



# **KANIV 108 Ambulance Project**



**Reimagining  
Emergency  
Medical  
Response in  
Kerala**

*Timely Response. Trusted Care.  
Transforming Lives.*

# Vision and Mission



## Vision

To provide every resident of Kerala – from the urban centre to the remotest village – with immediate, high-quality emergency medical transport through a unified, technology-enabled system.

## Mission

To institutionalize the 108 emergency ambulance service under the KANIV initiative, ensuring seamless coordination, advanced care, and responsive governance. Through partnerships and robust infrastructure, we aim to reduce preventable deaths, especially in trauma, maternal, and neonatal emergencies.

## Core Principles

1

**Equity:** No one left behind

2

**Responsiveness:** Every second counts

3

**Quality:** Trained personnel, modern equipment

4

**Accountability:** Transparent governance and monitoring

# About the KANIV Initiative

**KANIV**



KANIV stands for Kerala Ambulance Network for Immediate Value – a flagship initiative of the Department of Health and Family Welfare, Government of Kerala, under the aegis of the National Health Mission (NHM).

KANIV integrates multiple pre-hospital care services under a single emergency response platform (108). It replaces fragmented emergency systems with a centralized, real-time command and dispatch network.

## Why 108?

01

Recognized nationally as the emergency helpline for ambulances

02

Simple, toll-free, 24x7

03

Connects citizens directly to trained responders

All the services are done under the supervision of a trained EMT (Emergency medical Technician).

- Oxygen cylinders
- Suction pumps
- Pulse oximeter
- Nebuliser
- BP apparatus
- Scoop structure
- Cervical Collar
- Spine board



# The Need for a Unified Ambulance System in Kerala

## Challenges Before KANIV

1. Multiple ambulance services with varying response times
2. Lack of fleet standardization
3. Fragmented dispatch mechanisms
4. Inconsistent patient handling and record-keeping

## KANIV 108 bridges these gaps with

1. Uniform protocols
2. Statewide integration
3. Real-time tracking and response



## Healthcare Emergency Landscape in Kerala

**~42,000**  
road accidents  
reported  
annually

**7%**  
of maternal  
deaths linked to  
delayed  
transport

High prevalence  
of cardiac  
emergencies  
and NCDs

Floods and  
coastal  
challenges  
require agile  
medical access

Urban-rural  
disparity in  
emergency  
response time

# Operational Model and Key Components

## MANAGEMENT FRAMEWORK



## KEY SERVICE COMPONENTS

### Emergency Response Centre (ERC)

Operates 24x7, receives 108 calls, triages and dispatches ambulances

### Ambulance Fleet

- Mix of Advanced and Basic Life Support vehicles
- Equipped for trauma, cardiac, pediatric, and maternal cases

### Emergency Medical Technicians (EMTs)

Certified professionals trained in pre-hospital care

### Technology Integration

GIS-based routing, live dashboards, call analytics

All the ambulances are fitted with GPS devices and controlled by the control room situated at technopark Thiruvananthapuram

Trained Emergency technicians sitting at Technopark control room collect information's from the caller and identify the nearest free ambulance and direct the ambulance to the caller.

EMT after examining the patient will take the patient to the nearby hospital based on the seriousness of the patient.



All district there is a district level committee with district collector as chairman and the members include Superintendent of police, District Medical officer, District Programme Manager, and Regional transport Officer

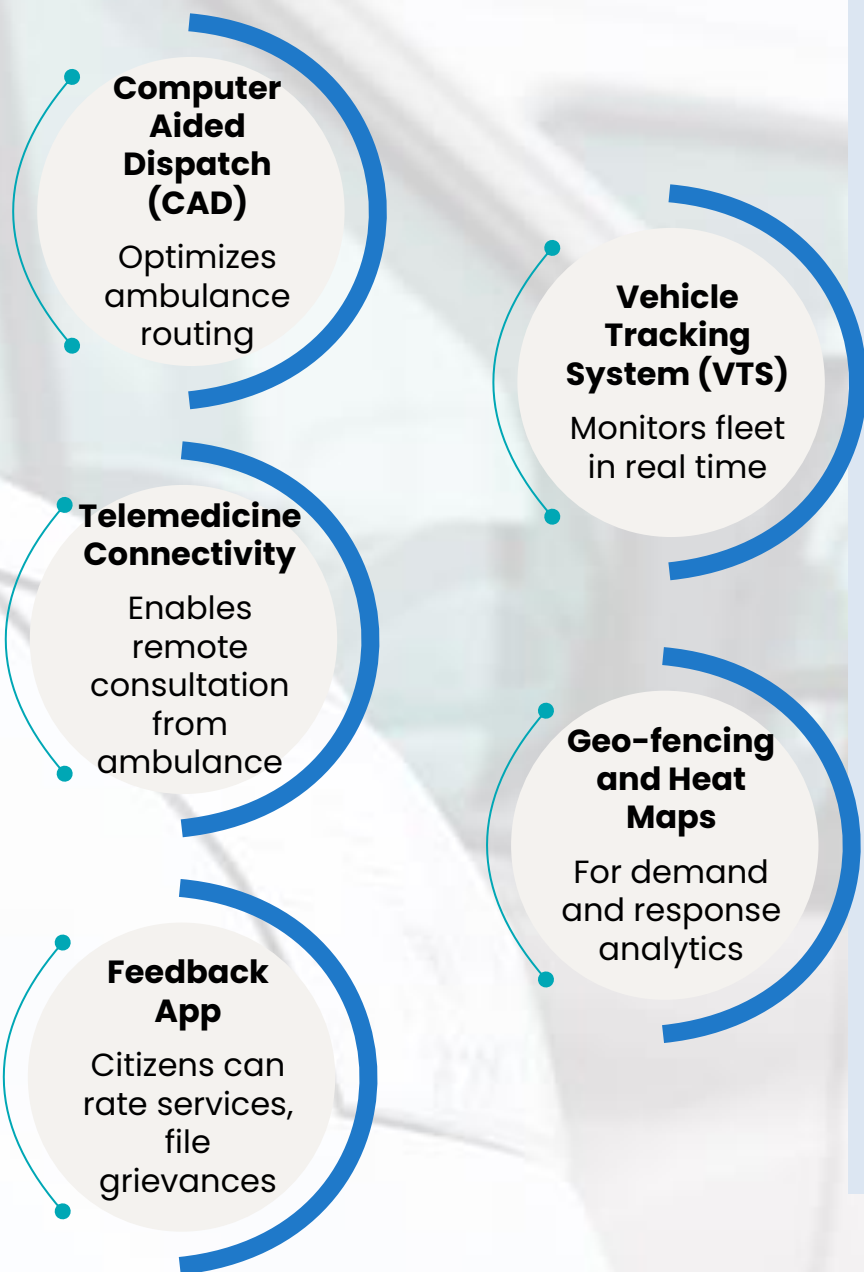
State Level committee with Health Secretary as Chairman and Director of Health and Director of Medical Education as members.

All the vehicles are displayed with a toll-free number (18005992270) to address the grievance of the users of the ambulances.

# Infrastructure and Technology Backbone



## Technology Stack



Advanced Life Support (ALS) ambulances



Basic Life Support (BLS) ambulances



Two-wheeler paramedical responders (pilots) in dense areas



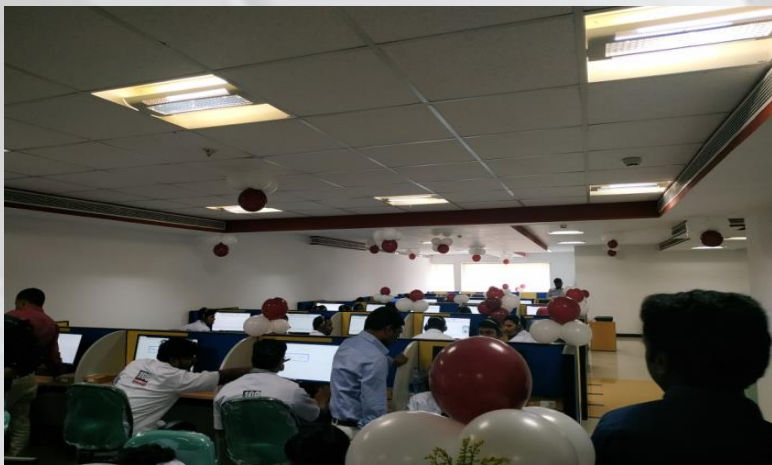
Boat ambulances for backwater/coastal regions



315 ambulances will be in service from 8:00 AM – 8:00 PM  
150 ambulances will be available from 8:00 PM TO 8:00 AM

## Fleet Configuration

The control room for KANIV-108 is set up by the operating agency M/s. GVK EMRI at Techno Park Thiruvananthapuram at Thejaswini building 4th floor comprising of 5400 sq feet.



### The highlights of the control room are

- 2 Integrated Services Digital Network (ISDN) Lines
- Capacity to handle 10,000 calls and 1000 transfers per day
- Three shifts per day and capacity of 35 emergency response officers per shift.
- State of the art software to capture all data automatically.
- Computer Telephony Integration
- Voice Logger System
- Geographic Information System (GIS) Maps
- Global positioning System (GPS)
- Automatic Vehicle Location and Tracking
- General Packet Radio Service (GPRS) network

### Staff

- Pilots
- Basic Qualification
- LMV License with badge

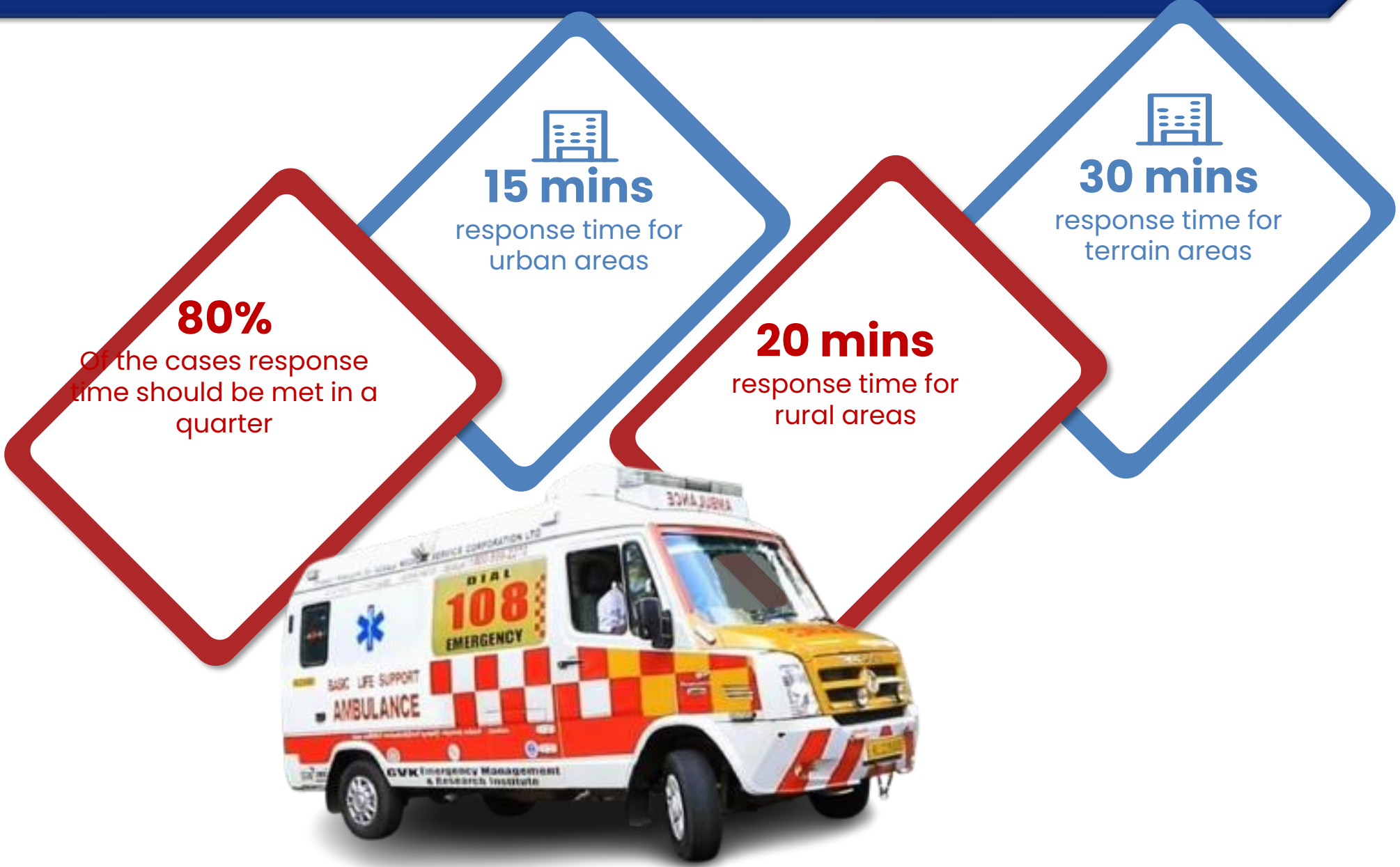
### Emergency Medical Technicians (EMT)

- Basic Qualification
- Male Nurse (BSc/ General Nursing)

# Impact



## Response Time



### Key Beneficiary Groups

- 01 Pregnant women under Janani Shishu Suraksha Karyakram (JSSK)
- 02 Accident victims
- 03 Infants and neonates
- 04 Senior citizens and chronic patients
- 05 Disaster-affected communities (floods, landslides, etc.)

## Equity Impact

Reaches tribal hamlets and remote Idukki-Wayanad corridors

Special fleet for coastal and water-locked regions

Districts	12 HRS	24 HRS	Total
Alappuzha	9	9	18
Ernakulam	16	16	32
Idukki	8	7	15
Kannur	11	10	21
Kasargod	7	7	14
Kollam	12	9	21
Kottayam	9	8	17
Kozhikode	17	14	31
Malappuram	18	14	32
Palakkad	15	13	28
Pathanamthitta	8	7	15
Thiruvananthapuram	10	18	28
Thrissur	19	13	32
Wayanad	6	5	11
<b>Total</b>	<b>165</b>	<b>150</b>	<b>315</b>

## List of ambulance in each district



# Institutional and Governance Framework



## Oversight Mechanism

**State Health Mission Directorate:**  
*Nodal agency*

**District Health Officers:**  
*Local operational monitoring*

**State Steering Committee:**  
*Meets quarterly for review*

**SLA Monitoring Team:**  
*Evaluates performance against KPIs*

## KPIs Monitored

**Response time thresholds**

**Fleet uptime percentage**

**EMT presence compliance**

**Citizen satisfaction scores**

**Number of inter-facility transfers (IFTs)**



Monthly public dashboard



Helpline for grievance redressal



Third-party audits

**Transparency Mechanisms**

# Future Roadmap and Expansion Plans

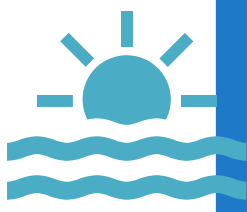


## Strategic Additions Planned



Dedicated Pediatric & Neonatal Ambulances

Boat Ambulances in Kuttanad, Alappuzha, Vypin & Kozhikode



Solar-powered standby ambulances in tribal blocks

AI-enabled Emergency Demand Forecasting



Integration with 104 Telehealth & eSanjeevani

Seamless EMR integration with public hospitals

## Innovation Partnerships Invited For



Ambulance fabrication and retrofitting



Health-tech integration and tele-ICU



Training & capacity building for EMTs



Mobile app-based community alert systems





**KERALA MEDICAL  
SERVICES  
CORPORATION**

**Let's Build a  
Life-Saving  
Network –  
Together**



**Whether you're a hospital, tech provider,  
donor, or public health stakeholder – KANIV  
108 welcomes your collaboration.**

**Get Involved | Contact Us  
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