

# PRESENTATION BEFORE NRSC

By

A.V.Sinha, Former DG(RD)&SS  
& Chairman of Working Group on  
**“Engineering (Roads)”**

# Road Engineering Aspects of Safety

- **Road Geometry** Design (curves, grades, camber, super elevation)
- Road **Signs, Markings and Delineation** (mandatory, warning, informatory)
- Road **Junctions** (layout, geometry, capacity, control)
- **Access Control** ( segregation, acceleration/deceleration, VRUS)
- **Safety barriers** (high embankments, medians, bridges, built up areas)
- **Visibility** (roads, junctions)
- Facility for **Driving maneuvers** (merging, diverging, weaving)

There are IRC/ MORTH standard for each of these

# Where is the Problem? (1)

- Whether all the standards have been followed in the projects at each stage of project life:
  - Planning
  - Design
  - Construction
  - Operation
- How can the problem be diagnosed
  - Safety Audit

# Where is the Problem? (2)

- Whether the standards themselves are adequate to take care of safety

Or

- Whether the Standards need to be improved
- How can the problem be solved?
  - Comprehensive review of the design standards
  - Incorporating new/improved standards

# Road map for solving the problems

- **Capacity building** in areas such as
  - Safety Audit (Training and accreditation of auditors)
  - Design and Operation (Training of Engineers and Police)
  - Creating Centres of Excellence and training
- **Interdisciplinary coordination** and data sharing among Road/ Transport Authorities, Police, Trauma care Centres
  - Accident data and analysis for improving design
  - Traffic Management/ Incident management for safe operation
- **Ownership of road safety**
  - Creating National Road Safety and Traffic Management Board

# Action Plan

- Replace worn out/ **missing road signs and markings** for the entire network (even before safety audit)
- Conduct **Safety Audit** of entire network
- **Implement** Safety Auditor's recommendations
- Concurrently, request IRC to **review all standards** with safety focus and bring out changes or new standards
- Create **Centres of Excellence**
- Create **National Road Safety and Traffic Management Board** with jurisdiction over all agencies responsible for safety
- Provide adequate **funding** for all the above