

Revolutionizing Road Infra with Modern Equipment, Technologies, Sustainable Materials and Policy Guidelines

February 29th - March 1st, 2024, Manekshaw Centre, New Delhi

eDAR/iRAD: Towards Better Accident Reporting and Management
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India Chapter

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Road Safety: Numbers at a Glance

**No. of Vehicles
in India**



Approx 37 Crore
(2.5 Cr added in 2023)

01

**No. of Driving
Licenses**



Approx. 21 Crore
(1.1 Cr added in 2023)

02

**No. of Road
accidents in 2022**



4,61,312 (+ 11.9%)

03

No. of Deaths



1,68,491 (+ 9.4%)

04

**No. of Grievous
Injuries**



4,43,366
(+ 15.3 %)

05

**80% of victims
in prime age**



18-45 years

06

**Social & economic
impacts**



Huge social and
economical impacts

07

Goal



Goal to halve accident
and fatality count by 2030

08



Major Reasons for Road Accidents and its Contributing Factors

Major Reasons of Road Accident

- Over speeding
- Dangerous/ drunken/ careless driving
- Wrong-side driving
- Use of mobile phones
- Non-compliance of traffic rules

01

Major Contributing Factors

- Inadequate enforcement
- Bad road conditions/ Engineering defects
- Poor signalling/ signages
- Bad lighting/ weather condition
- Untrained/ignorant drivers
- Unsafe vehicles
- Non-use of safety devices

02

Reasons for High / Fatality

- Inadequate Trauma Care Facilities
- Limited ambulance service
- Delayed reporting
- Missing the golden hour
- Medico-legal issues

03

iRAD/ eDAR: Basic Concept

Project funded by MoRTH. Solution provided by NIC/NICSI and IITM. Monitored by Hon'ble Supreme Court

Created a Centralized Database of Accidents and related details

Data Capture Mode

Available as Mobile app (both IOS and Android) and Web application modes

Stakeholders

MoRTH, Police, Transport, Health, Highways, Insurance, MACT, NALSA etc.

Initiated in 2021 in 6 pilot states
iRAD – Implemented in all states
eDAR – Under Implementation

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Work-flow based data entry and processing by users



GPS Location, Timestamp from accident site



Captures images, video as evidence



Fetches data from Vahan, Sarathi for vehicle/ driver info



Links with CCTNS and helps in generating FIR, investigations



Helps detailed analysis of data to identify root cause



eDAR further integrates Insurance Cos, CLSAs, MACT

1 Million+ Accidents details captured
60% with fatalities or grievous injuries
40-50 thousand entries per Month

iRAD/eDAR: Objectives

- Collect detailed accident data from the spot
- Gather digital evidences for legal and analytical needs
- Facilitate detailed analysis for identifying root cause
- Help identify black spots, road engineering defects etc.
- Facilitate timely help to accident victims
- Bring all stakeholders in a single platform
- Enable real-time sharing of data among stakeholders
- Enrich data with linkages from Vahan, Sarathi, CCTNS, NHA
- Facilitate investigation, FIR generation, Legal proceedings
- Help time-bound claim settlement process for accident victims
- Link Police, claimants, Insurance Cos., Courts, SLSA etc



iRAD/ eDAR: Achievements

- iRAD Implemented in all 36 States/ UTs across the country
- Started in 2021 in select districts in 6 states, extended in phases
- More than 1 Million accident cases recorded in last 3 years
- Detailed data collected through Police, Transport, Road and Health
- Developed and implemented by NIC/ NICS, Data Analysis by IIT Madras
- Data-based identification of accident-prone black spots/ black stretches
- Grid Analysis facility to analyse focussed analysis of accidents and trends
- Integrated with CCTNS in many states, facilitates investigation, FIR, Reporting
- eDAR developed to facilitate management of compensation to accident victims
- Hon'ble Supreme Court Division Bench viewed and appreciated eDAR system
- Implementation of integrated eDAR solution under way in states





Thank You

