COMPREHENSIVE JOURNEY RISK MANAGEMENT ANALYSIS REPORT

ROUTE ANALYSIS DETAILS

Supply Location: Raipur Depot [1527]

Destination: MSHSD SUGAN PETROLEUM [41015467]

Total Distance: 298.3 km

Estimated Duration: 7 hours 27 mins

Analysis Date: August 05, 2025 Report Generated: 12:38 PM

EXECUTIVE SUMMARY

ROUTE OVERVIEW

PARAMETER	DETAILS
Origin	Raipur Depot
Destination	MSHSD SUGAN PETROLEUM
Total Distance	298.3 km
Estimated Duration	7 hours 27 mins
Major Highways	NH30
Terrain	Mixed

TOTAL WEIGHTED ROUTE SCORE – 3.0 [HIGH RISK]

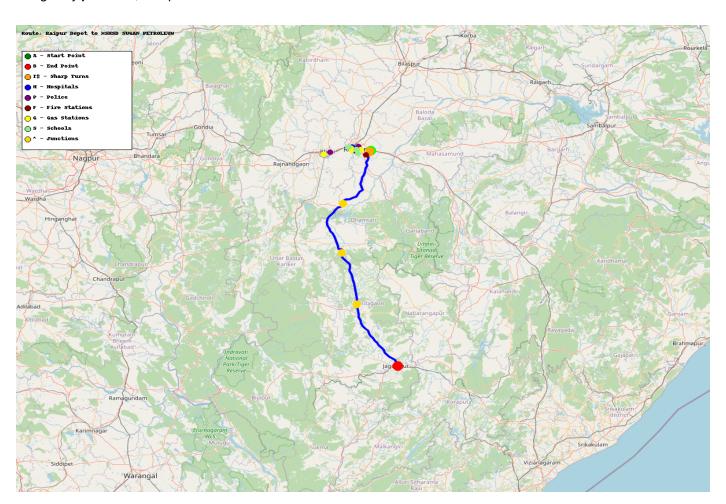
RISK FACTOR RATING OVERVIEW

RISK CRITERION	RISK SCORE	RISK CATEGORY
Road Conditions	1.0	Low Risk
Accident-Prone Areas	5.0	High Risk
Sharp Turns	5.0	High Risk
Blind Spots	5.0	High Risk
Traffic Condition (Density)	0.5	Low Risk
Seasonal Weather Conditions	1.0	Low Risk
Emergency Handling Services	0.5	Low Risk
Network Dead/Low Zones	2.1	Mild Risk
Roadside Amenities	1.0	Low Risk
Security & Social Issues	1.0	Low Risk

APPROVED ROUTE MAP

Comprehensive route visualization showing start/end points, critical turns, emergency services,

highway junctions, and potential hazards.



MAP LEGEND

- A Route Start Point
- T# Critical Sharp Turns
- P Police Stations
- **G** Gas Stations
- * Highway Junctions

- **B** Route End Point
- **H** Hospitals
- F Fire Stations
- S Schools/Education

KEY SAFETY MEASURES & REGULATORY COMPLIANCE

ASPECT	DETAILS/ RECOMMENDATION
Speed Limits	NH: 60 km/h; SH: 55 km/h; MDR: 55 km/h; Rural: 25–30 km/h; Accident-prone zone: 30
Night Driving	Prohibited:2300hrs – 0500hrs
Rest Breaks	Mandatory 15-30 min every 3 hours
Vehicle Compliance	Check brakes, tires, lights, and emergency equipment
Permits & Documents	Carry valid transport permits, Hazardous vehicle license,MSDS sheets, TREM CARD
VTS	VTS & EMERGENCY LOCKING DEVICE shall be functional

Ensure all applicable local, state, and national transport regulations are met prior to journey commencement, including permits, documentation, and vehicle checks.

Туре	Supply (KM)	Customer (KM)	Coordinates		Risk Level	Speed Limit	Driver Action
Sharp Turn (Right)	0.0	298.3	21.225530, 81.783160	[view]	Very High	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Severe Blind Spot	0.1	298.2	21.225450, 81.783610	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Severe Blind Spot	0.1	298.2	21.225430, 81.783710	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Hairpin Turn (Left)	0.1	298.2	21.224990, 81.783670	horn, proce		Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution	
Severe Blind Spot	0.2	298.1	21.225250, 81.784530	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Severe Blind Spot	0.4	297.9	21.226120, 81.783330	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Severe Blind Spot	0.5	297.8	21.226740, 81.783460	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Hairpin Turn (Right)	1.8	296.5	21.229070, 81.770440	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	2.2	296.1	21.226220, 81.768880	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	2.5	295.8	21.223330, 81.769820	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	4.2	294.1	21.214310, 81.780390	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Sharp Turn (Left)	4.7	293.6	21.217490, 81.782590	[view]	Very High	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Right)	4.7	293.6	21.217600, 81.782650	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	7.2	291.1	21.196640, 81.774990	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution

Туре	Supply (KM)	Customer (KM)	Coordinates		Risk Level	Speed Limit	Driver Action
Hairpin Turn (Left)	8.2	290.1	21.187640, 81.771690	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Severe Blind Spot	8.3	290.0	21.187100, 81.771450	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Sharp Turn (Right)	14.9	283.4	21.130600, 81.752300	[view]	Very High	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Moderate Turn (Right)	15.8	282.5	21.133360, 81.743890	[view]	High	20-25 km/h	Reduce speed to 20 km/h before turn, use horn, check mirrors, stay in center of lane
Hairpin Turn (Left)	17.8	280.5	21.117670, 81.736320	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	17.9	280.4	21.117310, 81.735870	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	18.1	280.2	21.115760, 81.736640	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Sharp Turn (Right)	70.1	228.2	20.740940, 81.576150	[view]	Very High	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	81.0	217.3	20.687730, 81.517540	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	102.3	196.0	20.560890, 81.372300	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	102.7	195.6	20.557760, 81.370670	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Network Dead Zone	113.3	185.0	20.565330, 81.372300	[view]	CRITICAL	Normal	Inform control room before entering, use alternative communication
Hairpin Turn (Left)	133.6	164.8	20.307040, 81.465810	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
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Туре	Supply (KM)	Customer (KM)	Coordinates		Risk Level	Speed Limit	Driver Action
Hairpin Turn (Right)	143.6	154.7	20.244160, 81.509810	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Severe Blind Spot	163.3	135.0	20.105900, 81.585060	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Severe Blind Spot	164.9	133.4	20.104820, 81.587520	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Moderate Turn (Right)	166.3	132.0	20.102950, 81.586160	[view]	Very High	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Severe Blind Spot	166.5	131.8	20.102670, 81.587800	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Severe Blind Spot	166.7	131.6	20.102660, 81.586500	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Severe Blind Spot	166.7	131.6	20.102610, 81.586500	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic
Moderate Turn (Left)	167.1	131.2	20.102100, 81.586930	[view]	High	20-25 km/h	Reduce speed to 20 km/h before turn, use horn, check mirrors, stay in center of lane
Hairpin Turn (Left)	229.1	69.2	19.567790, 81.672220	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Network Dead Zone	234.3	64.0	19.986310, 81.604460	[view]	CRITICAL	Normal	Inform control room before entering, use alternative communication
Hairpin Turn (Left)	297.2	1.1	19.091980, 82.042990	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	297.6	0.8	19.089890, 82.040180	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution
Hairpin Turn (Left)	297.9	0.4	19.086720, 82.040150	[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution

Туре	Supply (KM)	Customer (KM)	Coordinates	Coordinates I		Speed Limit	Driver Action		
Sharp Turn (Left)	298.0	0.3	19.086630, 82.041110	[view]	Very High	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution		
Severe Blind Spot	298.0	0.3	.3 19.086840, 82.041230 [view] Very High		Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic		
Severe Blind Spot	Blind Spot 298.1 0.2 19.086730, 82.0419		19.086730, 82.041900	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic		
Severe Blind Spot	298.1	0.2	19.086680, 82.041970	[view]	Very High	15-20 km/h	Use horn before entering, reduce speed to 20-25 km/h, stay alert for oncoming traffic		
Hairpin Turn (Left)	in Turn (Left) 298.1 0.2 19.086380, 82.041950		[view]	CRITICAL	10-15 km/h	Stop completely, check visibility, use horn, proceed at 10-15 km/h with extreme caution			
Network Dead Zone	299.5	0.0	19.086340, 82.042560	[view]	CRITICAL	Normal	Inform control room before entering, use alternative communication		

All high-risk points are sorted by distance from supply location. Please exercise extreme caution at these locations.

SEASONAL ROAD CONDITIONS & TRAFFIC PATTERNS

Season / Condition	Critical Stretches / Coordinates / Roads	Link	Typical Challenges	Driver Caution
Summer - Cloudy	19.0863, 82.0434 (highway)	view	Moderate heat, normal conditions	Standard summer precautions
Monsoon - Cloudy	19.0863, 82.0434 (highway)	view	Heavy moisture (92.9%), waterlogging risk, poor visibility	Use wipers, reduce speed, avoid flooded areas
Winter - Clear	19.0863, 82.0434 (highway)	view	Cool weather, possible mist	Check visibility, use headlights
Summer - Cloudy	19.7026, 81.6543 (Highway)	view	Moderate heat, normal conditions	Standard summer precautions
Monsoon - Cloudy	19.7026, 81.6543 (Highway)	view	Heavy moisture (94.8%), waterlogging risk, poor visibility	Use wipers, reduce speed, avoid flooded areas
Winter - Partly Cloudy	19.7026, 81.6543 (Highway)	view	Cool weather, possible mist	Check visibility, use headlights
Summer - Cloudy	20.2103, 81.5089 (highway)	view	High temperature (30.8°C), dust, glare	Carry water, use sun protection, check tire pressure
Monsoon - Cloudy	20.2103, 81.5089 (highway)	view	Heavy moisture (94.7%), waterlogging risk, poor visibility	Use wipers, reduce speed, avoid flooded areas
Winter - Partly Cloudy	20.2103, 81.5089 (highway)	view	Cool weather, possible mist	Check visibility, use headlights
Summer - Cloudy	20.7031, 81.5196 (Highway)	view	High temperature (32.7°C), dust, glare	Carry water, use sun protection, check tire pressure
Monsoon - Partly Cloudy	20.7031, 81.5196 (Highway)	view	Heavy moisture (91.9%), waterlogging risk, poor visibility	Use wipers, reduce speed, avoid flooded areas
Winter - Partly Cloudy	20.7031, 81.5196 (Highway)	view	Cool weather, possible mist	Check visibility, use headlights
Summer - Partly Cloudy	21.2255, 81.7832 (highway)	view	High temperature (33.1°C), dust, glare	Carry water, use sun protection, check tire pressure
Monsoon - Partly Cloudy	21.2255, 81.7832 (highway)	view	Heavy moisture (90.6%), waterlogging risk, poor visibility	Use wipers, reduce speed, avoid flooded areas
Winter - Partly Cloudy	21.2255, 81.7832 (highway)	view	Cool weather, possible mist	Check visibility, use headlights

WEATHER-RELATED ACCIDENT-PRONE AREAS & CORRECTIVE MEASURES

Area	Weather Risk	Risk Type	Recommended Solution		
NH30	Summer Heat	Tire Blowouts	Shade shelters, road resurfacing		
Route Segments	Monsoon Rain	Hydroplaning	Better drainage, grooved pavement		
Oil Terminal Junctions Winter Fog Poor Visibilit		Poor Visibility	Fog lights, reflective markers		
Urban Sections	Dust Storms	Visibility Loss	Wind barriers, warning systems		

COMPREHENSIVE POINTS OF INTEREST ANALYSIS

Perameters	Value
Total POIs Identified	343
Emergency Services	327
Essential Services	0
Other Services	16
Coverage Score	75.00

EMERGENCY PREPAREDNESS & RESPONSE

MEDICAL FACILITIES - Emergency Healthcare Services- CRITICAL

id	Facility Name	Address	From Supply (km)	From Customer (km)	Coordinates	Link	Phone
1	Mgm Eye Hospital	5Th Mile, Vidhan Sabha Road	1.8	296.5	21.278310, 81.702664	View	Not available
2	Sarvodaya Hospital and Maternity Center	Dubey Colony, Mowa, Near Mowa Police Station	2.1	296.2	21.271556, 81.671044	View	Not available
3	Shri Balaji Institute Of Medical Science Pvt Ltd	Ekta Chow Duby Colony, Near Moina Police Station	2.1	296.2	21.272425, 81.671749	View	Not available
4	Arihant Hospital	Not Available	2.1	296.2	21.270657, 81.669903	View	Not available
5	bagri nursing home	budhapara, Raipur	2.2	296.1	21.241438, 81.623200	View	Not available
6	Ramkrishna Care Hospital	(Ramkrishna Care Medical Sciences Pvt Ltd) Aurobindo Enclave,Pachpedi Naka,Dhamatri Road	2.2	296.1	21.213081, 81.653724	View	+91 7713003300
7	Narayana Hrudayalaya Mmi Hospital (Managed By Narayana Hrudayalaya Pvt Ltd - Bangalore) - Raipur	Dhamtari Road, Lalpur Near Pachpedi Naka	2.2	296.1	21.213261, 81.657736	View	+91 7714210901
8	Suyash Superspeciality Hospital	Kota Gudhiyari Road, Behind Hotel Piccadilly	2.2	296.1	21.258494, 81.606027	View	+91 7712575275
9	Shri Ganesh Vinayak Eye Hospital	Infront of colors mall, Dhamtari road, Raipur	2.2	296.1	21.213169, 81.656178	View	+91 7714077741
10	Vardaan Hospital (Unit Of Jindal Medicare)	Sector - 1, Shankar Nagar	2.2	296.1	21.252011, 81.663241	View	+91 7712425778
11	Bal Gopal Children Hospital and Research Institute	Opposite Ashirwad Bhawan, Byron Bazar	2.2	296.1	21.234934, 81.641332	View	+91 7714225600
12	Yashwant Hospital	TatyaparaChowk, GE road, Tatyapara Raipur, Raipur	2.2	296.1	21.240320, 81.629351	View	+91 7712539333

13	Mittal Hospital	Beside crystal arcade, raipur	2.2	296.1	21.260362, 81.658715	View	Not available
14	jain mandir	Not Available	2.2	296.1	21.227486, 81.648076	View	Not available
15	chandak hospital	Not Available	2.2	296.1	21.227866, 81.648436	View	Not available
16	sukriti hospital	Not Available	2.2	296.1	21.250635, 81.649911	View	Not available
17	Shri Sai Ganesh Hospital	Gudhiyari,	2.2	296.1	21.266195, 81.618122	View	Not available
18	Om Hospital	Not Available	2.2	296.1	21.231444, 81.603031	View	Not available
19	mandi gate	Not Available	2.2	296.1	21.266318, 81.663904	View	Not available
20	Navkar Hospital and Maternity Home	C-63, Shailendra Nagar, Near Rajendra Nagar Police Chowki	2.2	296.1	21.228414, 81.654533	View	Not available
22	hospital pt. rsu	Not Available	2.2	296.1	21.242828, 81.593609	View	Not available
23	Nursing Home	Not Available	2.2	296.1	21.228416, 81.665261	View	Not available
24	Dispensary	GE Road, raipur	2.2	296.1	21.251487, 81.602359	View	Not available
25	Karma Hospital	Telibandha	2.2	296.1	21.240176, 81.662258	View	Not available
26	Chhattisgarh Eye Hospital	Near Shyam Nagar	2.2	296.1	21.239211, 81.662194	View	Not available
27	Devi Laxmi Hospital	B-19/5 Ring Road Tagore Nagar	2.2	296.1	21.223314, 81.652299	View	Not available
28	Sanjeevani Cbcc Usa Cancer Hospital	Infront Of Jain Mandir, Near Ramkrishna Care Hospital,Dawada Colony,Pachpedi Naka	2.2	296.1	21.214265, 81.650323	View	Not available
29	Aashirwad Fertility and Endoscopy Center	Danganiya Near Shitla Mandir	2.2	296.1	21.234649, 81.607793	View	Not available
30	Samarpan Hospital, Raipur	Om Santi Niketan School Adarsh Nagar Mowa	2.2	296.1	21.265009, 81.667934	View	Not available
31	Sai Sushrusha Hospital	Behind Aashirwad Bhawan,Byron Bazar	2.2	296.1	21.235207, 81.641824	View	Not available
32	Sai Kalayan Hospital And Icu	Near Jagannath Mandir, Gayatri Nagar	2.2	296.1	21.249993, 81.668457	View	Not available
33	Sai Baba Eye Hospital	Near Choti Line, Fafadih	2.2	296.1	21.259522, 81.637010	View	Not available
34	Prannath Mission Hospital	Street No. 4, Sanmati Nagar, Near Jain Mandir, Fafadih	2.2	296.1	21.264706, 81.639565	View	Not available
35	Piles Care Hospital	Raja Talab Road, Near Ghari Chowk	2.2	296.1	21.245402, 81.646810	View	Not available

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36	Tharani Children Hospital And Dental Clinic	Opposite Vijayta Complex. Main Road, New Rajendra Nagar	2.2	296.1	21.224820, 81.659572	View	Not available
37	Dr. M.R. Bhagwat Memorial Hospital	7, South Avenue, Choubey Colony	2.2	296.1	21.243937, 81.614507	View	Not available
38	Kalda Plastic and Cosmetic Surgery Institute and Burn Centre	G.E. Road,Choubey Colony	2.2	296.1	21.216615, 81.657255	View	Not available
39	Vidya Hospital And Kidney Centre	Shankar Nagar Main Road	2.2	296.1	21.249141, 81.661708	View	Not available
40	Shri Aurobindo Medical Research Centre	Pachmedi Naka, Dhamtari Road	2.2	296.1	21.214578, 81.654260	View	Not available
41	Shree Sai Care Hospital	Infront Of Dwarika Mandir New Tilak Society, Avanti Vihar, Telibandha Road	2.2	296.1	21.239890, 81.669839	View	Not available
42	Shree Medishine Hospital - Raipur	New Rajendra Nagar Amlidih Near Drowanacharya School	2.2	296.1	21.220032, 81.665576	View	Not available
43	Visharad Hospital	Opposite Subhash Stadium	2.2	296.1	21.239116, 81.641342	View	Not available
44	Urmila Memorial Multispeciality Hospital	Behind Cg Elite Building, Ashoka Gali, Pandari	2.2	296.1	21.258282, 81.655330	View	Not available
45	Upadhyay Hospital, Raipur	Arjun Vihar Heerapur Road, Opp: Harshit Tower	2.2	296.1	21.262591, 81.587367	View	Not available
46	Subham Hospital and Maternity Home	Near Shukrari Bazar, Gudhiyari	2.2	296.1	21.259987, 81.628292	View	Not available
47	Subba Rao Hospital	Near Hotel Celebration, Bastar Bada, Bastar Bada Jail Road	2.2	296.1	21.257069, 81.637343	View	Not available
48	Srimaa Sarada Arogyadham	Madhav Rao Sapre Ward, a	2.2	296.1	21.230805, 81.595480	View	Not available
49	Sobhagya Hospital	Sivanand Nagar Sector-1 Near Hawa Ghar	2.2	296.1	21.274047, 81.633574	View	Not available
50	Shri Ram Hospital, Raipur	Daganiya Road, Sundar Nagar Road	2.2	296.1	21.236105, 81.611706	View	Not available
51	Pathak Hospital, Raipur	Nand Kumar Pathak Fafadih Naka	2.2	296.1	21.264633, 81.635818	View	Not available
52	Gbg Kidney Care Hospital	New Rajendra Nagar	2.2	296.1	21.225932, 81.658553	View	Not available
53	Modi Hospital	Samta Colony, Main Road	2.2	296.1	21.246212, 81.618691	View	Not available
54	Jagjivan Urology Centre	B-4 Samta Colony Main Road	2.2	296.1	21.246170, 81.623908	View	Not available
55	Sahai Hospital	Tagore Nagar Square	2.2	296.1	21.223045, 81.656616	View	Not available
56	Pragya Hospital, Raipur	13, Anand Nagar	2.2	296.1	21.244383, 81.660184	View	Not available

57	P D Jethani Memorial Hospital and Diagnostic Center	Near Khamtarai Bazar	2.2	296.1	21.278998, 81.637641	View	Not available
58	Nigam Ent Hospital	Shanti Nagar	2.2	296.1	21.247297, 81.656896	View	Not available
59	Ganpati Hospital (Banthia Hospital)	Rajatalab Road	2.2	296.1	21.245884, 81.647497	View	Not available
60	Yashwant Hospital, Raipur	Tatyapara	2.2	296.1	21.239906, 81.627510	View	Not available
61	Tripathi Hospital, Raipur	New Shanti Nagar	2.2	296.1	21.249508, 81.657981	View	Not available
62	Jeewan Memorial Hospital For Plastic Surgery and Uro	New Shanti Nagar	2.2	296.1	21.249610, 81.658094	View	Not available
63	Om Netra Kendra	Main Road Pandri	2.2	296.1	21.248704, 81.644897	View	Not available
64	Roopjeevan Hospital	Sai Nagar Devendra Nagar Road	2.2	296.1	21.256700, 81.641010	View	Not available
65	Jubesta Hospital	Devendra Nagar	2.2	296.1	21.257246, 81.643507	View	Not available
66	Jain Hospital, Raipur	B 162, Sector-1, Devendra Nagar	2.2	296.1	21.255903, 81.644867	View	Not available
67	Dr. Rajehwari Kulkarni Surgical Hospital And Dia	Sector-1, B/15, Devendra Nagar	2.2	296.1	21.257391, 81.646686	View	Not available
68	Ekta Institute Of Child Health	Raipur	2.2	296.1	21.247121, 81.656621	View	Not available
69	Ayush Hospital and Maternity Home	C-9 Ashoka Ratan, Vidhan Sabha Road Shankar Nagar	2.2	296.1	21.262312, 81.673950	View	Not available
70	Ayushman Hospital and Diagnostic Institute	Opp:Sunder Nagar Gate Mahender Ghat Road	2.2	296.1	21.234582, 81.609779	View	Not available
71	Bachpan Hospital	Mahadev Ghat Road, Ring Road Chowk	2.2	296.1	21.229368, 81.600005	View	Not available
72	Bhattar Hospital	Near Mahila Thana, Aashirwad Bhawan	2.2	296.1	21.242349, 81.639547	View	Not available
73	City Hospital And Research Centre	Geeta Nagar, Choubey Colony	2.2	296.1	21.246552, 81.610064	View	Not available
74	Devkripa Hospital and Doctor Plaza	Kuehna Road, Infront Of Cseb Sub Station Shankar Nagar	2.2	296.1	21.251006, 81.668532	View	Not available
75	Dr. Jaulkar Ent Hospital	Purani Basti Thana Chowk, Kankalipara Road	2.2	296.1	21.247158, 81.612342	View	Not available
76	Dr. Sandeep Bhagwat Orthopedic Hospital	B-20, Ravi Nagar, Near Bus Stand, Pandri	2.2	296.1	21.249111, 81.645312	View	Not available
77	Eye and Ent Hospital	Near New Bus Stand, Beside Rajgharana	2.2	296.1	21.249599, 81.646138	View	Not available
78	Heritage Hospital, Raipur	Sec-2, Devendra Nagar	2.2	296.1	21.260440, 81.642982	View	Not available

Continued on next page... (Showing 77 of 225 total records)

79	K G N Surical and Maternity Centre	Fawara Chowk, Byron Bazar	2.2	296.1	21.234259, 81.645458	View	Not available
80	K.M. Hospital	Behind Indian Coffee House, Banstal	2.2	296.1	21.243852, 81.638420	View	Not available
81	M. M. Hospital	Jailaxmi Complex, Main Road	2.2	296.1	21.260532, 81.636726	View	Not available
82	Mahadev Hospital	Opposite Lpg Petrol Pump, Mahadev Ghat Road	2.2	296.1	21.229445, 81.597827	View	Not available
83	Mishra Speciality Hospital	Road Next To Sbi, Near Patidar Bhavan, Fafdih	2.2	296.1	21.261584, 81.638041	View	Not available
84	Matra Smriti Hospital	Gondwara Road Near Chirkuti Mandir	2.2	296.1	21.268616, 81.619790	View	Not available
85	M D Hospital and Iccu	358, Samta Colony	2.2	296.1	21.246587, 81.623699	View	Not available
86	Suprita Hospital	Jail Road	2.2	296.1	21.256435, 81.638850	View	Not available
87	Lifeworth Super Speciality Hospital	Main Road, Samata Colony	2.2	296.1	21.245699, 81.617588	View	Not available
88	Shri Manulal Memorial Medical Centre	Lakhe Nagar Chowk, Opposite Mai Ki Bagiya, Lakhe Nagar	2.2	296.1	21.236331, 81.621329	View	Not available
89	Sahu Hospital, Raipur	7150, Devendra Nagar, Near Sai Mandir	2.2	296.1	21.255470, 81.640680	View	Not available
90	Agrasen Hospital	Opp: Krishna Talkies Ramanath Bhimsen Bhawan	2.2	296.1	21.245422, 81.624599	View	Not available
91	Pt.J N M Medical College Hospital	Pt.Jawaharlal Nehru Memorial Medical College, Jail Road	2.2	296.1	21.251975, 81.639143	View	Not available
92	Kanwar Hospital, Raipur	Gaushala Road, Near Telephone Exchange	2.2	296.1	21.253272, 81.665184	View	Not available
93	Raipur Hospital	Kutchery Chowk	2.2	296.1	21.246846, 81.641529	View	Not available
94	Sanjeewan Hospital, Raipur	Near Postal Colony, Sanjay Nagar	2.2	296.1	21.220807, 81.641014	View	Not available
95	Arihant Netralaya	Bijali Office Chowk, Bhudha Para	2.2	296.1	21.235960, 81.638121	View	Not available
96	Govt. T.B. Hospital	Kali Badi chowk, Raipur	2.2	296.1	21.234692, 81.638936	View	Not available
97	Government hospital,Khokhopara	Chandwada, Patel Para, Raipur	2.2	296.1	21.232390, 81.622325	View	Not available
98	District Hospital Raipur	Janta Colony, Raipur,	2.2	296.1	21.231739, 81.640180	View	Not available
99	Shri Khudadad Dungaji Government Ayurved College Hospital	Great Eastern Road, Near NIt College, opposite to Central Library, Raipur	2.2	296.1	21.244933, 81.605817	View	Not available
100	Government Hospital	Kashiram Nagar, Sai Vihar Colony, Raipur	2.2	296.1	21.230022, 81.659879	View	Not available
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Continued on next page... (Showing 99 of 225 total records)

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101	Labhandhi Government Hospital	Behind of labhandi School	2.2	296.1	21.244877, 81.703673	View	Not available
102	Shri Balaji Hospital	Raipur Road, RDA Colony, Tikrapara	2.2	296.1	21.226149, 81.639710	View	Not available
103	Jeevan Anmol Hospital	Near MLA Guest House, Tagore Nagar, Raipur, Chhattisgarh	2.2	296.1	21.225057, 81.653199	View	Not available
104	Madhumeet Hospital	Shiv Mandir Chowk, Avanti Vihar Road, near Radha Krishna Mandir, Shankar Nagar, Raipur	2.2	296.1	21.240165, 81.669886	View	Not available
105	Shri Krishna Hospital	Main Road, Sector 2, Priyadarshini Nagar Colony, New Rajendra Nagar, Raipur	2.2	296.1	21.223641, 81.660207	View	Not available
106	Raipura Hospital	Mahadev Ghat Road, Maitri Nagar, Sunder Nagar, Raipur	2.2	296.1	21.232150, 81.603544	View	Not available
107	Awasthi Hospital	Katora Talab Main Road, Janta Colony, Raipur, Chhattisgarh	2.2	296.1	21.231624, 81.654007	View	Not available
108	Om Superspeciality Hospital	Vikas Vihar Colony, Changurabhata, Raipur, Chhattisgarh	2.2	296.1	21.229254, 81.598673	View	Not available
109	Kankali Hospital Parisar	Shop Number 7, Kankali hospital Parisar, Tatyapara, Kankalipara Chowk	2.2	296.1	21.238540, 81.627840	View	Not available
110	Anjali Children Hospital	Telibandha Ring Road, Near Panchmukhi Hanuman Temple, Pachpedi Naka, Raipur	2.2	296.1	21.221150, 81.649675	View	Not available
111	We Care Super Specialty Hospital	Ring Road, Besides Airtel Office, Mahaveer Nagar Road, Shatabdi Nagar, Telibandha, Raipur	2.2	296.1	21.235399, 81.668942	View	Not available
112	District Police Hospital	Janta Colony,Raipur	2.2	296.1	21.230722, 81.644952	View	Not available
113	Dr Manoj Agrwal	Indravati Colony, Raipur	2.2	296.1	21.243789, 81.650483	View	Not available
114	Avanti Hospital	Shankar Nagar, Raipur	2.2	296.1	21.240824, 81.669632	View	Not available
115	Anand Shree Hospital	Daganiya, Amanaka, Raipur	2.2	296.1	21.233519, 81.604322	View	Not available
116	Life Line Hospital	Mahadev Ghat Road, Maitri Nagar, Sunder Nagar, Raipur	2.2	296.1	21.232885, 81.605519	View	Not available
117	Shri Jagannath Multispeciality Hospital	csidc, Mahadev Ghat Road, Raipura Chowk Road, near Raipur	2.2	296.1	21.229980, 81.600057	View	Not available
118	Gayatri Hospital	Rohinipuram, Behind Ralas Enclave, Daganiya, Raipur	2.2	296.1	21.239345, 81.603810	View	Not available
119	Vijaya durga hospital	Budhapara, Raipur	2.2	296.1	21.235824, 81.634910	View	Not available
120	Rajdhani Super Speciality Hospital	Pachpedi Naka Road, Laxmi Nagar, Postal Colony, Pachpedi Naka, Raipur, Chhattisgarh	2.2	296.1	21.219033, 81.648345	View	Not available

Continued on next page... (Showing 119 of 225 total records)

121	Dr Nigam Hospital	Raipur, Katora Talab, Civil Lines, Raipur	2.2	296.1	21.235037, 81.651730	View	Not available
122	Shubham Hospital	Sunder Nagar, Raipur	2.2	296.1	21.234220, 81.610285	View	Not available
123	Virdi Hospital	Moudhapara Link Road, near Gurunanak Chowk, Raipur	2.2	296.1	21.249637, 81.628347	View	Not available
124	DKS Super Speciality Hospital	Ghadi chowk, Chhattisgarh	2.2	296.1	21.244963, 81.641238	View	Not available
125	Mamta Hospital	ramnani gali, Jawahar Nagar, Raipur	2.2	296.1	21.246905, 81.631597	View	Not available
126	Om Hospital , Burn Plastic & Cosmetic Surgery Center	Badaipara, Jawahar Nagar, Raipur	2.2	296.1	21.245111, 81.630131	View	Not available
127	Shri Mahaveer Hospital	Kachna Pahuch Marg, Geetanjali Colony, Shankar Nagar, Raipur	2.2	296.1	21.250070, 81.662503	View	Not available
128	Lotus Hospital & Advance Urology Center	Govind Nagar, Raipur	2.2	296.1	21.246894, 81.648586	View	Not available
129	Chand Rani Sardari Lal Speciality EYE And ENT Hospital	Fafadih, shantinagar, Raipur	2.2	296.1	21.246368, 81.654620	View	Not available
130	Petals Newborn And Children Hospital	Bhimsen bhawan marg, Samta Colony, Raipur	2.2	296.1	21.245081, 81.624509	View	Not available
131	Shashwat Hospital	Badhai Para Road, Ramya Para, Jorapara, Jawahar Nagar, Raipur	2.2	296.1	21.244077, 81.630207	View	Not available
132	Sagar Multi Speciality Hospital	Gayatri Nagar, Geetanjali Colony, Shankar Nagar, Raipur	2.2	296.1	21.249743, 81.667901	View	Not available
133	Sankalp Hospital	Salasara Green, Ring Road Number 1, Sarona	2.2	296.1	21.246774, 81.572374	View	Not available
134	A.S.M DENTAL CLINIC	DD NAGAR, RAIPUR	2.2	296.1	21.237113, 81.597893	View	Not available
135	Shreevedam Dental and Aryuvedic Clinic	DDU Nagar Sector 1, Raipur	2.2	296.1	21.234584, 81.595437	View	Not available
136	All India Institute of Medical Sciences (AIIMS), Raipur	GE Road, Area 31, Tatibandh Gurudawra	2.2	296.1	21.256512, 81.578620	View	Not available
137	Shree Narayana Hospital	Near Ganj Mandi, Behind Sector-5, Devendra Nagar,Pandri	2.2	296.1	21.263587, 81.649822	View	Not available
138	Dr. B.R. Ambedkar Memorial Hospital	Jail Rd, Opp Central jail, Moudhapara, Raipur	2.2	296.1	21.250165, 81.639926	View	Not available
139	Shre Ramkinkar Medical Institute Hospital	Lily Chowk, Purani Basti	2.2	296.1	21.234741, 81.626205	View	Not available
140	DR SALEEM HOSPITAL	Canal Road, RAIPUR,CHATTISGARH,INDIA	2.2	296.1	21.245553, 81.649142	View	Not available
141	hospital	Not Available	2.2	296.1	21.242804, 81.593675	View	Not available
143	DKS Super Speciality Hospital	Not Available	2.2	296.1	21.244592, 81.641189	View	Not available

Continued on next page... (Showing 141 of 225 total records)

144	Old District Hospital Mahasamund	Mahasamund	4.7	293.6	21.113837, 82.092952	View	Not available
145	Tiwari Hospital	Subash Nagar	4.7	293.6	21.114822, 82.092009	View	Not available
146	RLC Multispeciality Hospital	Bhawanipatna - Raipur Hwy, Mahasamund	4.7	293.6	21.115668, 82.086619	View	Not available
147	Sri Sathya Sai Sanjeevani Hospital	Not Available	4.7	293.6	21.210939, 81.811497	View	Not available
148	Dr Vikas chandrakar	Bhawanipatna - Raipur Hwy, Kharora	5.1	293.2	21.118367, 82.075597	View	Not available
149	Government Hospital Uparwara	NEAR THE Government H S SCHOOL UPARWARA	14.9	283.4	21.117467, 81.764341	View	Not available
150	Jan Kalyan Hospital, Bhilai	Kailash Nagar, M.P.Housing Board	17.4	280.9	21.236753, 81.368844	View	Not available
151	Government Hospital, Charoda	Bhilai	17.5	280.8	21.208088, 81.432687	View	Not available
152	Gindodi Devi Memorial Charitable Reserch Center	New Khursipar , G. E. Road	17.5	280.8	21.207556, 81.401337	View	Not available
153	Manoharlal Government Hospital	Not Available	17.5	280.8	21.207716, 81.401176	View	Not available
154	S.S. Hospital	Nandani Road Near Chhapani Chock	17.5	280.8	21.220735, 81.380512	View	Not available
155	Lal Bahadur Shastri Civil Hospital	Infront Of Nagar Nigam	17.5	280.8	21.208254, 81.355468	View	Not available
156	Apollo Bsr Hospital	Junwani Road, Smriti Nagar, Near Chaohan Towers	17.5	280.8	21.216223, 81.323268	View	Not available
157	Shree Ambe Hospital	Near Heavey Restorent , G E Road Power House	17.5	280.8	21.209254, 81.373197	View	Not available
158	Pragya Hospital, Durg	G E Road Power House	17.5	280.8	21.209375, 81.372032	View	Not available
159	Sharma Nethralaya	1/24, Dakshin Gangotry	17.5	280.8	21.205705, 81.347671	View	Not available
160	Government Hospital,Purena	Purena, Bhilai Steel Plant, Bhilai	17.5	280.8	21.198736, 81.429479	View	Not available
161	Bhilai Hospital Sector 1	Not Available	17.5	280.8	21.204607, 81.366276	View	Not available
162	Parvati Hospital	Sector 2 A Market	17.6	280.8	21.199522, 81.357009	View	Not available
163	Bhilai Gayatri Hospital	Near Supela Thana , Priyodarshni Pariror G.E.Road	17.6	280.8	21.204333, 81.341652	View	Not available
164	Mahima Hospital Utai	Mahima Hospital, Village & Post Utai, Block Patan	17.9	280.4	21.117565, 81.386854	View	Not available
165	Aastha Hospital, Durg	Asha Complex, Near Patan Pool	17.9	280.4	21.117268, 81.387412	View	Not available

400	Chandulal Chandrakar	Nahmi Namar C E Dand Bhilei	47.0	200.4	21.200204,	View	Netovelleble
166	Hospital	Nehru Nagar, G E Road, Bhilai	17.9	280.4	81.322593	View	Not available
167	Shri Vinayak Hospital	Phase-6, Maitri Nagar, Krishna Talkies Road, Risali	17.9	280.4	21.161159, 81.335089	View	Not available
168	Suraj Hospital, Durg	Nehru Nagar	17.9	280.4	21.201332, 81.321474	View	Not available
170	Jawaharlal Nehru Hospital and Research Centre	Sector-9	17.9	280.4	21.188310, 81.314065	View	Not available
171	jeevandeep hospital	Not Available	25.6	272.7	21.055395, 81.747138	View	Not available
172	Soni and Kaur Multispeciality Hospital And Maternity Home	Ashirwad Bhawan Pitaiband Road, Rajim	32.6	265.7	20.968313, 81.883775	View	Not available
173	Goverment hospital Gobra Nawapara	Gobra, NEAR THE NAGAR PALIKA	32.6	265.7	20.967551, 81.858870	View	Not available
174	hospital	Not Available	32.7	265.6	20.954200, 81.876571	View	Not available
175	Civil Hospital Kurud	Kurud	52.4	245.9	20.831114, 81.716976	View	Not available
176	DH Gariaband	Behind Petrol Pump Near Collectorate	52.8	245.5	20.636596, 82.057487	View	Not available
177	City Hospital	Gariyaband	52.8	245.5	20.634774, 82.062087	View	Not available
178	Someshwar private hospital	Gariyaband	52.8	245.5	20.634677, 82.060722	View	Not available
179	Shriyansh Hospital	Rajim-Gariaband Road	52.8	245.5	20.637152, 82.058551	View	Not available
180	Mithali Hospital	Dayanand Nagar, Achhota Wala, Dhamtari	73.2	225.1	20.729039, 81.557162	View	Not available
181	Sahu Hospital	Achhota Wala, Dhamtari	73.7	224.6	20.723911, 81.552707	View	Not available
182	Sri Badyanath Ayurvedic Dawakhana	Industrial Area, Dhamtari	73.7	224.6	20.721594, 81.553808	View	Not available
183	Sarwani Devi Mittal Memorial Hospital	NH30, Industrial Area, Dhamtari	74.0	224.3	20.720153, 81.551206	View	Not available
184	Dhamtari Christian Hospital	Dhamtari	74.2	224.2	20.718560, 81.551546	View	Not available
185	Bal Krishna Hospital	Industrial Area, Dhamtari	74.2	224.1	20.719681, 81.549261	View	Not available
186	Manmohan Vaishno Hospital	Industrial Area, Dhamtari	74.3	224.0	20.720152, 81.548017	View	Not available
187	Dr. Mukesh Lunkad Nursing Home	Athwani Lane	74.7	223.6	20.711807, 81.548210	View	Not available
188	Government Hospital, Palari	Palari	75.5	222.8	20.805850, 81.476001	View	Not available

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189	Rameshwaram Hospital	Subhash Nagar, Dhamtari	78.4	219.9	81.534926	View	Not available
190	City Hospital	Dhamtari Road, Housing Board Colony, Subhash Nagar, Dhamtari	78.5	219.8	20.711748, 81.538034	View	Not available
191	Gupta Hospital	Ratna Bandha Road, Dhamtari	78.7	219.6	20.710740, 81.539055	View	Not available
192	Dr.Iqbal Pervez Orthopaedics Hospital	Old Bus Stand	78.8	219.6	20.710011, 81.547417	View	Not available
193	Martin Hospital	Martin Banglow, Dak Banglow Ward	78.8	219.5	20.707689, 81.541465	View	Not available
194	DH Dhamtari	Civil Lines, Dak Banglaw Ward, Dhamtari	78.8	219.5	20.707787, 81.539659	View	Not available
195	Fracture Trauma Hospital	Balaji Colony, Dhamtari, Behind New Bus Stand	78.8	219.5	20.708569, 81.546236	View	Not available
196	Dr. Niranjan Mahawar Hospital	Baniya Para, Itwari Bazar, Dhamtari	79.0	219.3	20.704857, 81.550270	View	Not available
197	Santosh Hospital	Brahmanpara, Tikrapara, Dhamtari	79.0	219.3	20.701597, 81.554329	View	Not available
198	Dhamtari Hospital	Itwari Bazar, Dhamtari	79.1	219.2	20.701153, 81.537672	View	Not available
199	Dr. Gangwani	Maratha Para, Itwari Bazar, Dhamtari	79.2	219.1	20.698737, 81.548738	View	Not available
200	Santosh hospital	Dani Tola, Dhamtari	79.3	219.0	20.695223, 81.544407	View	Not available
201	Dharmarth Hospital	Gandhi Ward, Dhamtari	80.8	217.5	20.689060, 81.554051	View	Not available
202	Government Hospital Shahwada	Village Shahwada Block Charama	126.3	172.0	20.384405, 81.484200	View	Not available
203	Amoda Hospital	Sadakpara, Amoda	130.4	167.9	20.378804, 81.577917	View	Not available
204	Purnima Homeo & Dental Hospital	Bhirawahi, Khaprapara, Chhattisgarh	134.7	163.6	20.300638, 81.492115	View	Not available
205	Mother Mary Hospital, Kanker	Kanker	136.8	161.5	20.281738, 81.486791	View	Not available
206	District Veterinary Hospital	Albelapara	137.0	161.3	20.278949, 81.491495	View	Not available
207	Shriram Hospital	Jaiswal Complex, Main Road, Kanker	137.6	160.7	20.272711, 81.488296	View	Not available
208	Shree Ram Hospital & Research Centre	Govindpur, Kanker	141.8	156.5	20.265646, 81.494933	View	Not available
209	District Hospital Kanker	Main Road in front Post office, Kanker	141.9	156.4	20.264712, 81.495199	View	Not available
210	Government Hospital Sarona	Village Sarona Block Narharpur	143.6	154.7	20.281617, 81.651392	View	Not available

211	Government hospital Nagri	Nagri	164.9	133.4	20.350877, 81.957065	View	Not available
212	Govt. Hospital Keshkal	NH30, Keshkal, NEAR BUS STAND	169.6	128.7	20.083284, 81.589058	View	Not available
213	Hospital Pharasgaon	, Pharasgaon	195.9	102.4	19.858150, 81.635340	View	Not available
214	Danteshwari Hospital	Kondagaon	226.1	72.2	19.589529, 81.670203	View	Not available
215	Dr. Shri Naresh Jain- Hospital	Bank Of India Road, Near Bank Of India	226.3	72.0	19.589813, 81.664254	View	Not available
216	Ravindra Nath Tagore Hospital	Kondagaon	226.3	72.0	19.587964, 81.670979	View	Not available
217	Public Hospital Kondagaon	Kondagaon	226.5	71.8	19.589006, 81.661658	View	Not available
218	Vatenery Hospital	Kondagaon	226.5	71.8	19.587560, 81.666637	View	Not available
219	K.N.H Hospital	Kondagaon	226.9	71.4	19.584977, 81.661672	View	Not available
220	Netam Hospital & Infertility Centre	Shri Golcha Plaza, Main Road	227.2	71.1	19.582801, 81.662931	View	Not available
221	Ravindra Nath Tagore District Hospital	KONDAGAON, NEAR BUS STAND	229.4	68.9	19.565563, 81.674220	View	Not available
222	Government Maternal Hospital	Kondagaon	229.4	68.9	19.565580, 81.674855	View	Not available
223	Government Hospital, Ghotiya	Ghotiya	265.8	32.5	19.226228, 81.755718	View	Not available
224	M P M Hospital	Aghanpur Jagdalpur	294.2	4.1	19.088076, 81.999406	View	Not available
225	Bastar Seva Hospital	Near Bus Stand Road	297.9	0.4	19.078875, 82.016493	View	Not available
226	Government Medical College Hospital, Bastar	Government Medical College, NMDC, Jagdalpur	297.9	0.4	19.050541, 81.948309	View	Not available
227	Veterinary Hospital	Balaji Waroad, Naya Para	297.9	0.4	19.086198, 82.026853	View	Not available
228	Maharani Hospital	Nayapara, Kondagaon, Chhattisgarh	297.9	0.4	19.084510, 82.023690	View	Not available

LAW ENFORCEMENT - Security & Emergency Response - CRITICAL

id	Facility Name	Address	From Supply (km)	From Customer (km)	Coordinates	Link	Phone
1	Mowa Police Station	Not Available	2.1	296.2	21.267729, 81.671084	View	Not available
2	DDU Nagar Police station	Amanaka, raipur	2.2	296.1	21.251549, 81.595403	View	+917712262501
3	Amanaka Police station	Amanaka, Raipur	2.2	296.1	21.250751, 81.587675	View	Not available
4	Tikrapara Police station	Dhamtari Road, Tikrapara, Raipur	2.2	296.1	21.220629, 81.641530	View	Not available
5	Amanaka Police Station	GE Road,	2.2	296.1	21.251836, 81.599760	View	Not available
6	Purani Basti Police station	50/394, Main road, Puranibasti, Raipur	2.2	296.1	21.233469, 81.630623	View	Not available
8	New Khursipar Bhilai Police Station	NH-53, Bhilai - The Steel City	17.5	280.8	21.207644, 81.400515	View	Not available
9	CISF Central Industrial Security Force	Not Available	17.9	280.4	21.130286, 81.384101	View	Not available
10	Police Head Quarter	Not Available	17.9	280.4	21.188279, 81.340261	View	Not available
11	Police Station	, Charama	109.9	188.4	20.493552, 81.367903	View	Not available
12	Police Station	, Charama	110.0	188.3	20.493339, 81.367843	View	Not available

FIRE & RESCUE - Emergency Response Services - CRITICAL

id	Facility Name	Address	From Supply (km)	From Customer (km)	Coordinates	Link	Phone
1	Airport Fire Station	Ramchandi,, naya raipur	9.7	288.6	21.183723, 81.738507	View	+91 78699 74230

FUEL STATIONS - Vehicle Refueling Points - ESSENTIAL

id	Facility Name	Address	From Supply (km)	From Customer (km)	Coordinates	Link	Phone
1	Hindustan Petroleum	industrial area,godnwara rd,no2 ring rd,near ganesh dharam kanta, raipur	2.2	296.1	21.233438, 81.648917	View	Not available

FUEL STATIONS - Vehicle Refueling Points - ESSENTIAL

2	HP Petrol Pump	Not Available	2.2	296.1	21.237225, 81.689161	View	Not available
3	Hindustan Petroleum	GE Road, raipur	2.2	296.1	21.252124, 81.598232	View	Not available
4	HP	Not Available	2.2	296.1	21.230824, 81.604288	View	Not available
5	HP Petrol Pump	Not Available	17.9	280.4	21.187078, 81.337810	View	Not available

EDUCATIONAL INSTITUTIONS - Speed Limit Zones (40 km/h) - AWARENESS

id	Facility Name	Address	From Supply (km)	From Customer (km)	Coordinates	Link	Phone
1	Shri Venkatesh School	Street no 3, Dwarika Vihar, raipur	1.8	296.5	21.278365, 81.674890	View	Not available
2	School	Not Available	1.8	296.5	21.275824, 81.679829	View	Not available
3	Om shanti Niketan Higher Middle School	Not Available	1.9	296.4	21.278599, 81.668922	View	Not available
4	Holy Heartseducational academy	Near IDBI bank civil lines katara Talab raipur, raipur	2.2	296.1	21.237417, 81.648084	View	7712431088
5	Mayoor school	Shree prahalad ahuya foundation, katora Talab civil lines talab, raipur	2.2	296.1	21.234954, 81.649508	View	7714235000
6	Bharat Mata higher secondary school	GE roadtatibandh raipur, raipur	2.2	296.1	21.260453, 81.574290	View	7712573485
7	Dronacharya public school	Newrajendra nagar raipur, raipur	2.2	296.1	21.218859, 81.652270	View	9425296305
8	The Radient Way School	Pt. ravi shankar shukla university campus, raipur, raipur	2.2	296.1	21.245120, 81.588040	View	7712263566
9	Holy cross senior secondary school	Byson Bazar near gopal childrens hospital raipur, raipur	2.2	296.1	21.261756, 81.660254	View	+91 77124 24941
10	MGM school	Gayatri nagar ,shankar nagar raipur, raipur	2.2	296.1	21.251571, 81.670484	View	7714013557
11	Ryan International School	Avanthi Vihar Colony, Labhandi, Ravigram,, Raipur	2.2	296.1	21.247428, 81.688392	View	+91 077164 58517
12	Grass Memorial Ground	Raj Bhavan Rd, Civil Lines, Raipur	2.2	296.1	21.238571, 81.645091	View	Not available
13	rajkumar college	Not Available	2.2	296.1	21.243254, 81.612594	View	Not available
14	Sarsvati H.S. Girl's School	Not Available	2.2	296.1	21.235030, 81.625661	View	Not available

EDUCATIONAL INSTITUTIONS - Speed Limit Zones (40 km/h) - AWARENESS

15	Raipur Convent Hr. Sec. School	Not Available	2.2	296.1	21.264455, 81.618473	View	Not available
16	Dani Girls Higher Secondary School	Not Available	2.2	296.1	21.233681, 81.636273	View	Not available
17	nationl convent	Not Available	2.2	296.1	21.228688, 81.607371	View	Not available
18	School Number 1	Not Available	2.2	296.1	21.227585, 81.664953	View	Not available
19	Dronacharya School	Not Available	2.2	296.1	21.221416, 81.662426	View	Not available
20	LITTILE FLOWER SCHOOL	Not Available	2.2	296.1	21.240696, 81.597233	View	Not available
21	DANI GIRLS SCHOOL	Not Available	2.2	296.1	21.233353, 81.636080	View	Not available
22	Government Higher Secondary School	Not Available	2.2	296.1	21.266132, 81.662422	View	Not available
23	Daffodils English School	Gudhiyari Road, Raipur	2.2	296.1	21.257487, 81.604923	View	Not available
25	Excel Educational Institute	6JCW+MP9 Excel Tower, Pachpedi Naka Rd, Postal Colony, Pachpedi Naka, Raipur, Mathpurena, Chhattisga,	2.2	296.1	21.221219, 81.646648	View	Not available
26	Allen Carrier Institute Raipur	Pujari Complex, Block A-2, opp. GST Bhawan, beside Pujari Park Road, Pachpedi Naka, Raipur,	2.2	296.1	21.223414, 81.645363	View	Not available
30	govrnment dudhari bajarang girls post graduate autonomous college	kalibadichowk, budhapura raipur, Raipur	2.2	296.1	21.232351, 81.636850	View	+917712229248
31	Kalibadi School Ground	Not Available	2.2	296.1	21.233094, 81.638086	View	Not available
32	Holy Cross Senior Secondary School	Not Available	2.2	296.1	21.234454, 81.642635	View	Not available
33	St. Paul School	Not Available	2.2	296.1	21.232885, 81.643986	View	Not available
34	Salem School Ground	Not Available	2.2	296.1	21.241315, 81.642284	View	Not available
35	St. Joseph's Sr. Sec. School	Not Available	2.2	296.1	21.219246, 81.669590	View	Not available
36	Krishna Public School	Not Available	2.2	296.1	21.246894, 81.662398	View	Not available
38	Govt.School Dumartarai	Not Available	9.9	288.4	21.199687, 81.686396	View	Not available
42	Krishna Public School	Devpuni-dunda road krishna puram dundaraipur, raipur	15.9	282.4	21.194388, 81.663582	View	7714289200

EDUCATIONAL INSTITUTIONS - Speed Limit Zones (40 km/h) - AWARENESS

43	Mintu International School	Not Available	17.0	281.3	21.125303, 81.737473	View	Not available
45	Krishna Public School	Nehru Nagar Main Rd,	17.5	280.8	21.209632, 81.322221	View	Not available
46	Krishna Public School	Not Available	17.5	280.8	21.209876, 81.322045	View	Not available
47	Govt Primary School Umarpoti	Utai Road, Bhilai	17.9	280.4	21.130386, 81.347678	View	Not available
54	Delhi Public School	DPS ROAD, BHILAI	17.9	280.4	21.172892, 81.335360	View	Not available
55	Montfort School Raipur	Not Available	20.8	277.5	21.092053, 81.746762	View	Not available
56	Dreem India School	, Abhanpur	26.0	272.3	21.050558, 81.747185	View	Not available
57	Girls School	, Charama	110.3	188.0	20.490035, 81.369484	View	Not available
58	Boys School	, Charama	110.9	187.4	20.485640, 81.370512	View	Not available
59	Middle School	, Sirsida	112.4	185.9	20.468034, 81.364688	View	Not available
60	narhardev school govt.	Not Available	137.0	161.3	20.277400, 81.488930	View	Not available
61	govt. school bardebhata	sh6,	142.9	155.4	20.268465, 81.510547	View	Not available
62	Model school	, pharasgaon	194.7	103.6	19.869125, 81.636073	View	Not available

NOTES - GENERAL EMERGENCY GUIDELINES FOR PETROLEUM TANKER

ASPECT	GUIDELINES / ACTIONS
Vehicle Safety	Park the tanker safely on the roadside with hazard lights and emergency triangles deployed. Avoid sudden braking or jerks, especially if the tanker is partially filled.
Communication	Immediately contact the Supply Location control room and, Transport supervisor. If in a dead zone, use alternate communications. Maintain communication with authorities if directed.
Emergency Contacts	Call local police, nearest hospital, or fire station, Supply Location. Keep a printed list of these numbers in the vehicle.
Basic First-Aid	Use the onboard first-aid kit for minor injuries. In case of severe injuries, prioritize immediate attention and inform the control room.
Spill / Hazard Response	Follow MSDS and company-specific SOP for spills. Do not attempt to clean up fuel spills without proper equipment. Use absorbent materials available. Use non-sparking tools.
Fire / Explosion Risk	If a fire starts, immediately shut off the engine and evacuate the area. Use the onboard fire extinguisher only if safe to do so and trained to handle it.
Evacuation Zone	Establish a safety perimeter (minimum 50 meters) around the tanker. Do not allow smoking or the use of mobile phones, non-FLP torches, sparking tools near the spill or fire area.
Convoy / Escort Movement	In areas requiring convoy travel (e.g., night operations under police escort), maintain close coordination and avoid separating from the group.
Incident Documentation	Record incident details: time, GPS coordinates, nature of spill/accident, vehicle condition, environmental impact.
Personal Safety & Well-being	Wear appropriate PPE (helmet, gloves, reflective jacket). Remain calm, prioritize personal safety, and wait for emergency responders if in doubt about next steps. Use coverall during filling and unloading operations.
Regulatory Compliance	Follow all guidelines under Petroleum Rules 2002, CMVR, and company SOP for hazardous goods transportation.

Note: These guidelines are mandatory for all petroleum tanker operations. Compliance ensures safety and environmental protection

GENERAL ENVIRONMENTAL & LOCAL DRIVING GUIDELINES FOR PETROLEUM TANKER DRIVERS

Aspect	Guidelines / Actions
Eco-sensitive Areas	Drive slowly, avoid honking unnecessarily, and do not stop for breaks or cleaning in these areas.
Waterbody Crossings	Inspect for leaks before entering bridges, no refueling or repairs on or near bridges.
School & Market Areas	Maintain speed limits (25-30 km/h), stay alert for children and pedestrians, avoid peak school/market hours.
Festivals & Local Events	Expect road diversions or closures, confirm route with local authorities or control room.
Littering & Pollution Prevention	Never discard trash or spill fuel; carry spill kits and clean-up materials as per SOP.
Noise & Cultural Sensitivity	Avoid honking in populated areas and during religious or cultural gatherings.
Local Road Regulations	Follow local traffic signage and any state-specific restrictions for hazardous cargo.
Coordination with Locals	Be courteous to local communities; stop only at designated points for rest, food, or refueling.

Note: These guidelines are mandatory for all petroleum tanker operations. Compliance ensures safety and environmental protection.

DEFENSIVE DRIVING & DRIVER WELL-BEING

Checklist Item	Detailed Guidelines / Actions
Maintain safe distance, use indicators	Keep a minimum 3-second following distance from the vehicle ahead, adjust for heavy loads; always signal turns or lane changes well in advance.
Stay hydrated: carry water bottles	Carry at least 2 liters of drinking water. Avoid dehydration, especially in summer. Drink at rest stops every 1-2 hours.
Avoid heavy/oily meals before journey	Eat light, balanced meals to avoid drowsiness and discomfort. Avoid spicy, fried, or heavy foods before and during the trip.
Get at least 8 hours of sleep before starting	A good night's sleep is essential to reduce fatigue and maintain focus. Never start a trip when tired or drowsy.
Wear weather-appropriate protective gear	Use sun protection (caps, sunglasses) in summer; layered clothing in winter; always wear safety shoes and reflective vests.
Control speed based on road conditions	Adjust speed for weather, road curves, and heavy vehicle braking distances. Never exceed posted speed limits.
Plan rest breaks every 3 hours	Stop for at least 30 minutes to stretch, refresh, and check vehicle condition. Avoid continuous driving for more than 3 hours.
Defensive driving mindset	Stay calm, anticipate road users' actions, avoid aggression. Use mirrors frequently and watch for potential hazards ahead.
Emergency readiness	Keep fire extinguisher, first-aid kit, and communication device within easy reach. Be aware of nearest emergency services along the route.

Note: These guidelines are mandatory for all petroleum tanker operations. Compliance ensures safety and environmental protection.

COMPREHENSIVE ROUTE OVERVIEW & STATISTICS

BLIND SPOTS ANALYSIS WITH DUAL VISUAL EVIDENCE - Critical Risk (Risk Score: 5.0)

Parameter	Value
Total Blind Spot Locations Analyzed	83
Crest Type Spots	0
Obstruction Type Spots	0
Curve Type Spots	58
Intersection Type Spots	0
Visibility < 500m	83
Visibility 500m–1000m	0
Visibility > 1000m	0
Spots with Mirror Installed	0
Spots Missing Warning Signs	83
Analysis Confidence	High

BLIND SPOT CLASSIFICATION SYSTEM

Angle Range	Classification	Risk Level	Max Speed	Safety Requirement
≥ 90°	EXTREME BLIND SPOT	CRITICAL	15 km/h	Full stop, check both mirrors, inch forward slowly
80°-90°	HIGH-RISK BLIND TURN	EXTREME	20 km/h	Reduce speed sharply, use horn, check for oncoming
70°-80°	BLIND SPOT	HIGH	25 km/h	Keep left, use indicators, maintain 2m clearance
60°-70°	HIGH-ANGLE TURN	MEDIUM	30 km/h	Brake before turn, avoid overtaking
45°-60°	SHARP TURN	LOW	40 km/h	Stay in lane, observe caution signage

CRITICAL BLIND SPOTS

Location (GPS)	Link	Туре	Visibility (m)	Risk Level	Action Required
21.22545, 81.78361	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22543, 81.78371	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22499, 81.78367	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22525, 81.78453	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22612, 81.78333	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22674, 81.78346	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22907, 81.77044	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22622, 81.76888	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.22333, 81.76982	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.21431, 81.78039	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.21749, 81.78259	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.21760, 81.78265	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.13060, 81.75230	View	Sharp_Curve	50	Critical	Use horn, stay alert
21.11731, 81.73587	View	Sharp_Curve	50	Critical	Use horn, stay alert
20.56089, 81.37230	View	Sharp_Curve	50	Critical	Use horn, stay alert
20.30704, 81.46581	View	Sharp_Curve	50	Critical	Use horn, stay alert
20.10590, 81.58506	View	Sharp_Curve	50	Critical	Use horn, stay alert
20.10261, 81.58650	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.09198, 82.04299	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.08672, 82.04015	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.08663, 82.04111	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.08684, 82.04123	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.08673, 82.04190	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.08668, 82.04197	View	Sharp_Curve	50	Critical	Use horn, stay alert
19.08638, 82.04195	View	Sharp_Curve	50	Critical	Use horn, stay alert

CRITICAL TURN #1: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.225450, 81.783610 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	0.1 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #1:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #2: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.225430, 81.783710 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	0.1 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #2:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #3: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.224990, 81.783670 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	0.1 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #3:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #4: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.225250, 81.784530 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	0.2 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #4:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #5: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.226120, 81.783330 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	0.4 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #5:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #6: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.226740, 81.783460 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	0.5 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #6:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #7: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value	
GPS Coordinates	21.229070, 81.770440 (view)	
Spot Type	Sharp_Curve	
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE	
Risk Level	4.0/5 - High Risk	
Distance from Supply Location	1.8 km	
Visibility Distance	50 meters	
Visibility Category	Poor (50-100m)	
Obstruction Height	Not specified	
Road Geometry - Gradient	0.0°	
Road Geometry - Curvature	0.0°	
Road Width	7.0 m	
Vegetation Present	No	
Warning Signs Present	No	
Mirror Installed	No	
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h	

VISUAL EVIDENCE FOR BLIND SPOT #7:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #8: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value	
GPS Coordinates	21.226220, 81.768880 (view)	
Spot Type	Sharp_Curve	
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE	
Risk Level	4.0/5 - High Risk	
Distance from Supply Location	2.2 km	
Visibility Distance	50 meters	
Visibility Category	Poor (50-100m)	
Obstruction Height	Not specified	
Road Geometry - Gradient	0.0°	
Road Geometry - Curvature	0.0°	
Road Width	7.0 m	
Vegetation Present	No	
Warning Signs Present	No	
Mirror Installed	No	
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h	

VISUAL EVIDENCE FOR BLIND SPOT #8:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #9: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value	
GPS Coordinates	21.223330, 81.769820 (view)	
Spot Type	Sharp_Curve	
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE	
Risk Level	4.0/5 - High Risk	
Distance from Supply Location	2.5 km	
Visibility Distance	50 meters	
Visibility Category	Poor (50-100m)	
Obstruction Height	Not specified	
Road Geometry - Gradient	0.0°	
Road Geometry - Curvature	0.0°	
Road Width	7.0 m	
Vegetation Present	No	
Warning Signs Present	No	
Mirror Installed	No	
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h	

VISUAL EVIDENCE FOR BLIND SPOT #9:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

CRITICAL TURN #10: SHARP_CURVE - SEVERE BLIND SPOT - HIGH RISK

Parameter	Value
GPS Coordinates	21.214310, 81.780390 (view)
Spot Type	Sharp_Curve
Risk Classification	SEVERE BLIND SPOT - SHARP_CURVE
Risk Level	4.0/5 - High Risk
Distance from Supply Location	4.2 km
Visibility Distance	50 meters
Visibility Category	Poor (50-100m)
Obstruction Height	Not specified
Road Geometry - Gradient	0.0°
Road Geometry - Curvature	0.0°
Road Width	7.0 m
Vegetation Present	No
Warning Signs Present	No
Mirror Installed	No
Driver Action Required	Sound horn continuously, reduce to 10-15 km/h

VISUAL EVIDENCE FOR BLIND SPOT #10:

Visual evidence not available -Satellite View Not Available

- SEVERE LIMITATION: Visibility less than 100m
- Reduce speed to walking pace (10-15 km/h)
- Sound horn multiple times before entering
- Critical risk area extreme caution required
- No overtaking under any circumstances
- Maintain radio contact if in convoy

SHARP TURNS ANALYSIS WITH DUAL VISUAL EVIDENCE - Critical Risk (Risk Score: 5.0)

Parameter	Value
Total Sharp Turns Detected	41
Extreme Danger Turns (>=90 deg)	27
High-Risk Blind Spots (80-90 deg)	2
Sharp Danger Zones (70-80 deg)	6
Moderate Risk Turns (45-70 deg)	6
Most Dangerous Turn Angle	180.0°
Average Turn Angle	116.8°
Street View Images Available	0
Satellite Images Available	0
Route Map Images Available	0
Total Visual Evidence Files	0

SHARP TURN CLASSIFICATION SYSTEM

Angle Range	Classification	Risk Level	Max Speed	Safety Requirement
≥ 120°	HAIRPIN TURN	CRITICAL	10-15 km/h	Full stop, sharp steering, extreme caution, check mirrors, inch forward slowly
100°-119.9°	EXTREME SHARP TURN	EXTREME	15-20 km/h	Slow down significantly, use mirrors, stay tight inside lane
80°-99.9°	VERY SHARP TURN	HIGH	20 km/h	Reduce speed, use mirrors, no overtaking
60°-79.9°	HIGH-ANGLE TURN	MEDIUM	25-30 km/h	Brake before turn, keep lane position
45°-60°	SHARP TURN	LOW	30-40 km/h	Stay in lane, observe caution signage
30°-44.9°	MODERATE TURN	VERY LOW	40-50 km/h	Normal caution, light braking
< 30°	GENTLE CURVE	MINIMAL	50+ km/h	Maintain lane, standard driving

CRITICAL SHARP TURNS

Location(GPS)	Link	Turn Angle	Direction	Risk Level	Severity
21.22553, 81.78316	View	100.8	right	Critical	sharp
21.22499, 81.78367	View	175.2	left	Critical	hairpin
21.22622, 81.76888	View	155.0	left	Critical	hairpin
21.22333, 81.76982	View	174.1	left	Critical	hairpin
21.21431, 81.78039	View	137.0	left	Critical	hairpin
21.21749, 81.78259	View	111.2	left	Critical	sharp
21.21760, 81.78265	View	149.5	right	Critical	hairpin
21.19664, 81.77499	View	161.0	left	Critical	hairpin
21.18764, 81.77169	View	172.8	left	Critical	hairpin
21.13060, 81.75230	View	91.9	right	Critical	sharp
21.11767, 81.73632	View	175.6	left	Critical	hairpin
21.11731, 81.73587	View	127.4	left	Critical	hairpin
21.11576, 81.73664	View	155.0	left	Critical	hairpin
20.68773, 81.51754	View	162.1	left	Critical	hairpin
20.56089, 81.37230	View	171.8	left	Critical	hairpin
20.55776, 81.37067	View	136.9	left	Critical	hairpin
20.30704, 81.46581	View	180.0	left	Critical	hairpin
20.10295, 81.58616	View	90.0	right	Critical	moderate
19.56779, 81.67222	View	153.1	left	Critical	hairpin
19.09198, 82.04299	View	165.8	left	Critical	hairpin
19.08989, 82.04018	View	127.1	left	Critical	hairpin
19.08672, 82.04015	View	165.8	left	Critical	hairpin
19.08663, 82.04111	View	100.0	left	Critical	sharp
19.08638, 82.04195	View	176.4	left	Critical	hairpin

CRITICAL TURN #1: 100.8° - SHARP TURN - HIGH RISK

Parameter	Value	
GPS Coordinates	21.225530, 81.783160 (view)	
Turn Angle	100.8° (Deviation from straight path)	
Risk Classification	SHARP TURN - CRITICAL	
Risk Level	8/5 - High Risk	
Distance from Supply Location	0.0 km	
Turn Direction	Right	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	25 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Stop, check visibility, proceed at 10-15 km/h	

VISUAL EVIDENCE FOR TURN #1:

Visual evidence not available - Satellite View Not Available

- EXTREME CAUTION: Consider alternative route if possible
- Mandatory convoy travel with lead vehicle communication
- Complete stop before turn to assess conditions
- Sharp turn: Reduce speed to 15-20 km/h before entering
- Stay in center of your lane throughout turn

CRITICAL TURN #2: 82.7° - MODERATE TURN - CAUTION ADVISED

Parameter	Value	
GPS Coordinates	21.225430, 81.783710 (view)	
Turn Angle	82.7° (Deviation from straight path)	
Risk Classification	MODERATE TURN - HIGH RISK	
Risk Level	7/5 - High Risk	
Distance from Supply Location	0.1 km	
Turn Direction	Right	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	30 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Reduce speed to 20 km/h, use horn, check mirrors	

VISUAL EVIDENCE FOR TURN #2:

Visual evidence not available - Satellite View Not Available

- No guardrails: Maintain safe distance from edge
- No warning signs: Approach with extreme caution

CRITICAL TURN #3: 175.2° - HAIRPIN TURN - EXTREME CAUTION

Parameter	Value	
GPS Coordinates	21.224990, 81.783670 (view)	
Turn Angle	175.2° (Deviation from straight path)	
Risk Classification	HAIRPIN TURN - EXTREME RISK	
Risk Level	9/5 - High Risk	
Distance from Supply Location	0.1 km	
Turn Direction	Left	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	20 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Stop, check visibility, proceed at 10-15 km/h	

VISUAL EVIDENCE FOR TURN #3:

Visual evidence not available - Satellite View Not Available

- EXTREME CAUTION: Consider alternative route if possible
- Mandatory convoy travel with lead vehicle communication
- Complete stop before turn to assess conditions
- Hairpin turn: Use lowest gear for engine braking
- Sound horn continuously while navigating turn

CRITICAL TURN #4: 80.8° - MODERATE TURN - CAUTION ADVISED

Parameter	Value	
GPS Coordinates	21.225250, 81.784530 (view)	
Turn Angle	80.8° (Deviation from straight path)	
Risk Classification	MODERATE TURN - HIGH RISK	
Risk Level	7/5 - High Risk	
Distance from Supply Location	0.2 km	
Turn Direction	Right	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	30 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Reduce speed to 20 km/h, use horn, check mirrors	

VISUAL EVIDENCE FOR TURN #4:

Visual evidence not available - Satellite View Not Available

- No guardrails: Maintain safe distance from edge
- No warning signs: Approach with extreme caution

CRITICAL TURN #5: 78.3° - MODERATE TURN - CAUTION ADVISED

Parameter	Value	
GPS Coordinates	21.226120, 81.783330 (view)	
Turn Angle	78.3° (Deviation from straight path)	
Risk Classification	MODERATE TURN - HIGH RISK	
Risk Level	7/5 - High Risk	
Distance from Supply Location	0.4 km	
Turn Direction	Left	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	30 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Reduce speed to 20 km/h, use horn, check mirrors	

VISUAL EVIDENCE FOR TURN #5:

Visual evidence not available - Satellite View Not Available

- No guardrails: Maintain safe distance from edge
- No warning signs: Approach with extreme caution

CRITICAL TURN #6: 77.9° - MODERATE TURN - CAUTION ADVISED

Parameter	Value	
GPS Coordinates	21.226740, 81.783460 (view)	
Turn Angle	77.9° (Deviation from straight path)	
Risk Classification	MODERATE TURN - HIGH RISK	
Risk Level	7/5 - High Risk	
Distance from Supply Location	0.5 km	
Turn Direction	Right	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	d 30 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Reduce speed to 20 km/h, use horn, check mirrors	

VISUAL EVIDENCE FOR TURN #6:

Visual evidence not available - Satellite View Not Available

- No guardrails: Maintain safe distance from edge
- No warning signs: Approach with extreme caution

CRITICAL TURN #7: 79.0° - MODERATE TURN - CAUTION ADVISED

Parameter	Value
GPS Coordinates	21.229070, 81.770440 (view)
Turn Angle	79.0° (Deviation from straight path)
Risk Classification	MODERATE TURN - HIGH RISK
Risk Level	7/5 - High Risk
Distance from Supply Location	1.8 km
Turn Direction	Left
Turn Radius	Not specified
Approach Speed	60 km/h
Recommended Maximum Speed	30 km/h
Safety Distance Required	Minimum 50m approach visibility
Road Surface	Good
Visibility	Moderate
Warning Signs Present	No
Guardrails Present	No
Driver Action Required	Reduce speed to 20 km/h, use horn, check mirrors

VISUAL EVIDENCE FOR TURN #7:

Visual evidence not available - Satellite View Not Available

- No guardrails: Maintain safe distance from edge
- No warning signs: Approach with extreme caution

CRITICAL TURN #8: 155.0° - HAIRPIN TURN - EXTREME CAUTION

Parameter	Value	
GPS Coordinates	21.226220, 81.768880 (view)	
Turn Angle	155.0° (Deviation from straight path)	
Risk Classification	HAIRPIN TURN - EXTREME RISK	
Risk Level	9/5 - High Risk	
Distance from Supply Location	2.2 km	
Turn Direction	Left	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed 20 km/h		
Safety Distance Required Minimum 50m approach visibility		
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Stop, check visibility, proceed at 10-15 km/h	

VISUAL EVIDENCE FOR TURN #8:

Visual evidence not available - Satellite View Not Available

- EXTREME CAUTION: Consider alternative route if possible
- Mandatory convoy travel with lead vehicle communication
- Complete stop before turn to assess conditions
- Hairpin turn: Use lowest gear for engine braking
- Sound horn continuously while navigating turn

CRITICAL TURN #9: 174.1° - HAIRPIN TURN - EXTREME CAUTION

Parameter	Value	
GPS Coordinates	21.223330, 81.769820 (view)	
Turn Angle	174.1° (Deviation from straight path)	
Risk Classification	HAIRPIN TURN - EXTREME RISK	
Risk Level	9/5 - High Risk	
Distance from Supply Location	2.5 km	
Turn Direction	Left	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	ed 20 km/h	
Safety Distance Required	equired Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Stop, check visibility, proceed at 10-15 km/h	

VISUAL EVIDENCE FOR TURN #9:

Visual evidence not available - Satellite View Not Available

- EXTREME CAUTION: Consider alternative route if possible
- Mandatory convoy travel with lead vehicle communication
- Complete stop before turn to assess conditions
- Hairpin turn: Use lowest gear for engine braking
- Sound horn continuously while navigating turn

CRITICAL TURN #10: 137.0° - HAIRPIN TURN - EXTREME CAUTION

Parameter	Value	
GPS Coordinates	21.214310, 81.780390 (view)	
Turn Angle	137.0° (Deviation from straight path)	
Risk Classification	HAIRPIN TURN - EXTREME RISK	
Risk Level	9/5 - High Risk	
Distance from Supply Location	4.2 km	
Turn Direction	Left	
Turn Radius	Not specified	
Approach Speed	60 km/h	
Recommended Maximum Speed	20 km/h	
Safety Distance Required	Minimum 50m approach visibility	
Road Surface	Good	
Visibility	Moderate	
Warning Signs Present	No	
Guardrails Present	No	
Driver Action Required	Stop, check visibility, proceed at 10-15 km/h	

VISUAL EVIDENCE FOR TURN #10:

Visual evidence not available - Satellite View Not Available

- EXTREME CAUTION: Consider alternative route if possible
- Mandatory convoy travel with lead vehicle communication
- Complete stop before turn to assess conditions
- Hairpin turn: Use lowest gear for engine braking
- Sound horn continuously while navigating turn

ACCIDENT PRONE TURNS ZONES ANALYSIS WITH DUAL VISUAL EVIDENCE (Risk score: 5.0)

Description	Value
Total Accident-Prone Locations Analyzed	33
Yearly Accident Frequency ≥ 11	33
Locations with Time-of-Day Risk Data	33
Locations with Weather-Related Risk > 5	33
Locations with Infrastructure Risk > 5	0
Locations with Traffic Volume Risk > 5	0
Analysis Confidence	High

ACCIDENT-PRONE TURNS ZONES CLASSIFICATION SYSTEM

Angle Range	Classification	Risk Level	Max speed	Safety Requirements
≥ 120°	HAIRPIN TURN	CRITICAL	10–15 km/h	Full stop, sharp steering, extreme caution, check mirrors, inch forward slowly
100°–119.9°	EXTREME SHARP TURN	EXTREME	15–20 km/h	Slow down significantly, use mirrors, stay tight inside lane
80°-99.9°	VERY SHARP TURN	HIGH	20 km/h	Reduce speed, use mirrors, no overtaking
60°-79.9°	HIGH-ANGLE TURN	MEDIUM	25–30 km/h	Brake before turn, keep lane position
45°-60°	SHARP TURN	LOW	30–40 km/h	Stay in lane, observe caution signage
30°-44.9°	MODERATE TURN	VERY LOW	40–50 km/h	Normal caution, light braking
< 30°	GENTLE CURVE	MINIMAL	50+ km/h	Maintain lane, standard driving

Moderate Accidental Prones

Location (GPS)	Link	Risk Level	Severity
21.22553, 81.78316	View	Critical	HIGH
21.22543, 81.78371	View	Critical	MEDIUM
21.22499, 81.78367	View	Critical	HIGH
21.22525, 81.78453	View	Critical	MEDIUM
21.22612, 81.78333	View	Critical	MEDIUM
21.22674, 81.78346	View	Critical	MEDIUM
21.22907, 81.77044	View	Critical	MEDIUM
21.22622, 81.76888	View	Critical	HIGH
21.22333, 81.76982	View	Critical	HIGH

Continued on next page... (Showing 9 of 33 total records)

Moderate Accidental Prones

21.21431, 81.78039	View	Critical	HIGH
21.21749, 81.78259	View	Critical	HIGH
21.21760, 81.78265	View	Critical	HIGH
21.19664, 81.77499	View	Critical	HIGH
21.18764, 81.77169	View	Critical	HIGH
21.13060, 81.75230	View	Critical	HIGH
21.13336, 81.74389	View	Critical	MEDIUM
21.11767, 81.73632	View	Critical	HIGH
21.11731, 81.73587	View	Critical	HIGH
21.11576, 81.73664	View	Critical	HIGH
20.74094, 81.57615	View	Critical	MEDIUM
20.68773, 81.51754	View	Critical	HIGH
20.56089, 81.37230	View	Critical	HIGH
20.55776, 81.37067	View	Critical	HIGH
20.30704, 81.46581	View	Critical	HIGH
20.24416, 81.50981	View	Critical	MEDIUM
20.10295, 81.58616	View	Critical	HIGH
20.10210, 81.58693	View	Critical	MEDIUM
19.56779, 81.67222	View	Critical	HIGH
19.09198, 82.04299	View	Critical	HIGH
19.08989, 82.04018	View	Critical	HIGH
19.08672, 82.04015	View	Critical	HIGH
19.08663, 82.04111	View	Critical	HIGH
19.08638, 82.04195	View	Critical	HIGH

CRITICAL SERVICE GAPS IDENTIFIED

* No critical service gaps identified - Good service coverage along route

COMPREHENSIVE EMERGENCY PREPAREDNESS CHECKLIST

- * First aid kit with bandages, antiseptic, pain relievers, emergency medications
- * Emergency contact numbers saved in phone and written backup copy
- * Vehicle emergency kit tools, spare tire, jumper cables, tow rope
- * Emergency water the Supply (minimum 2 liters per person for 24 hours)
- * Non-perishable emergency food (energy bars, nuts, dried fruits)
- * Flashlight with extra batteries or hand-crank/solar-powered model
- * Emergency blanket, warm clothing, and weatherproof gear
- * Portable phone charger/power bank with multiple cables
- * Emergency cash in small denominations (ATMs may be unavailable)
- * Vehicle documents in waterproof container (registration, insurance)
- * Road atlas or offline maps as backup to GPS navigation
- * Emergency whistle, signal mirror, or flares for signaling help
- * Multi-tool or knife, duct tape, and basic repair supplies
- * Personal medications for at least 3 days
- * Important documents (ID, medical info, emergency contacts)
- * Fire extinguisher (small vehicle type) and basic safety equipment

EMERGENCY RESPONSE ACTION PLAN

- * ASSESS THE SITUATION Ensure personal safety first, then assess severity
- * CALL FOR HELP Dial the appropriate emergency number (112 for general emergencies)
- * PROVIDE LOCATION Give precise GPS coordinates or landmark descriptions
- * STAY CALM Speak clearly and provide requested information to operators
- * FOLLOW INSTRUCTIONS Emergency operators are trained to guide you
- * SIGNAL FOR HELP Use emergency signals if phone coverage is unavailable
- * STAY WITH VEHICLE Unless immediate danger, stay near your vehicle
- * CONSERVE RESOURCES Ration water, food, and phone battery if stranded
- * MAINTAIN COMMUNICATION Update emergency contacts on your status
- * DOCUMENT INCIDENT Take photos/notes for insurance and authorities

COMPREHENSIVE NETWORK COVERAGE ANALYSIS - 4.0 Moderate Coverage

Coverage Metric	Value
Total Analysis Points	16
Good Coverage Areas	12 points (75.0%)
Weak Signal Areas (signal < 4)	0 points (0.0%)
Dead Zones Identified	4 areas (25.0%)
Overall Coverage Status	MODERATE
Network Reliability	MODERATE

SIGNAL QUALITY DISTRIBUTION ANALYSIS

Signal Quality Level	Points Count	Route %	Status
No Signal (Dead Zone)	4	25.0%	Critical
Poor Signal (1-2 bar)	0	0.0%	Attention
Fair Signal (2-3 bar)	0	0.0%	Good
Good Signal (3-4 bar)	2	12.5%	Good
Excellent Signal (4+)	10	62.5%	Good

DEAD ZONES - NO CELLULAR SERVICE (4 locations)

id	Zone Location (GPS)	Link	Impact Level	Recommendation
1	21.225530, 81.783160	View	CRITICAL	Use satellite communication
2	20.565330, 81.372300	View	CRITICAL	Use satellite communication
3	19.986310, 81.604460	View	CRITICAL	Use satellite communication
4	19.086340, 82.042560	View	CRITICAL	Use satellite communication

NETWORK COVERAGE RECOMMENDATIONS

- * Route has 4 dead zones consider satellite communication device
- * Route has 0 weak signal areas download offline maps before travel
- * Inform someone of your route and expected arrival time

EMERGENCY COMMUNICATION PLAN

Download offline maps before travel (Google Maps, Maps.me)

Inform someone of your route and expected arrival time

Carry satellite communication device for dead zones

Keep emergency numbers saved: 112 (Emergency), 100 (Police), 108 (Ambulance)

Consider two-way radios for convoy travel Identify nearest cell towers along the route

COMPREHENSIVE WEATHER CONDITIONS ANALYSIS - Low Risk (Risk Score: 1.0)

Weather Analysis Points	Summer (Apr-Jun)	Monsoon (Jul-Sep)	Autumn (Oct-Nov)	Winter (Dec-Mar)
Average Temperature	30.51°C	25.34°C	None°C	18.24°C
Temperature Range	27.95°C – 33.06°C	24.25°C – 26.73°C	None°C – None°C	16.06°C – 20.01°C
Weather Conditions were detected.	Hot, dry, dust storms, occasional thunderstorms	Heavy rainfall, thunderstorms, fog	Mild, pleasant, occasional rain, fog	Cold, foggy mornings, frost at night, icy roads
Weather Risk Assessment	High risk of vehicle overheating, tire blowouts, reduced visibility due to dust	Flooding, waterlogging, slippery roads, landslides	Slippery roads post-rain, morning/evening fog	Icy roads, black ice, frost, battery failure, poor visibility due to fog

Route: Northern Plains of India - Raipur Depot to MSHSD SUGAN PETROLEUM

The region experiences four major seasons with distinct weather patterns: Summer, Monsoon, Autumn, and Winter. Each season presents unique challenges to road users, particularly in terms of safety, vehicle performance, and infrastructure conditions. Below is a detailed breakdown of seasonal variations along with associated risks and corrective measures.

SEASONAL WEATHER VARIATIONS ACROSS THE ROUTE

Season	Major Risks	Key Driver Actions	Key Vehicle Checks	
Summer	Heat, dust storms, thermal damage	Stay hydrated, avoid peak hours	Cooling system, tire pressure	
Monsoon	Flooding, low visibility	Slow down, use lights/wipers	Brakes, wipers, electrical system check	
Autumn	Fog, dust, wet roads	Be cautious in foggy/damp conditions	Wiper blades, regular cleaning	
Winter	Ice, fog, frost, weak battery	Use winter tires, reduce speed	Antifreeze, battery health, fluids	

COMPREHENSIVE REGULATORY COMPLIANCE ANALYSIS

COMPLIANCE STATUS: NEEDS ATTENTION

VEHICLE & ROUTE COMPLIANCE DETAILS

Perameters	Value
Vehicle Type	Heavy Goods Vehicle
Vehicle Category	Heavy Goods Vehicle
AIS-140 GPS Tracking Required	YES (Mandatory)
Route Origin	Raipur Depot [1527]
Route Destination	MSHSD SUGAN PETROLEUM [41015467]
Total Route Distance	298.3 km
Estimated Travel Duration	7 hours 27 mins
Interstate Travel	NO

MANDATORY COMPLIANCE REQUIREMENTS

Requirement Category	Compliance Status	Action Required		
Valid Driving License	REQUIRED	Verify license category matches vehicle type		
Vehicle Registration	REQUIRED	Ensure current registration is valid		
Vehicle Insurance	REQUIRED	Valid comprehensive insurance is necessary		
Route Permits	CONDITIONAL	Required for interstate/heavy vehicle operations		
AIS-140 GPS Device	REQUIRED	Install certified GPS tracking device		
Driving Time Limits	REQUIRED	Maximum 10 hours of continuous driving		
Vehicle Fitness Certificate	REQUIRED	Ensure valid pollution & fitness certificates		
Driver Medical Certificate	REQUIRED	Maintain a valid medical fitness certificate		

COMPLIANCE ISSUES REQUIRING IMMEDIATE ATTENTION

- 1. AIS-140 GPS tracking device required Address before travel
- 2. Heavy vehicle weight restrictions may apply Address before travel

APPLICABLE REGULATORY FRAMEWORK

- * Motor Vehicles Act, 1988 Vehicle registration and licensing requirements
- * Central Motor Vehicles Rules, 1989 Technical specifications and safety
- * AIS-140 Standards GPS tracking and panic button requirements
- * Road Transport and Safety Policy (RTSP) Driver working hours
- * Interstate Transport Permits Required for commercial interstate travel
- * Pollution Control Board Norms Emission standards compliance
- * Goods and Services Tax (GST) Tax compliance for commercial transport
- * Road Safety and Transport Authority State-specific requirements

COMPLIANCE RECOMMENDATIONS

- 1. Ensure all vehicle documents are current and accessible
- 2. Verify the driver license category matches vehicle type
- 3. Check route-specific permits and restrictions
- 4. Install AIS-140 compliant GPS tracking device

NON-COMPLIANCE PENALTIES & CONSEQUENCES

- * Driving without valid license: Fine up to Rs 5,000 + imprisonment
- * Vehicle without registration: Fine up to Rs 10,000 + vehicle seizure
- * No insurance: Fine up to Rs 2,000 + vehicle seizure
- * AIS-140 non-compliance: Permit cancellation + heavy fines
- * Overloading violations: Fine Rs 20,000 + per excess ton
- * Driving time violations: License suspension + fines
- * Interstate without permits: Vehicle seizure + penalty
- * Environmental violations: Fine up to Rs 10,000 + registration cancellation

COMPREHENSIVE ELEVATION & TERRAIN ANALYSIS - Low Risk (Risk Score: 0.5)

Description	Value
Data Source	SRTM (Shuttle Radar Topography Mission) DEM (Digital Elevation Model) data (30m resolution), Topographic maps
Total Analysis Points	~100 elevation points sampled at 100 m intervals along the route (~10-12 km)
Minimum Elevation	214 m above sea level
Maximum Elevation	236 m above sea level
Average Elevation	225 m above sea level
Total Elevation Range	22 m (very minimal variation)
Terrain Classification	Flat Plains Terrain – Alluvial Soil (Indo-Gangetic Plain)
Driving Difficulty Level	Very Easy - No sharp slopes or rugged surfaces
Fuel Consumption Impact	Minimal - No gradient resistance; consistent throttle level
Significant Changes Detected	None - No sudden elevation gain/loss >5 m/km observed

TERRAIN CHARACTERISTICS & DRIVING CONDITIONS

Factor	Observation / Recommendation
Elevation Change	<20 m across the entire route
Ground Type	Stable alluvial soil - typical of Indo-Gangetic plains
Route Complexity	Straightforward – no hills, valleys, or obstacles
Recommended Terrain Classification	"Plains Terrain – Easy" – ideal for transportation and infrastructure projects
Engineering Requirement	Minimal grading or earthwork needed

ELEVATION-BASED DRIVING CHALLENGES

Factor	Details
Gradient	Very gentle throughout (<1.5% max slope); minimal driving resistance
Sharp Ascents/Descents	None detected - flat terrain typical of alluvial plains
Drainage Crossings	Minor culverts/canal crossings may cause bumpy segments, especially during monsoon
Dusty Roads or Soft Shoulders	In the village outskirts, soft ground post-rain may affect traction slightly
Visibility Impact from Terrain	Zero elevation-related blind spots
Overtaking Risk Zones	Encouraged due to flatness, but caution is advised on narrow rural roads during traffic

Conclusion: No elevation-based driving challenges detected. Road surface condition and traffic are more critical than terrain.

ELEVATION-SPECIFIC VEHICLE PREPARATION

Checklist Item	Recommendation
Braking System	Standard brake health check is sufficient – no steep descents
Transmission/Gear Handling	No need for gear downshifting - standard torque handling is adequate
Coolant System	Normal levels sufficient – no elevation-induced overheating risk
Suspension Check	Recommended if crossing unpaved or bumpy canal sections
Tire Pressure	Maintain OEM-recommended PSI – no elevation-related adjustments needed
Load Management	Full commercial load allowed – no climb-induced torque concerns

Conclusion: Standard vehicle maintenance is adequate. No special elevation-based prep required.

FUEL CONSUMPTION IMPACT ANALYSIS

Factor	Impact
Flat Terrain	Promotes consistent throttle control, reduces braking/acceleration frequency
Elevation Variation	Negligible – within 22 m band; no fuel impact from climbs
Traffic Stops / Speed Variance	Minor impact at junctions; more related to congestion than terrain
Route Type	Industrial roads + rural highways – mostly 2nd to 4th gear driving
Estimated Fuel Consumption Impact	Diesel trucks: ~11–15 km/l

Conclusion: Flat terrain enhances fuel efficiency. Fuel usage will be more affected by road quality and traffic than by elevation.

FINAL SUMMARY & ROUTE CLASSIFICATION

Route Type: Flat Plains (Alluvial Soil) Classification: "Plains Terrain – Easy"

Driving Difficulty: Very Low

Infrastructure Suitability: High – suitable for all types of transport and development

Special Considerations:

- Monsoon season may affect drainage crossings
- Post-rain conditions may soften shoulders in rural areas

COMPREHENSIVE TRAFFIC ANALYSIS - Low Risk (Risk Score: 0.5)

Metric	Value
Route Segments Analyzed	11
Overall Traffic Score	97.5 / 100
Traffic Condition	EXCELLENT
Average Travel Time Index	0.81
Average Current Speed	63.9 km/h
Average Free Flow Speed	51.8 km/h
Heavy Traffic Segments	0
Moderate Traffic Segments	0
Free Flow Segments	11
Worst Congestion Areas	0.0% of the route

TRAFFIC-BASED RECOMMENDATIONS

- 1. Check current traffic conditions before departure
- 2. Consider public transportation alternatives for heavily congested routes
- 3. Plan rest stops during low-traffic segments

COMPREHENSIVE ROAD QUALITY & SURFACE CONDITIONS - Medium Risk (Risk Score :2.1)

Description	Value
Total Analysis Points	11
Road Quality Issues Detected	11
Critical Condition Areas	0
High Risk Areas	0
Medium Risk Areas	11
Analysis Confidence	Medium

IDENTIFIED ROAD QUALITY ISSUES (11 Locations)

Location (GPS)	Map link	Road Type	Surface Quality	Width (m)	Under Construction	Risk Score	Severity
21.22553,81.78316	View	highway	good	7	No	3	medium
21.01688,81.72765	View	highway	good	7	No	3	medium
20.76425,81.63206	View	highway	good	7	No	3	medium
20.63137,81.44307	View	highway	good	7	No	3	medium
20.42965,81.40053	View	highway	good	7	No	3	medium
20.21032,81.50893	View	highway	good	7	No	3	medium
20.10384,81.58719	View	highway	good	7	No	3	medium
19.84565,81.63791	View	highway	good	7	No	3	medium
19.56232,81.67537	View	highway	good	7	No	3	medium
19.27185,81.88519	View	highway	good	7	No	3	medium
19.08626,82.04343	View	highway	good	7	No	3	medium

VEHICLE-SPECIFIC ROAD QUALITY RECOMMENDATIONS

- Heavy vehicles: Reduce speed by 20% in areas with road quality scores below 6/10
- Check tire pressure more frequently when traveling through poor surface areas
- Increase following distance by 50% in road quality risk zones
- Plan additional maintenance checks after routes with multiple road quality issues
- Consider alternative routes for high-value or sensitive cargo in critical condition areas
- Carry emergency repair kit for tire damage in poor road surface zones

COMPREHENSIVE ENVIRONMENTAL ASSESSMENT

Environmental Metric	Value
Total Analysis Points	0
Eco-Sensitive Zones	0
Air Quality Risk Areas	0
Weather Hazard Zones	0
Seasonal Risk Areas	0
Primary Risk Level	Low

ENVIRONMENTAL COMPLIANCE & BEST PRACTICES

- Comply with National Green Tribunal (NGT) regulations in eco-sensitive zones
- Follow Central Pollution Control Board (CPCB) emission standards
- Adhere to Wildlife Protection Act requirements in sanctuary areas
- Implement noise control measures during night hours in sensitive zones
- Ensure vehicle PUC (Pollution Under Control) certificate is current
- Carry emergency spill containment kit for hazardous cargo

COMPREHENSIVE EMERGENCY PREPAREDNESS - Low Risk (Risk Score: 0.5)

EMERGENCY SERVICES AVAILABILITY ASSESSMENT

Service Type	Availability Status	
Medical Facilities (Hospitals)	231 facilities identified	
Law Enforcement (Police)	12 stations identified	
Fire & Rescue Services	1 stations identified	
Emergency Clinics	231 clinics identified	
Pharmacies (24hr)	231 pharmacies identified	
Communication Reliability	75.0% coverage	
Coverage Gaps	4 dead zones, 0 weak signal areas	
Overall Service Coverage	GOOD	

CRITICAL EMERGENCY CONTACT NUMBERS - MEMORIZE OR SAVE

Emergency Service	Contact Number	When to Call	Response Type
National Emergency	112	Any life-threatening situation	Police / Fire / Medical
Police Emergency	100	Crime, accidents, theft	Law Enforcement
Fire Services	101	Fire, rescue, hazardous material	Fire & Rescue Team
Medical Emergency	108	Accidents, health emergencies	Ambulance Service
Highway Patrol	1033	Highway accidents, traffic support	Traffic Police
Women Helpline	1091	Women in distress	Women Safety Assistance
Disaster Management	1078	Natural disasters, emergencies	Disaster Response Team
Tourist Helpline	1363	Tourist-related emergencies or support	Tourist Support

Emergency Situation Standard Operating Procedure (SOP)

ROAD ACCIDENT PROTOCOL

Applicable to: Collision, crash, hitting stationary objects, or injury to personnel.

Immediate Actions:

- Stop the vehicle safely; engage handbrake, switch on hazard lights.
- Check for injuries; call 108 for ambulance if required.
- Inform control room or transport coordinator (via phone or VHF radio).
- Take photographs of damage, road conditions, and position of vehicles.
- If serious: Inform Police (100) and wait for clearance.
- Record witness contact (if any) and note surrounding conditions.

Driver Must Have:

- · First aid kit
- Emergency contact card (Appendix B)
- Accident report form

VEHICLE BREAKDOWN PROTOCOL

Applicable to: Engine failure, tire burst, brake malfunction, fuel issues

Immediate Actions:

- Pull over to safe zone; place reflective triangle 15m behind vehicle
- Use flashers and hazard lights to alert other road users
- Inform Control Room and nearest Highway Patrol (1033)
- Attempt minor fixes if safe (replace tire, check fuses)
- Call backup vehicle if repair not possible within 30 min

Caution: Do not attempt repair in curves, blind spots, or eco-sensitive zones.

WILDLIFE ENCOUNTER PROTOCOL

Applicable to: Forest fringe, wildlife corridor.

Immediate Actions:

- Do NOT honk, rev engine, or flash headlights
- Stop the vehicle quietly at a safe distance
- Monitor movement through side mirrors; do not exit vehicle
- Inform control room only if delay >15 min
- Take photos only if safe; do not get out

DO NOT:

- Litter or feed animals
- Use loud sounds or lights
- Exit vehicle in wildlife corridor

MEDICAL EMERGENCY PROTOCOL

Applicable to: Driver illness, passenger discomfort, heatstroke, trauma.

Immediate Actions:

- Park vehicle safely
- Apply basic first aid from onboard kit
- Call 108 or direct to nearest hospital (Appendix B)
- Guide emergency team using GPS coordinates from report
- Record incident time, symptoms, action taken