

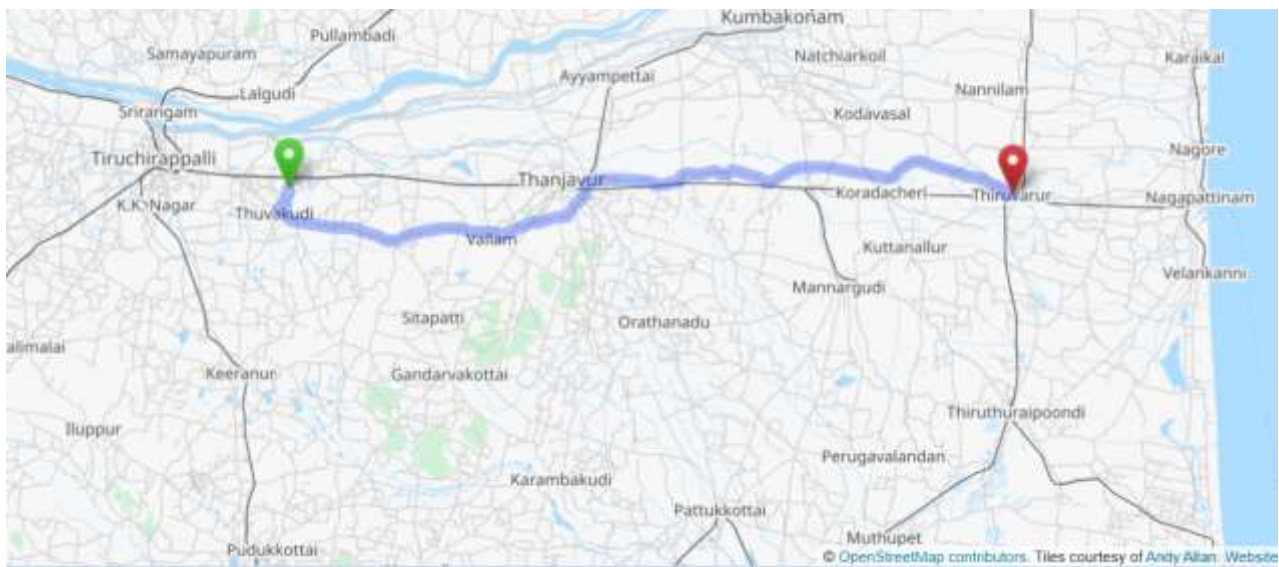
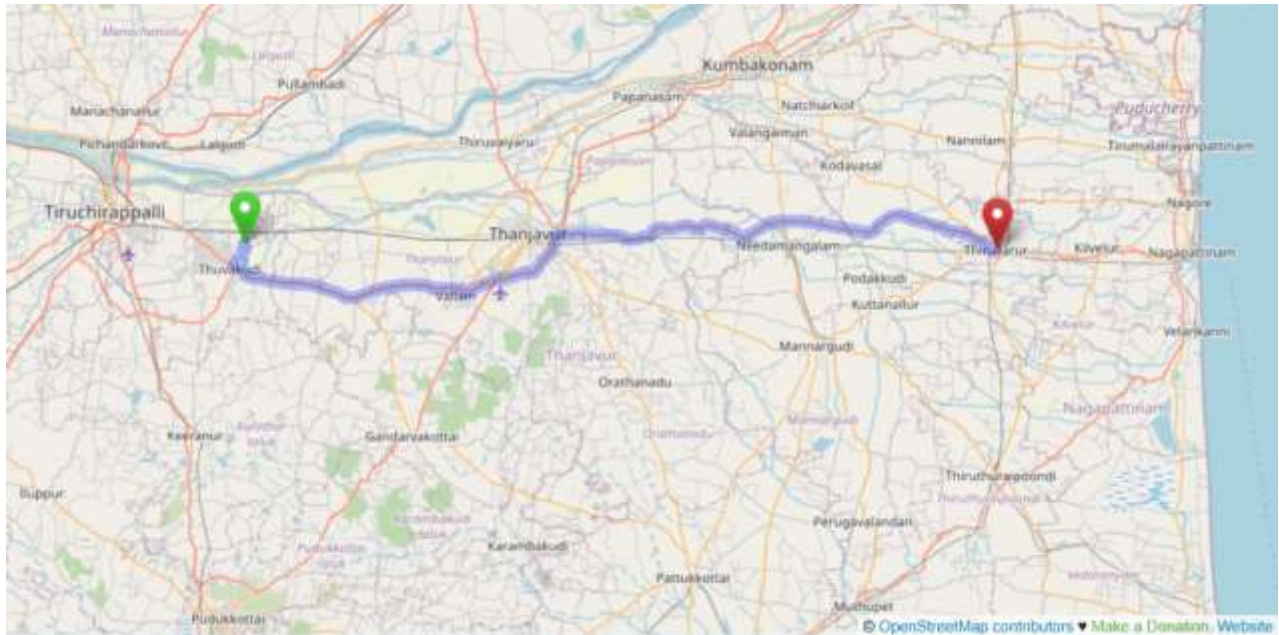


**IndianOil**

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

## JOURNEY RISK MANAGEMENT REPORT

**IOCL TIRCHY TERMINAL (10.7753, 78.8368) TO GOKUL AGENCIES (10.76663 , 79.635447) TOTAL DISTANCE – 99.9 KM**



**ALARP/JRM/TNSO/MKUMARAN**

## JOURNEY RISK MANAGEMENT REPORT

### **Welcome to the Journey Risk Management Study for GOKUL AGENCIES**

Total distance: 99.9 km; Start with: (10.7753 , 78.8368), End with: (10.76663 , 79.635447)

#### ❖ **Route Safety Analysis Report**

##### **1. Overview of the Route Map**

The route from Trichy Terminal (T.N) TO GOKUL AGENCIES IS Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, Follow NH 83 to Mayiladuthurai - Thiruthuraipoondi Rd/Panagal Rd in Santhamangalam, Thiruvavarur, Continue on Mayiladuthurai - Thiruthuraipoondi Rd/Panagal Rd to your destination, and Total distance from Trichy Terminal To GOKUL AGENCIES IS 99.9 KM.

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

**Weather Conditions:** Trichy Terminal (T.N) To GOKUL 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.

## JOURNEY RISK MANAGEMENT REPORT

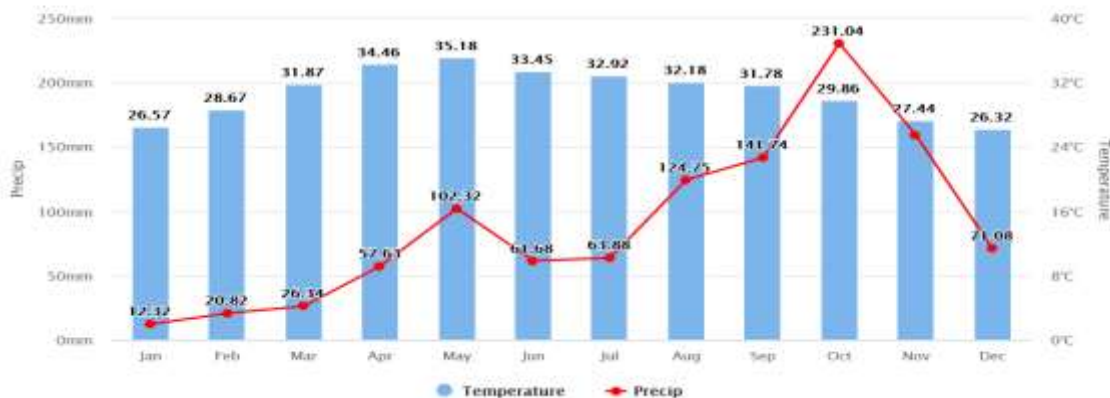
| Month                                 | Jan              | Feb              | Mar              | Apr               | May               | Jun              | Jul              | Aug              | Sep              | Nov              | Oct              | Dec              | Year             |
|---------------------------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Record high °C (°F)                   | 39.0<br>(91.4)   | 38.0<br>(100.4)  | 41.0<br>(105.8)  | 43.0<br>(109.4)   | 43.0<br>(109.4)   | 42.0<br>(107.6)  | 40.0<br>(104.0)  | 39.0<br>(102.2)  | 38.0<br>(100.4)  | 37.0<br>(98.6)   | 34.0<br>(93.2)   | 33.0<br>(91.4)   | 43.0<br>(109.4)  |
| Average high °C (°F)                  | 30.27<br>(86.49) | 32.88<br>(91.18) | 36.0<br>(96.8)   | 38.27<br>(100.89) | 38.79<br>(101.82) | 36.78<br>(98.2)  | 36.17<br>(97.11) | 35.4<br>(95.72)  | 35.03<br>(95.05) | 32.9<br>(91.22)  | 30.38<br>(86.68) | 29.34<br>(84.81) | 34.35<br>(93.83) |
| Daily mean °C (°F)                    | 26.57<br>(79.83) | 28.67<br>(83.61) | 31.87<br>(89.37) | 34.46<br>(94.03)  | 35.18<br>(95.32)  | 33.45<br>(92.21) | 32.92<br>(91.26) | 32.18<br>(89.92) | 31.78<br>(89.2)  | 29.86<br>(85.75) | 27.44<br>(81.39) | 26.32<br>(79.38) | 30.89<br>(87.6)  |
| Average low °C (°F)                   | 19.88<br>(67.78) | 20.93<br>(69.67) | 24.04<br>(75.27) | 27.62<br>(81.72)  | 28.89<br>(84.0)   | 27.59<br>(81.66) | 27.04<br>(80.67) | 26.45<br>(79.61) | 25.95<br>(78.71) | 24.64<br>(76.35) | 22.43<br>(72.37) | 20.93<br>(69.67) | 24.7<br>(76.46)  |
| Record low °C (°F)                    | 16.0<br>(60.8)   | 17.0<br>(62.6)   | 19.0<br>(66.2)   | 22.0<br>(71.6)    | 25.0<br>(77.0)    | 25.0<br>(77.0)   | 24.0<br>(75.2)   | 23.0<br>(73.4)   | 22.0<br>(71.6)   | 21.0<br>(69.8)   | 18.0<br>(64.4)   | 17.0<br>(62.6)   | 16.0<br>(60.8)   |
| Average precipitation mm (Inches)     | 12.32<br>(0.49)  | 20.82<br>(0.82)  | 26.34<br>(1.04)  | 57.63<br>(2.27)   | 102.32<br>(4.03)  | 61.68<br>(2.43)  | 63.88<br>(2.51)  | 124.75<br>(4.91) | 141.74<br>(5.58) | 231.04<br>(9.1)  | 159.62<br>(6.28) | 71.08<br>(2.8)   | 89.44<br>(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            |

**Weather-Related Hazards:** Trichy Terminal (T.N) To GOKUL 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 GOKUL 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:**

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## **JOURNEY RISK MANAGEMENT REPORT**

Typically, Trichy Terminal (T.N) To GOKUL 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 University Training & Research Centre (VUTRC)
- 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 waterlogging 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 waterlogging.

### **❖ Suggestions for Alternative Routes for Emergencies**

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



## **JOURNEY RISK MANAGEMENT REPORT**

**Alternative Route 2 -)** Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, At Jude Digital Studios, continue onto Thuvakudi to SIDCO & Indian oil Storage, Follow NH 83 and NH 36 to Chinnammal Kallarai/Kallanai - Poombuhar 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.

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 Pvt. 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,

## JOURNEY RISK MANAGEMENT REPORT

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 Pvt. 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).

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# JOURNEY RISK MANAGEMENT REPORT

## Overall Summary of Risk Assessment

- **Risk Level:** Moderate to High, especially during monsoon season.
- **Key Risks:** Waterlogging, 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

|   |  |  |   |
|---|--|--|---|
| <br>Stop                    | <br>Give way               | <br>No entry                                | <br>Straight prohibited   |
| <br>One way                | <br>One way               | <br>Vehicles prohibited in both directions | <br>Horn prohibited      |
| <br>Pedestrians prohibited | <br>Cycles prohibited     | <br>Right turn prohibited                  | <br>Left turn prohibited |
| <br>U-turn prohibited      | <br>Overtaking prohibited | <br>Trucks prohibited                      | <br>Tonga prohibited     |



















## JOURNEY RISK MANAGEMENT REPORT

|  |   |   |  |
|--|---|---|--|
|  <p>All motor vehicles prohibited</p> |  <p>Hand cart prohibited</p>   |  <p>Bullock cart prohibited</p> |  <p>Bullock and hand carts prohibited</p> |
|  <p>No parking</p>                    |  <p>No parking or stopping</p> |  <p>Speed limit</p>             |  <p>Axle load limit</p>                   |
|  <p>Width limit</p>                 |  <p>Weight limit</p>         |  <p>Length limit</p>          |  <p>Load limit</p>                      |
|  <p>Restriction and</p>             |   |   |  |



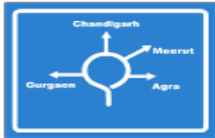

















## JOURNEY RISK MANAGEMENT REPORT

### Cautionary signs

|   |   |  |   |
|---|---|--|---|
|    |    |    |    |
| Right hand curve  | Left hand curve   | Right hand pin bend  | Left hand pin bend  |
|    |    |    |    |
| Right reverse bend  | Narrow bridge   | Gap in median  | Cycle crossing  |
|  |  |  |  |
| Pedestrian crossing   | School  | Men at work  | Roundabout  |
|  |  |  |  |
| Narrow road   | Road widens   | Side road left   | Side road right   |

# JOURNEY RISK MANAGEMENT REPORT

## Information signs

|   |   |  |   |
|---|---|--|---|
|    |    |    |    |
| Advance direction   | Map type advance direction  | Rotary intersection  | Reassurance   |
|    |    |    |    |
| Direction   | Direction   | Place identification   | Truck lay bay   |
|    |    |     |    |
| Toll booth ahead  | Parking this side   | Parking both sides   | Cycle stand   |
|    |    |    |    |
| Scooter and motor cycle stand   | Taxi stand  | Auto-rickshaw stand  | Cycle-rickshaw stand  |
|  |  |  |  |
| Public telephone  | Filling station   | Hospital   | First aid post  |

## Conclusion

The route for Trichy Terminal (T.N) To GOKUL 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.

## JOURNEY RISK MANAGEMENT REPORT

- Risk Assessment - Sharp Turns**

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

## JOURNEY RISK MANAGEMENT REPORT

|            |        |  |          |                     |
|------------|--------|--|----------|---------------------|
| Sharp turn | Medium | 10.720994881360893,<br>78.93834716298483 | 16.5 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.71915010256302,<br>78.9411152027286   | 16.8 KM  | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.71843327121256,<br>78.94211298444303  | 17 KM    | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.717263145760954,<br>78.94670492633878 | 17.5 KM  | 10km/hr TO 15 Km/Hr |
| Sharp turn | High   | 10.716985075928461,<br>78.95102478766644 | 18 KM    | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.71809195248243,<br>78.95607806951443  | 18. 5 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.725197170776585,<br>78.97692607372574 | 21 KM    | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.730780555846192,<br>79.01656126512937 | 25.3 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.730190246964545,<br>79.02046656130192 | 25.8 KM  | 10km/hr TO 15 Km/Hr |
| Sharp turn | High   | 10.730401071697452,<br>79.02480101090002 | 26.2 KM  | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.727139512814995,<br>79.03926391834526 | 27.9 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.726633527742022,<br>79.06514187050024 | 30.7 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.723049442647225,<br>79.07037754229201 | 31.4 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.736837396359547,<br>79.10561104002268 | 35.6 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.73612060698111,<br>79.11058922045575  | 36.2 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.742782466810393,<br>79.13346309881189 | 38.8 KM  | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.7432462617802,<br>79.14376278157714   | 39.9 KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.761628831100811,<br>79.15891189809322 | 42.6 KM  | 20km/hr TO 30 Km/Hr |

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## JOURNEY RISK MANAGEMENT REPORT

|            |        |  |         |                     |
|------------|--------|--|---------|---------------------|
| Sharp turn | High   | 10.769386276465765,<br>79.16457672365718 | 43.6 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | High   | 10.777523785773456,<br>79.16605658817572 | 44.5 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.778298856573569,<br>79.166124866062   | 44.6 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.780199262033587,<br>79.16753594256141 | 44.9 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.7806315094395,<br>79.1679076777507    | 45 KM   | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.79007090118994,<br>79.17526904315943  | 46.3 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.838732864147495,<br>79.19203106952445 | 52.1 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.841627556326298,<br>79.19288590968536 | 52.4KM  | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.864382116006672,<br>79.19247970116858 | 55 KM   | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.865459704381829,<br>79.19283694778355 | 55.1 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.86958207059273,<br>79.19625630830366  | 55.7 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.874421776457657,<br>79.20945572418708 | 57.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.874948023326985,<br>79.21073160495483 | 57.4 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.892892468546385,<br>79.2699895159846  | 64.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.906466254501833,<br>79.29083725124362 | 66.9 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.916839547699407,<br>79.29961531121639 | 68.4 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.92707467639872,<br>79.30628816788477  | 69.8 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.932649353273062,<br>79.3106134039501  | 70.6 KM | 20km/hr TO 30 Km/Hr |

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## JOURNEY RISK MANAGEMENT REPORT

|            |        |  |         |                        |
|------------|--------|--|---------|------------------------|
| Sharp turn | Medium | 10.935079628994828,<br>79.31465794598385 | 71.1 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.935881809725412,<br>79.32846053023889 | 72.6 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | High   | 10.939258924057162,<br>79.34295919658322 | 74.2 KM | 10km/hr TO 15<br>Km/Hr |
| Sharp turn | Medium | 10.940185918176494,<br>79.34528129965602 | 74.5 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.941250705135284,<br>79.34595751650197 | 74.6 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.947263547752911,<br>79.34723339730526 | 75.3 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.947639346359221,<br>79.34734822657435 | 75.4 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | High   | 10.951359726957488,<br>79.34788409653387 | 75.8 KM | 10km/hr TO 15<br>Km/Hr |
| Sharp turn | High   | 10.954090481533097,<br>79.3478713377262  | 76.1 KM | 10km/hr TO 15<br>Km/Hr |
| Sharp turn | Medium | 10.955480901997275,<br>79.34833065485216 | 76.2 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.966303410639958,<br>79.3521710560902  | 77.5 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.969722940404145,<br>79.3542890182272  | 78 KM   | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.97156420928446,<br>79.35704492074562  | 78.3 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.974244675466208,<br>79.36227603209447 | 79 KM   | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | Medium | 10.980554084386217,<br>79.37598180044225 | 80.6 KM | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | High   | 10.98099246669875,<br>79.37766596305566  | 80.8 KM | 10km/hr TO 15<br>Km/Hr |
| Sharp turn | Medium | 10.98218952078963,<br>79.38795972392433  | 82 KM   | 20km/hr TO 30<br>Km/Hr |
| Sharp turn | High   | 10.982640425804044,<br>79.3888273228464  | 82.1 KM | 10km/hr TO 15<br>Km/Hr |

## JOURNEY RISK MANAGEMENT REPORT

|            |        |  |         |                     |
|------------|--------|--|---------|---------------------|
| Sharp turn | Medium | 10.983366882411035,<br>79.39262944775143 | 82.5 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.981650938874413,<br>79.39447947486467 | 82.8 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.98558381666939,<br>79.39865160526288  | 83.5 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.98891544919475,<br>79.40207096583704  | 84 KM   | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.991407886549627,<br>79.40846312864453 | 84.7 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | High   | 10.991996549570876,<br>79.40934348637427 | 84.9 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 10.994401288511858,<br>79.41132110176441 | 85.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.998571961052205,<br>79.41860638109635 | 86.1 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 10.999598964467538,<br>79.42000985011298 | 86.3 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.000388001231217,<br>79.42383749269939 | 86.8 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.00311830263473,<br>79.43131415417443  | 87.7 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.00507208079757,<br>79.43547352563432  | 88.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.006487309414123,<br>79.43631560694104 | 88.3 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.007864959118875,<br>79.4382804634414  | 88.6 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.00829077679642,<br>79.43949255017075  | 88.7 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.009455510263674,<br>79.44302674003897 | 89.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.011597104967523,<br>79.4519068706572  | 90.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.0243962523845,<br>79.47167026450096   | 92.2 KM | 20km/hr TO 30 Km/Hr |

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## JOURNEY RISK MANAGEMENT REPORT

|            |        |  |         |                     |
|------------|--------|--|---------|---------------------|
| Sharp turn | Medium | 11.025423165698344,<br>79.47270372792285 | 92.9 KM | 20km/hr TO 30 Km/Hr |
|            | High   | 11.026951005699203,<br>79.4765186114184  | 93.4 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 11.024070644939572,<br>79.4784324327326  | 93.8 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.023557186369509,<br>79.47919796119325 | 93.9 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.02231736807814,<br>79.47914692596254  | 94 KM   | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.019424438352559,<br>79.48134144096412 | 94.4 KM | 20km/hr TO 30 Km/Hr |
|            | High   | 11.018159555404297,<br>79.4812904057334  | 94.6 KM | 10km/hr TO 15 Km/Hr |
| Sharp turn | Medium | 11.01849769296255,<br>79.48245145723206  | 94.7 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.021536838841904,<br>79.49363026592134 | 96 KM   | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.022601332462624,<br>79.50214039095387 | 96.9 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.022263199620792,<br>79.50313557795272 | 97 KM   | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.024905634862868,<br>79.5124239902946  | 98.1 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.025757220292181,<br>79.51474609329189 | 98.4 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.025293857941637,<br>79.52009203404697 | 99 KM   | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.025869929947271,<br>79.5218782671218  | 99.2 KM | 20km/hr TO 30 Km/Hr |
| Sharp turn | Medium | 11.02555684747551,<br>79.52288621292833  | 99.3 KM | 20km/hr TO 30 Km/Hr |

- **Risk Assessment - Elevation Changes**

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## JOURNEY RISK MANAGEMENT REPORT

| Risk Type        | Specific Risk | Risk Level | Coordination          | Elevation Change | Gradient | Recommendation Speed |
|------------------|---------------|------------|-----------------------|------------------|----------|----------------------|
| Elevation Change | Descent       | Low        | 10.7753, 78.8368      | -3.02m           | -2.96 %  | 40 km/hr to 50 km/hr |
| Elevation Change | Descent       | Low        | 10.993921 , 78.326323 | -9.28m           | -6.28%   | 40 km/hr to 50 km/hr |

**IOCL TIRCHY TERMINAL (10.7753, 78.8368) TO M KUMARAN AGENCIES (10.999663 , 79.757545) TOTAL DISTANCE – 129 KM**

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## JOURNEY RISK MANAGEMENT REPORT



10.769073692604486, 78.83720120889187



10.764113439530249, 78.83446118711721

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## JOURNEY RISK MANAGEMENT REPORT



10.758209570013967, 78.83344387884853



10.751314343624747, 78.82530656733346

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## JOURNEY RISK MANAGEMENT REPORT



10.75126610223314, 78.82518044583597



10.749591316479634, 78.83018387464983

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## JOURNEY RISK MANAGEMENT REPORT



10.739318685033433, 78.8379420178455



10.735064036857814, 78.86553394452655

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## JOURNEY RISK MANAGEMENT REPORT



10.731428224715632, 78.90834087863155



10.7204752733678, 78.94043095175968

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## JOURNEY RISK MANAGEMENT REPORT



10.730470193011778, 79.02491837645792



10.73562703051417, 79.10914681274313

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## JOURNEY RISK MANAGEMENT REPORT



10.74239869421108, 79.13924228433945



10.762835880662, 79.15885726520942

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## JOURNEY RISK MANAGEMENT REPORT



10.86508872374555, 79.19199892851083



10.983050192850786, 79.38667088419274

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## JOURNEY RISK MANAGEMENT REPORT



10.982396440646552, 79.39381342050322



10.991527724757828, 79.40666540897624

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## JOURNEY RISK MANAGEMENT REPORT



11.022490944084682, 79.47018786867453



11.020753919153844, 79.48026079789986

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## JOURNEY RISK MANAGEMENT REPORT



11.025034923081758, 79.51157592396632



11.023925682876909, 79.54964609748217

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## JOURNEY RISK MANAGEMENT REPORT



11.020796340114492, 79.57002911069338



11.030567315845762, 79.64618607370501

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## JOURNEY RISK MANAGEMENT REPORT



11.035056727149064, 79.69758118226147



11.023171839859797, 79.74250926065046

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## JOURNEY RISK MANAGEMENT REPORT



11.018557613909389, 79.7438048210319



11.014873176444688, 79.74559925553021

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## JOURNEY RISK MANAGEMENT REPORT



10.78803817396084, 79.57646890961011



10.766662485597074, 79.62948446362354

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# JOURNEY RISK MANAGEMENT REPORT

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