Km/Hr         |
| Sharp turn | Medium | 11.022263199620792, | 97 KM   | 20km/hr TO 30 |
|            |        | 79.50313557795272   |         | Km/Hr         |
| Sharp turn | Medium | 11.024905634862868, | 98.1 KM | 20km/hr TO 30 |
|            |        | 79.5124239902946    |         | Km/Hr         |
| Sharp turn | Medium | 11.025757220292181, | 98.4 KM | 20km/hr TO 30 |
|            |        | 79.51474609329189   |         | Km/Hr         |
| Sharp turn | Medium | 11.025293857941637, | 99 KM   | 20km/hr TO 30 |
|            |        | 79.52009203404697   |         | Km/Hr         |
| Sharp turn | Medium | 11.025869929947271, | 99.2 KM | 20km/hr TO 30 |
|            |        | 79.5218782671218    |         | Km/Hr         |
| Sharp turn | Medium | 11.02555684747551,  | 99.3 KM | 20km/hr TO 30 |
|            |        | 79.52288621292833   |         | Km/Hr         |
| Sharp turn | Medium | 10.758930085043158, | 100 KM  | 20km/hr TO 30 |
|            |        | 79.63474127328392   |         | Km/Hr         |
| Sharp turn | Medium | 10.758930085043158, | 101 KM  | 20km/hr TO 30 |
|            |        | 79.63851921337726   |         | Km/Hr         |
| Sharp turn | Medium | 10.746094107678449, | 102 KM  | 20km/hr TO 30 |
|            |        | 79.63206523238448   |         | Km/Hr         |

# <u>IOCL TIRCHY TERMINAL (10.7753, 78.8368) TO ATS AGENCIES</u> (10.746216, 79.63222) TOTAL DISTANCE – 102 KM



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.769073692604486, 78.83720120889187



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.764113439530249, 78.83446118711721



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.758209570013967, 78.83344387884853



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.751314343624747, 78.82530656733346



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.75126610223314, 78.82518044583597



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.749591316479634, 78.83018387464983



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.739318685033433, 78.8379420178455

**ALARP/JRM/TNSO/AST AGENCIES** 



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.735064036857814, 78.86553394452655



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.731428224715632, 78.90834087863155

**ALARP/JRM/TNSO/AST AGENCIES** 



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.7204752733678, 78.94043095175968

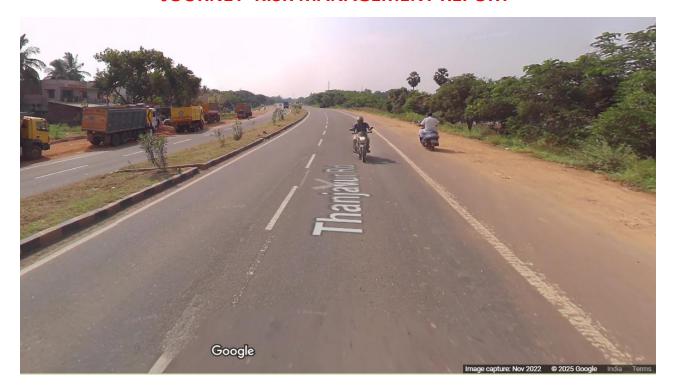


IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.730470193011778, 79.02491837645792



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.73562703051417, 79.10914681274313



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.74239869421108, 79.13924228433945



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.788233713059535, 79.5819171955509



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.776615322565446, 79.61612987354664



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.766279428253302, 79.62914116290698



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.758620545346869, 79.63857366410498



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.754726763874736, 79.63631854515144



IMAGE :- SHARP TURN RISK LEVEL :- MEDIUM COORDI: 10.74625066260726, 79.63222925203638

THANK YOU
YOUR DESTINATION IS HERE!