



IndianOil

JOURNEY RISK MANAGEMENT (JRM) STUDY

Salem Terminal TO P S V ENTERPRISES

Objective of the JRM Report

This JRM report is designed to ensure compliance with the Central Motor Vehicle Rules, 1989 (CMVR), AIS 140 standards, and the Road Transport Safety Policy (RTSP). It provides a comprehensive risk assessment for the transportation of hazardous materials along specified routes. By integrating these legal frameworks, the report offers a broad strategy for identifying and mitigating route-specific risks.

Regulatory Compliance

The report complies with the Central Motor Vehicles (Eleventh Amendment) Rules, 2022, mandating safe transportation practices for N2 and N3 category vehicles carrying hazardous materials. These rules require detailed route assessments, especially regarding road conditions, speed limits, and risk areas, to ensure safety compliance.

Risk Management Strategy

This report categorizes transportation routes into high-risk and medium-risk areas, with a focus on factors such as sharp turns, accident-prone regions, and elevation changes. The goal is to provide actionable

recommendations to minimize these risks, including speed regulations, driver warnings for hazardous zones, and the option of alternate routes.

Compliance with the Road Transport Safety Policy (RTSP)

The report integrates RTSP provisions, including mandatory driving hours, rest periods, and nighttime driving restrictions. It ensures that drivers follow official guidelines, such as taking prescribed rest breaks and avoiding dangerous road conditions like poor visibility, heavy crowds, or high-traffic areas during peak hours.

Emergency Preparedness and Response

The report highlights the significance of predetermined emergency stops for refueling, rest, and overnight stays. It includes protocols for safe responses to road hazards, alternative routes, and rerouting processes if roads are closed or severe weather arises. This aligns with the RTSP emphasis on driver safety and rapid emergency response.

Environmental Considerations

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

Journey Risk Mitigation

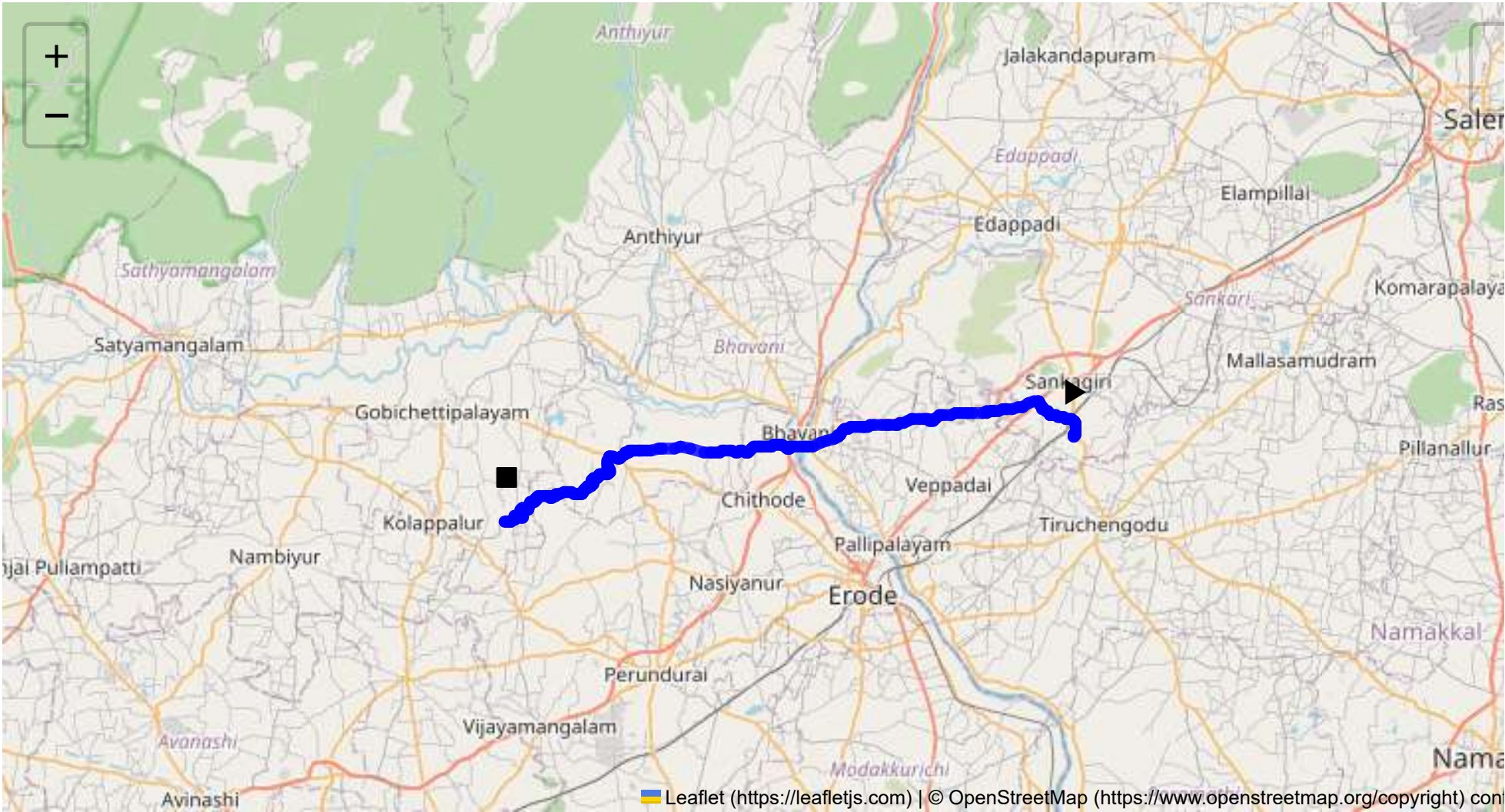
The report includes route-specific risk assessments, detailed journey charts, and defensive driving guidelines for each transport route. Integration with vehicle tracking systems guarantees real-time warnings on hazardous areas, speed limits, and mandatory stops, consistent with RTSP and CMVR safety norms.

Compliance with Government Directives

This report fully adheres to governmental directives regarding hazardous material transportation, implementing mandatory speed limits, nighttime driving restrictions, and comprehensive driver briefings and real-time alerts about route-related risks.



Route Summary:
Total Distance: 51.51 km
Estimated Duration: 1.2 hours
Adjusted Duration (Heavy Vehicle): 1.5 hours
Start: (11.4381, 77.8734)
End: (11.380075, 77.478145)



Risk Spots

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
0	Turn	11.43822, 77.87348	15 KM/Hr	0.01 km
1	Turn	11.43961, 77.87341	15 KM/Hr	0.14 km
2	Turn	11.44029, 77.87544	15 KM/Hr	0.31 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
3	Turn	11.44893, 77.87413	15 KM/Hr	1.36 km
4	Turn	11.45127, 77.86734	15 KM/Hr	2.15 km
5	Turn	11.45354, 77.85798	15 KM/Hr	3.18 km
6	Turn	11.45350, 77.85700	15 KM/Hr	3.33 km
7	Turn	11.45845, 77.85141	15 KM/Hr	4.12 km
8	Turn	11.46303, 77.84945	15 KM/Hr	4.65 km
9	Turn	11.45542, 77.81725	15 KM/Hr	8.37 km
10	Blind Spot	11.45634, 77.81673	10 KM/Hr	8.51 km
11	Blind Spot	11.44530, 77.72783	10 KM/Hr	18.66 km
12	Turn	11.43000, 77.67564	15 KM/Hr	24.88 km
13	Turn	11.43273, 77.67018	15 KM/Hr	25.59 km
14	Turn	11.43346, 77.66700	15 KM/Hr	25.96 km
15	Turn	11.43222, 77.65346	15 KM/Hr	27.46 km
16	Turn	11.42902, 77.57113	15 KM/Hr	36.72 km
17	Turn	11.42837, 77.56935	15 KM/Hr	36.87 km
18	Turn	11.42707, 77.56407	15 KM/Hr	37.59 km
19	Turn	11.42693, 77.56227	15 KM/Hr	37.76 km
20	Turn	11.42329, 77.55798	15 KM/Hr	38.43 km
21	Turn	11.42504, 77.55077	15 KM/Hr	39.24 km
22	Turn	11.41575, 77.55084	15 KM/Hr	40.26 km
23	Turn	11.41421, 77.55123	15 KM/Hr	40.46 km
24	Turn	11.41221, 77.54372	15 KM/Hr	41.32 km
25	Turn	11.41076, 77.54344	15 KM/Hr	41.52 km
26	Turn	11.41046, 77.54037	15 KM/Hr	41.83 km
27	Turn	11.40650, 77.53959	15 KM/Hr	42.32 km
28	Turn	11.40426, 77.53802	15 KM/Hr	42.67 km
29	Turn	11.40474, 77.53650	15 KM/Hr	42.80 km
30	Turn	11.40339, 77.53469	15 KM/Hr	43.08 km
31	Turn	11.39990, 77.53242	15 KM/Hr	43.51 km
32	Turn	11.39952, 77.52832	15 KM/Hr	44.01 km
33	Turn	11.39920, 77.52726	15 KM/Hr	44.16 km
34	Turn	11.40101, 77.52239	15 KM/Hr	44.70 km
35	Turn	11.39709, 77.51033	15 KM/Hr	46.15 km
36	Turn	11.39708, 77.50074	15 KM/Hr	47.17 km

	RiskSpotType	Coordinates	Speed Limit	Distance from Start
37	Turn	11.39641, 77.50002	15 KM/Hr	47.32 km
38	Turn	11.39502, 77.49983	15 KM/Hr	47.45 km
39	Turn	11.39434, 77.49921	15 KM/Hr	47.57 km
40	Turn	11.39362, 77.49711	15 KM/Hr	47.80 km
41	Turn	11.39304, 77.49617	15 KM/Hr	47.95 km
42	Turn	11.39090, 77.49455	15 KM/Hr	48.23 km
43	Turn	11.38872, 77.49435	15 KM/Hr	48.49 km
44	Turn	11.38929, 77.49042	15 KM/Hr	48.78 km
45	Turn	11.38382, 77.49115	15 KM/Hr	49.60 km
46	Turn	11.38404, 77.48592	15 KM/Hr	50.14 km
47	Turn	11.38324, 77.48478	15 KM/Hr	50.29 km
48	Turn	11.38181, 77.48496	15 KM/Hr	50.44 km
49	Turn	11.38100, 77.48286	15 KM/Hr	50.74 km
50	Turn	11.38036, 77.48211	15 KM/Hr	50.86 km
51	Turn	11.38096, 77.47919	15 KM/Hr	51.19 km

Emergency Services

	type	name	coordinates	side_of_road
1	hospital	Government Hospital	11.4525596, 77.7749426	Opposite Side
3	hospital	Dhanvantri Multi Speciality Hospital	11.451362, 77.766602	Opposite Side
4	hospital	Dhanvanthri Hospital	11.4496712, 77.7593772	Opposite Side
5	hospital	J.K.K. Trust Hospital	11.4445841, 77.7307962	Driver's Side
7	hospital	Shri Sathyanarayana Hospital	11.4291297, 77.6913408	Driver's Side
9	hospital	Thanish Siddha Hospital	11.430003, 77.674964	Driver's Side
10	clinic	Harshitha Clinic	11.4313207, 77.674718	Opposite Side
11	hospital	Sri Kaalangi Siddhar Mooligai Vaithiya Nilayam	11.432369, 77.674894	Opposite Side
12	clinic	G.K Clinic	11.4297244, 77.6749715	Driver's Side
13	hospital	PST Mahaa Hospital	11.4312903, 77.6585751	Driver's Side
14	hospital	Dharun Hospital	11.4223638, 77.5597735	Driver's Side
15	hospital	Dr. Ramaswamy Hospital	11.4249065, 77.5535658	Opposite Side

Rest Stops

	type	name	coordinates	side_of_road
0	fuel	SLOA Bunk - Unit II	11.4543854, 77.8052665	Driver's Side
2	restaurant	Canteen	11.4478386, 77.7705441	Driver's Side
6	fuel	Reliance	11.4325168, 77.6912865	Opposite Side
8	fuel	Indian Oil	11.4321177, 77.6765153	Opposite Side

Welcome to the Journey Risk Management Study

1. Overview of the Route Map

The route starts at CVQF+23W, Sangagiri, Tamil Nadu, and ends at 9FJH+27 Nagadevampalayam, Tamil Nadu, covering approximately 51.51 kilometers. The journey passes through several waypoints: Puthur, Padaiveedu, Sevagoundanur, and Kavindapadi. This route primarily follows state highways and local roads, consisting of both urban and rural environments.

2. Typical Weather Conditions and Potential Weather-Related Hazards

Tamil Nadu experiences a tropical climate. The route is subject to seasonal monsoons from October to December, which could lead to heavy rains and potentially flooding, reducing visibility and road traction. Summers (March to June) are hot and humid and may cause equipment overheating. It is important to monitor weather forecasts for cyclones during monsoon transitions.

3. Analysis of Traffic Patterns

Traffic can be variable, with congestion likely near urban centers such as Sangagiri and Sevagoundanur. Peak hours typically occur from 8:00 to 10:00 AM and 5:00 to 7:00 PM. Local festivals and market days can significantly impact traffic density.

4. Assessment of Road Quality and Infrastructure

Road quality varies along the route, from well-maintained highways to narrower local roads with occasional potholes and uneven surfaces. Some rural areas may have insufficient signage or lighting. Ongoing or unmarked construction poses additional hazards.

5. Suggestions for Alternative Routes for Emergencies

For alternatives, consider NH44 via Salem for faster access to major facilities, or local bypass roads to avoid congested areas. However, these may involve longer distances.

6. Summary of Local Regulations Affecting Hazardous Material

Transport

Tamil Nadu requires strict compliance with national hazardous material transport regulations. Transporters must ensure proper labeling, documentation, and adherence to restricted movement times in urban areas. Night transit in densely populated areas is typically restricted.

7. Overview of Historical Incidents Involving Heavy Vehicles or Hazardous Materials

There have been sporadic incidents of vehicle overturns on local roads due to sharp curves or speeding. While no major recent incidents involving hazardous materials have been reported, ongoing diligence and adherence to regulations are crucial.

8. Environmental Considerations and Sensitive Areas

The route passes agricultural regions, particularly around Bhavani. Drivers should be cautious of livestock and stray animals. Additionally, proper waste disposal and fuel management are critical to avoid contamination of water bodies.

9. Analysis of Communication Coverage

Communication coverage is generally good, but some rural stretches might have weaker signals. Ensure that drivers have mobile networks or portable satellite connectivity if available, especially near Padaiveedu.

10. Estimated Emergency Response Times for Different Route Segments

Emergency response times can vary from 20 to 50 minutes depending on proximity to urban centers. Areas nearer to Sangagiri and Sevagoundanur typically have quicker access to emergency services.

12. Overall Summary of Risk Assessment

Overall, the route presents common risks associated with rural and urban drives, including weather influences, variable traffic patterns, and road quality concerns. Preparations for adverse weather, peak traffic, and emergency scenarios can mitigate most risks. Adherence to local regulations and awareness of environmental sensitivities are important for transporting hazardous materials safely. Communication strategies should be tailored to cover weaker network areas, ensuring continuous coordination.

Route Photos of Risky Spots



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 0.31 km

Coordinates: 11.44029, 77.87544



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 1.36 km

Coordinates: 11.44893, 77.87413



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 2.15 km
Coordinates: 11.45127, 77.86734



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 3.18 km
Coordinates: 11.45354, 77.85798



Risk Type: Turn
Speed Limit: 15 KM/Hr
Distance from Start: 3.33 km
Coordinates: 11.45350, 77.85700



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.12 km

Coordinates: 11.45845, 77.85141



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 4.65 km

Coordinates: 11.46303, 77.84945



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 8.37 km

Coordinates: 11.45542, 77.81725



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 8.51 km

Coordinates: 11.45634, 77.81673



Risk Type: Blind Spot

Speed Limit: 10 KM/Hr

Distance from Start: 18.66 km

Coordinates: 11.44530, 77.72783



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 24.88 km

Coordinates: 11.43000, 77.67564



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 25.59 km

Coordinates: 11.43273, 77.67018



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 25.96 km

Coordinates: 11.43346, 77.66700



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 27.46 km

Coordinates: 11.43222, 77.65346



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 36.72 km

Coordinates: 11.42902, 77.57113



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 36.87 km

Coordinates: 11.42837, 77.56935



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 37.59 km

Coordinates: 11.42707, 77.56407



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 37.76 km

Coordinates: 11.42693, 77.56227



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 38.43 km

Coordinates: 11.42329, 77.55798



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 39.24 km

Coordinates: 11.42504, 77.55077



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 40.26 km

Coordinates: 11.41575, 77.55084



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 40.46 km

Coordinates: 11.41421, 77.55123



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 41.32 km

Coordinates: 11.41221, 77.54372



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 41.52 km

Coordinates: 11.41076, 77.54344



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 41.83 km

Coordinates: 11.41046, 77.54037



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 42.32 km

Coordinates: 11.40650, 77.53959



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 42.67 km

Coordinates: 11.40426, 77.53802



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 42.80 km

Coordinates: 11.40474, 77.53650



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 43.08 km

Coordinates: 11.40339, 77.53469



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 43.51 km

Coordinates: 11.39990, 77.53242



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 46.15 km

Coordinates: 11.39709, 77.51033



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 47.17 km

Coordinates: 11.39708, 77.50074



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 47.32 km

Coordinates: 11.39641, 77.50002



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 47.45 km

Coordinates: 11.39502, 77.49983



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 47.57 km

Coordinates: 11.39434, 77.49921



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 47.80 km

Coordinates: 11.39362, 77.49711



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 47.95 km

Coordinates: 11.39304, 77.49617



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 48.23 km

Coordinates: 11.39090, 77.49455



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 48.49 km

Coordinates: 11.38872, 77.49435



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 48.78 km

Coordinates: 11.38929, 77.49042



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 49.60 km

Coordinates: 11.38382, 77.49115



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 50.14 km

Coordinates: 11.38404, 77.48592



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 50.29 km

Coordinates: 11.38324, 77.48478



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 50.44 km

Coordinates: 11.38181, 77.48496



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 50.74 km

Coordinates: 11.38100, 77.48286



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 50.86 km

Coordinates: 11.38036, 77.48211



Risk Type: Turn

Speed Limit: 15 KM/Hr

Distance from Start: 51.19 km

Coordinates: 11.38096, 77.47919

[Download Interactive Map](#)

