

Impediments to Road Safety Audits in India

By

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Injuries - **50 million**

Deaths - **1.3 million**

And still **rising..**

Too Common to Comment

- Globally everyday 3000 people die in road accidents, the equivalent of 10 passenger plane crashes.
- Every year road accidents cost the countries of the developing world about US\$ 65 billion, more than they receive from all aid agencies in official aid.



Indian Scenario

- Developing countries account for approximately 85% of the deaths worldwide
- India accounts for 10% of world road deaths
- It loses around 3% of its GDP on road traffic accidents.
- Majority of the accident victims fall in the age group 15-39 year (around 50-65%) followed by 40-59 years (around 20 to 30%)



Highway Development Programme and Road Safety in India

- Massive development and improvement of road network.
- Highway network upgraded to 4/6 lane roads
- Provided golden chance for highway engineers and planners to plan and build road safety features
- However, initial experience indicates, it is not so



Mumbai-Pune Expressway



Impact of Up-gradation and widening of Highways

- Highway Development increased mobility for high speed traffic.
- But made life more miserable for VRU's as they were not experienced to cope with such road environment
- No adequate pedestrian footways provided or proposed.
- Required underpasses or pedestrian crossings not provided.





Absence Of Bus Bays



Non Provision of facilities to cyclists

What is Road Safety Audit

- RSA is a proven methodology for ensuring that various safety deficiencies and designs are reviewed at appropriate stage in a cost-effective way.
- An objective approach to the assessment of accident potential.
- This risk objectivity is ensured through independent assessment of schemes by persons who are independent of the original design team.
- It should form an integral part of highway planning, design, construction and maintenance



Road Safety Audits in India

- RSA have been undertaken mainly for some projects, which needed external funding and for which lending agencies insisted.
- Such RSAs were invariably delayed and conducted at a much later time than it should have been.



Factors Responsible for RSAs Not Taking Roots in India

Lack of Commitment to implementation of RSAs within highway agencies

- Limited understanding and agreement within transportation agencies on the importance of RSA
- RSA is not institutionalized within highway organization at national or state levels
- Undertaken only for World Bank or ADB funding projects



Organizational Commitment at Various levels



Abnormal delays in Audits to be undertaken and completed

- Lots of delays due to administrative reasons – RSA reports were hardly made use of.
- RSA's planned for western corridors or Golden Quadrilateral at design stage could take place only after they were actually built.
- Full cycle of RSA process was not followed
- Neither completion meetings were held nor were Response reports prepared.



Lack of Properly Trained / Experienced Auditors

- In India, at present there is no formal qualification in Safety Audit or Road Safety Engineering
- Training Programmes are not in place to produce road Safety Auditors
- Training in the audit process must be recognized





Lack of Cooperation among Stakeholders

- Cooperation among the client, the designers and the auditors is required to perform the audits and use the results.
- However, there is hardly any cooperation
- Design consultants are not available for any changes in the project design, if required due to big time lag between design process and Audit process .



Lack of Awareness About the Distinction between RSA's and Design Checks

- **Auditors do not understand that RSA goes beyond the strict application of standards.**
- **Mainly due to lack of their exposure to safety engineering in their professional education, training and experience.**



Absence of Road Safety Policy in India

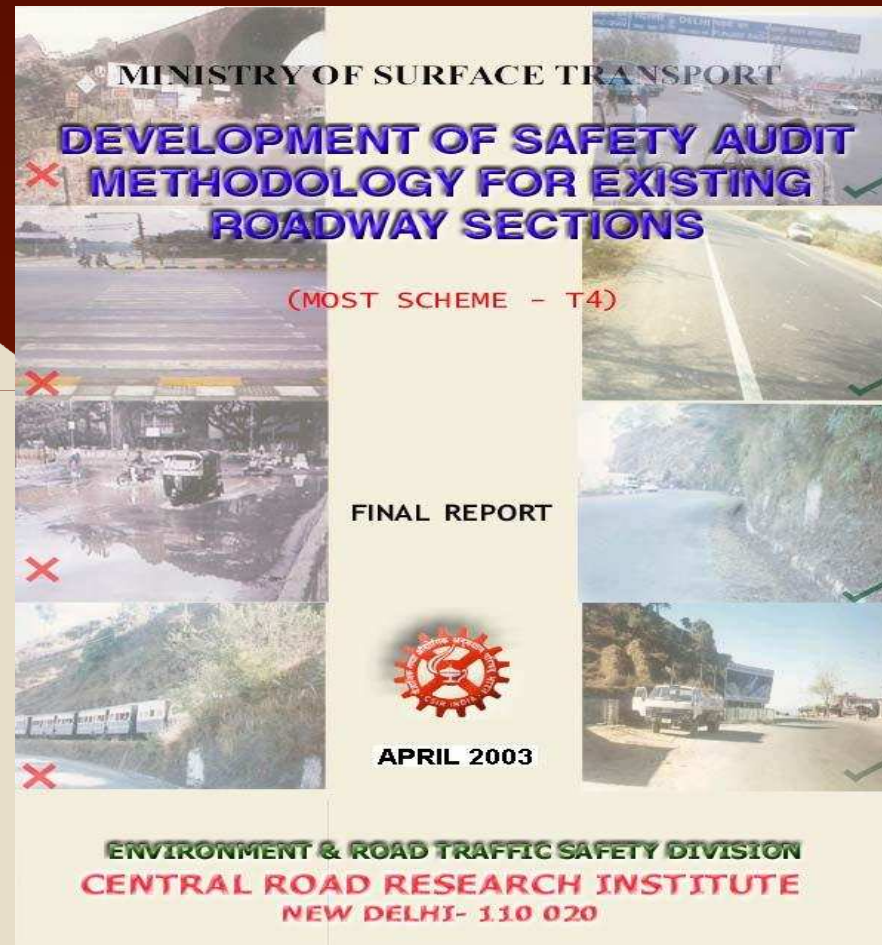
- Although RSA is much talked about in seminars and workshops in India, Road Safety Audit Policy is missing at National or State levels.
- Road Safety Audit Policy clarifies what projects are to be audited and at what stage of the project.
- Neither there is any slot for safety checks at planning/design stages nor any financial provisions for undertaking RSAs.



Delay in Producing National RSA Guidelines

➤ First RSA Guidelines were produced in 2003.

➤ RSA is revised in 2009 by CRRI. It will soon be available.



RSA MANUAL, CRRI UNDER PREPARATION, 2009

- 1 Introduction
- 2 An explanation of road safety audit
- 3 Stages of road safety audit
- 4 Road safety audit process
- 5 Salient features and principles for safer road designs
- 6 Specific parameters to be considered in the present day traffic scenario in India
- 7 Checklists
- 8 Elements of a good RSA and Measure of its Success
- 9 How You Get Road Safety Audit Started in your Organization?



Weak Road Safety Unit At National Highway Authority of India

- **Set-up for the Road Safety Unit at NHAI is weak.**
- **Either it is without proper head or there are frequent changes in the set-up.**
- **Adequately qualified or experienced staff on the subject of road safety is lacking.**
- **Similar situation exists for almost all the states of India.**



Non-Compliance of the Provision Regarding Design Safety Audit

- For BOT projects, the mandatory Safety Audit on the designs proposed by the concessionaire has been dispensed with.
- Due to political pressures, authorities are in a hurry to start the project
- This reflects the attitude among professionals that RSA can be stopped.



Apathy Towards Building Road Safety Knowledge and its widespread Dissemination

- Efforts by international lending agencies have been made to build up road safety knowledge base by producing road safety manuals.
- Manual for safety in road Design : A Guide for Highway Engineers in India was produced by Ministry in 1998 with publication of 1000 copies
- Nothing happened till 2005, when again at the instance of World Bank, a project for dissemination of manual was implemented.
- There is a total lack of commitment of Decision Makers towards road safety.



MANUAL FOR SAFETY IN ROAD DESIGN - A GUIDE FOR INDIAN HIGHWAY ENGINEERS (1998)

i. Ross Silcock,
U.K.

ii. CRRI, India

iii. TRL, U.K.

Government of India
Ministry of Surface Transport (Roads Wing)

**MANUAL FOR SAFETY IN
ROAD DESIGN**
A Guide for Indian Highway Engineers

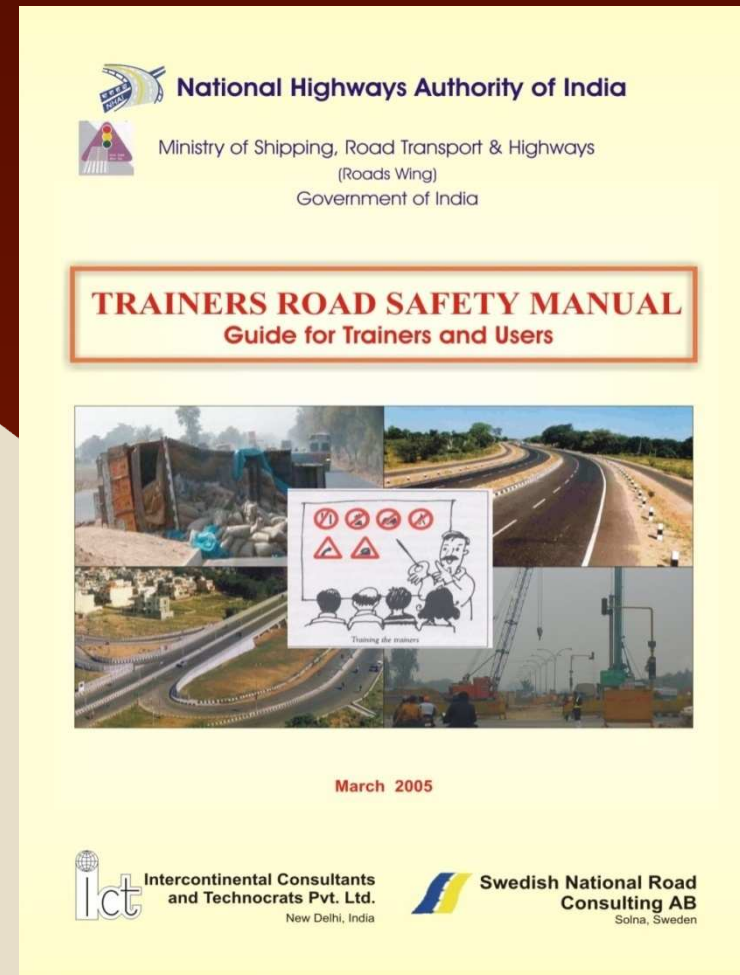


SEPTEMBER 1998



TRAINERS ROAD SAFETY MANUAL - 2005

- i. Introduction
- ii. Planning of Roads for Safety
- iii. Designing for Road Safety – Road Line Design
- iv. Designing for Road Safety – Junction Design
- v. Road Safety Audit
- vi. Safety Management of Road Networks including Construction Sites
- vii. Accident Investigation & Prevention
- viii. Countermeasures at Hazardous Locations
- ix. Non-Engineering Measures for Road Safety



Conclusions and Recommendations

- RSA as a Safety tool is not utilized in a systematic way.
- No formal commitment to use safety audits
- There is a need to make highway professionals aware and knowledgeable in making roads safer through use of RSA



- **RSA Manual / guidelines will need to be printed in large numbers.**
- **Training workshops should be organised for dissemination of safety knowledge and available literature.**
- **Highway authorities like MOSRTH, NHAI and IRC will need to commit themselves much more seriously on road safety aspects.**
- **Then only state and local authorities will start following the same.**



THANK YOU