



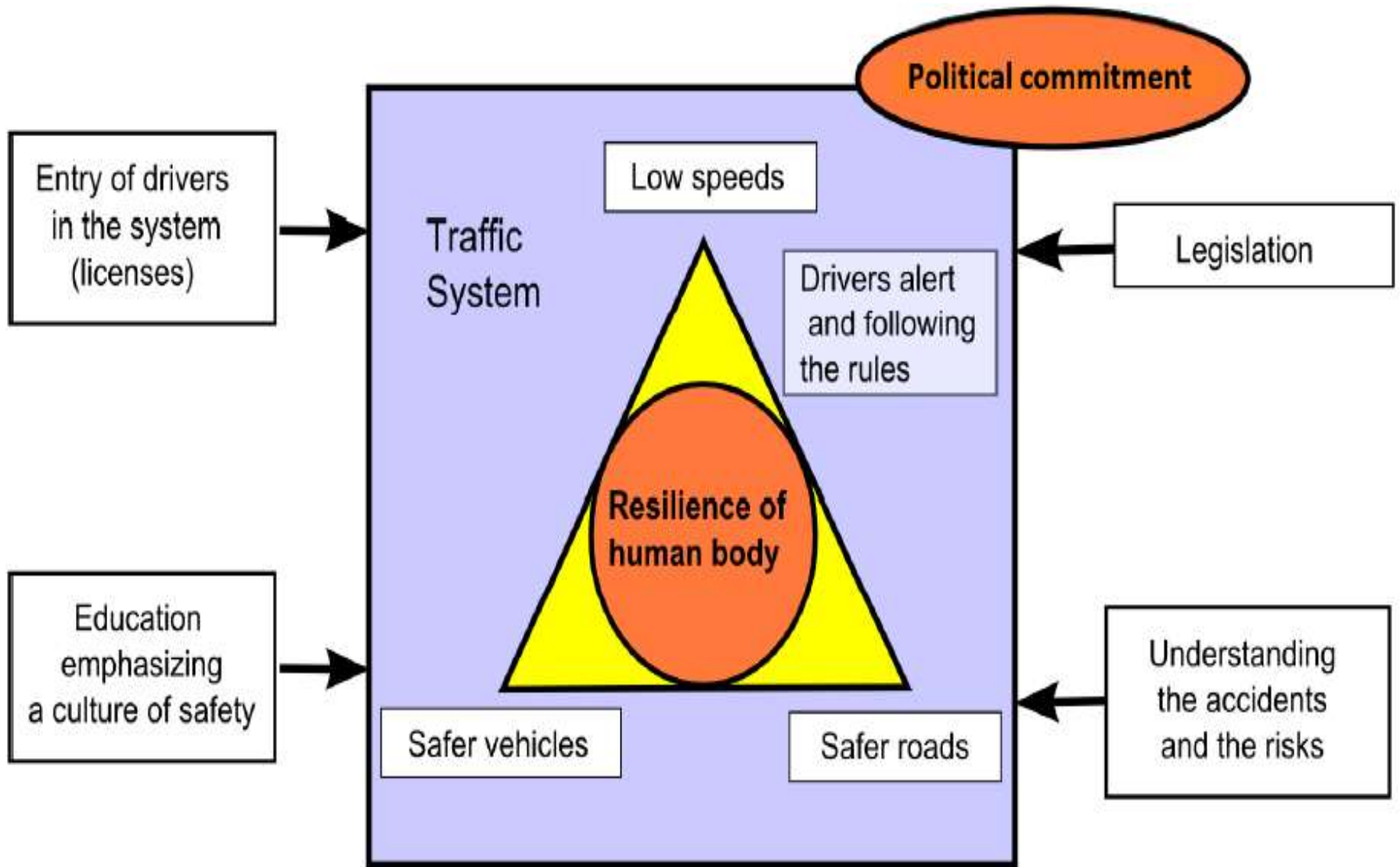
Education & Campaign as Built-in Requirements of Road Development Projects (Greenfield & Upgradation)



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Context/Background

- In cases of road development, the projects are generally along an existing alignment or along a virgin alignment. Such a project delivers the road with a **completely new character** as created or delivered through the **construction of the upgraded/refurbished road** or the **completely new road** (in case of a virgin alignment).
- A road to perform in a desired manner in an environment of existing habitations in terms of road safety outcomes, **road has to be developed with all associated features and components of the globally accepted, tested and acclaimed concept of Safe System Approach (SSA).**
- All systems and sub-systems required for ensuring overall or total safety for all road users should be planned and developed simultaneously along with the development/implementation (i.e. construction or upgradation) of the road. That is not normally done in most cases, which leads to the road sections being with serious problems of road safety.
- Globally the accepted method of road safety management in any road network has to be achieved only by safe system approach, and therefore, development of the road (upgraded or green-field) is seen as only one component of a total safe system as shown in **Figure**.



Safe System Approach

Engineering of road, Engineering of vehicles, Education and awareness, Enforcement and Emergency care

A Special Case – Bundelkhand Expressway

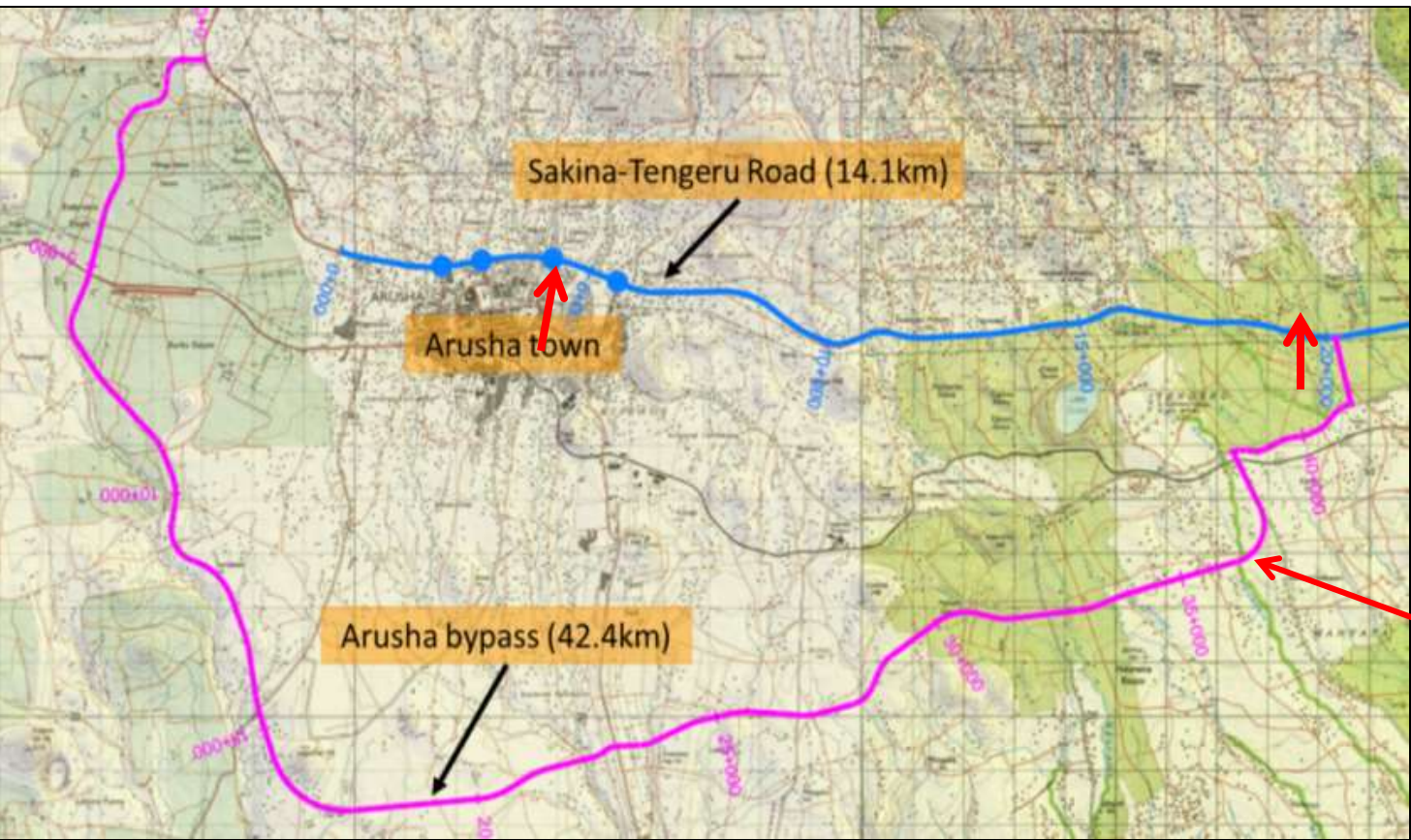
- The details of the concept of **‘safe system approach’** requires ensuring safe infrastructure (the road), safe vehicles, safe road users (by Education and Enforcement), and appropriate emergency care system as the other parts of **overall management of safety for the total system**, in addition to the institutional set up.
- In a virgin road/highway/expressway, the institutional set up necessarily gets developed as part of the implementation plan of the road/highway/ expressway.
- In case of **Bundelkhand Expressway**, it is proposed to develop all the associated **safe system elements** along with the construction of the road in parallel, to show case the concept that **road safety can be improved by safety management** actions taken in advance in the overall framework of the globally accepted Safe System Approach. These are to be available as parts of the **“mission safest expressway”**, when the expressway is opened to traffic in 2022.

Case Studies

Case Study 1

African Development Bank (AfDB) in recent years have introduced this strategy for funded projects for New (Greenfield) and Upgradation of road projects

Consultancy Services for Improvement of Road Safety, Capacity Building and Data Collection for Widening to Dual Carriageway of Sakina-Tengeru Section (14.1 Km) from Km 0+000 to 14+100 of the Multinational Arusha-Holili/Taveta-Voi Road Project & Construction of Arusha Bypass (42.4 km) to Bitumen Standard (June 2017 to October 2019)



Widening to 4-Lane Divided Highway (Upgradation)

The Tasks in the Project

- Make community residents aware that road safety should be a major community concern;
- Sensitise community residents to identify specific road safety problems faced by the community as well as their remedial measures;
- Strengthen local Ward/Village community organisations, Non-Government Organizations (NGO) and Community Based Organizations (CBO) with a role in road safety; and
- Educate community residents and the road users in safe use of the road and actions to be taken in the event of an accident.

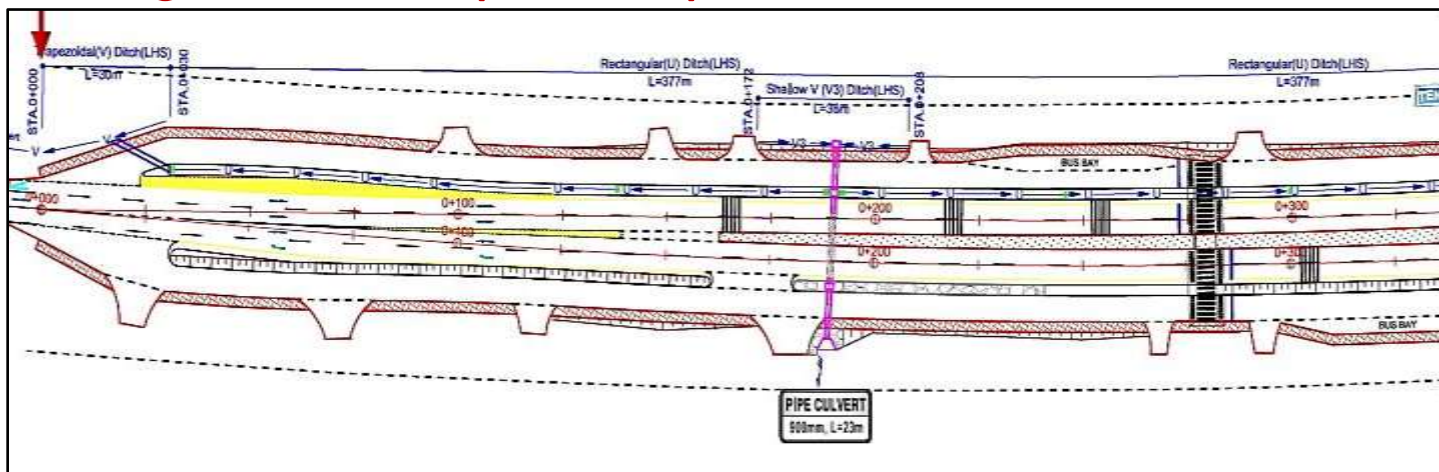
Road Safety Awareness Campaign (the Campaign) was planned to be carried out over three cycles (Cycle I, Cycle II and Cycle III)

Campaign delivery was planned and conducted for

- General road users
- School-children
- Pedestrians
- Cyclists
- Two-wheeler riders
- Car drivers
- Heavy goods vehicle drivers
- Contractor operatives (road construction sites)



Sakina-Tengeru Road (4-Lane)





Arusha Bypass
2-Lane with Paved
Shoulders (Greenfield)



**Road Safety Education
& Campaign for AfDB
Project**

Case Study 2

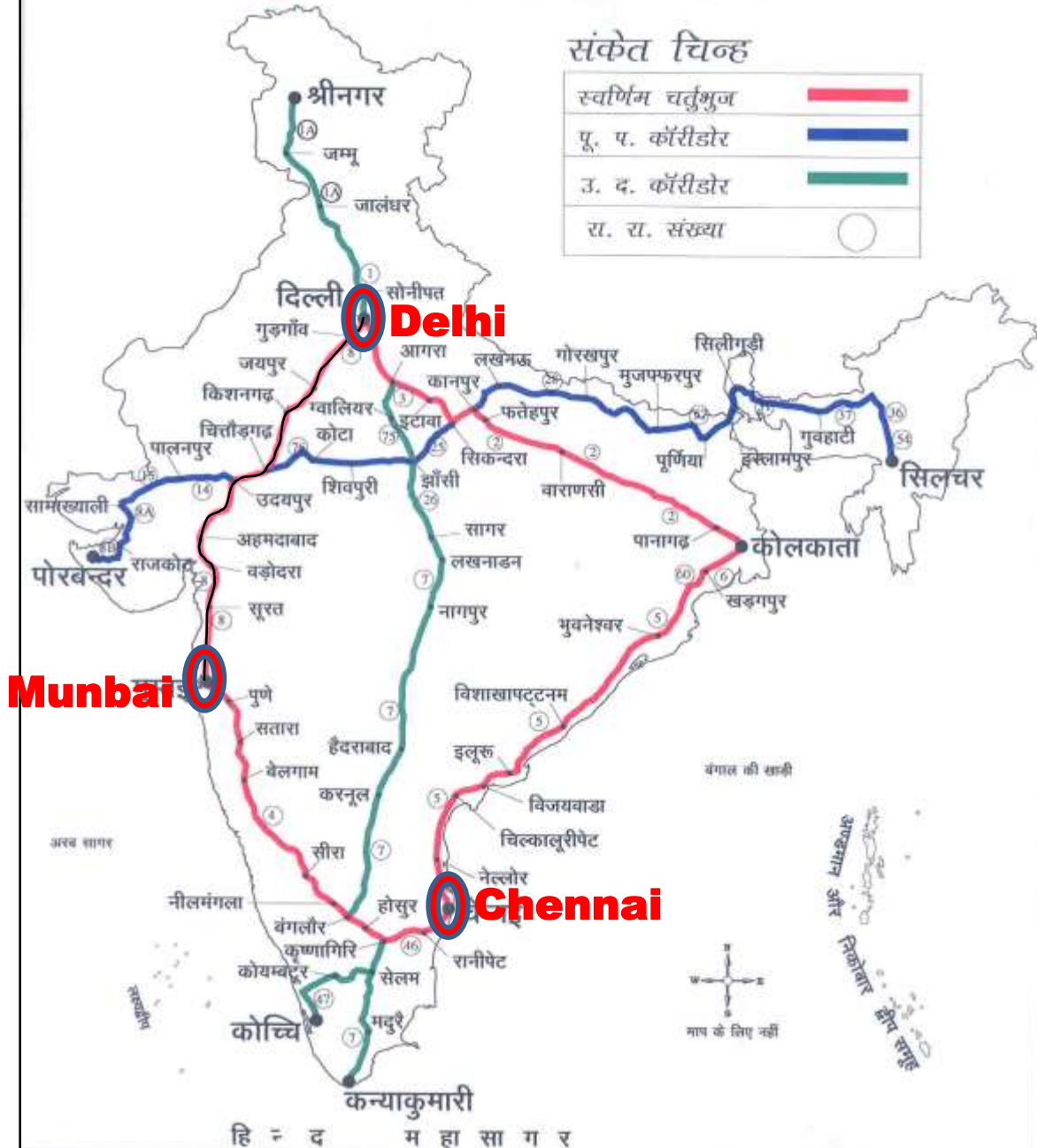
**Consultancy Services for Road Safety
(Public Education) – Grand Trunk Road
Improvement Project for Delhi - Mumbai arm
of GQ (1419 kms) & Mumbai – Chennai arm
of GQ (1290 kms) (May 2006 to May 2009)**

**World Bank Funded Project for
NHDP through National Highways
Authority of India (NHAI)**

राष्ट्रीय राजमार्ग विकास परियोजना

संकेत चिन्ह

| | |
|-------------------|---|
| स्वर्णिम चतुर्भुज |  |
| पू. प. कॉरीडोर |  |
| उ. द. कॉरीडोर |  |
| रा. रा. संख्या |  |



Project Tasks

- Make community residents aware that road safety is a major community concern;
- Encourage community residents to identify the specific road safety problems faced by the community as well as remedial measures;
- Strengthen local Non Government Organization (NGOs) and Community Based Organizations (CBOs) and their linkages to external institutions with a role in road safety; and
- Educate community residents and road users in safe use of the road and actions to be taken in the event of an accident



Delhi-Mumbai GQ Corridor

1490 kms
12 Stretches





**Actual Situation
on the Road**

Stages of Project Delivery

**Consultancy Services
for Road Safety
(Public Education)**

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graph TD; A[Consultancy Services for Road Safety (Public Education)] --> B[CAMPAIGN IMPLEMENTATION PLAN]; A --> C[PREPARATION OF TRAINING AND CAMPAIGN MATERIALS]; A --> D[TRAINING TO AWARENESS RAISERS AND CAMPAIGN DELIVERY]; A --> E[CAMPAIGN CO-ORDINATION, MONITORING AND EVALUATION];
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**CAMPAIGN
IMPLEMENTATION
PLAN**

**PREPARATION
OF TRAINING
AND CAMPAIGN
MATERIALS**

**TRAINING TO
AWARENESS
RAISERS AND
CAMPAIGN
DELIVERY**

**CAMPAIGN
CO-ORDINATION,
MONITORING
AND
EVALUATION**

Campaign Delivery Methods

- Training, orientation and motivation of Awareness Raisers
- Road crossing events for school children
- Announcement through mike
- Banners
- Posters
- Booklets
- Public Meetings
- Video Film (Local cable network)
- Interaction/Lecture PowerPoint in all the 5 languages

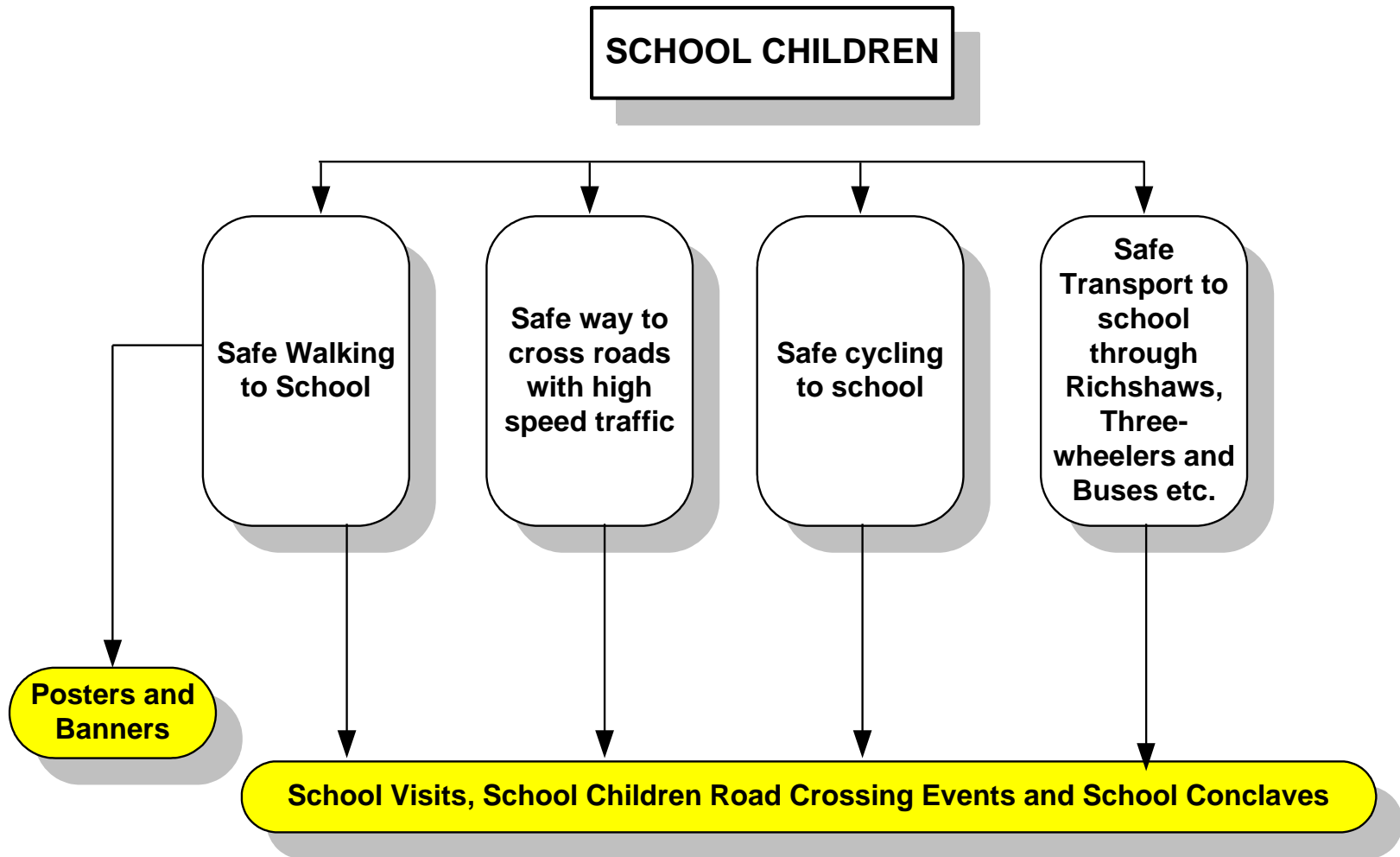
| S.No. | AR Category | Haryana | Rajasthan | Gujarat | Maharashtra | Total |
|--------------|---|---------|-----------|---------|-------------|-------------|
| 1 | Employees of the Consultants and the client | 15 | 73 | 72 | 15 | 175 |
| 2 | Member of NGOs / CBOs of Private Sector in the Project Area | 20 | 80 | 80 | 20 | 200 |
| 3 | Traffic Police | 6 | 54 | 54 | 6 | 120 |
| 4 | Health or Emergency Services | 6 | 54 | 54 | 6 | 120 |
| 5 | Teachers | 50 | 250 | 250 | 50 | 600 |
| 6 | Residents of the Project Area | 30 | 120 | 120 | 30 | 300 |
| 7 | Children from the Project Area | 100 | 400 | 400 | 100 | 1000 |
| 8 | Drivers | 40 | 160 | 160 | 40 | 400 |
| 9 | Women | 15 | 35 | 35 | 15 | 100 |
| 10 | Roadside Hawkers | 15 | 35 | 35 | 15 | 100 |
| Total | | | | | | 3115 |

Awareness Raisers Trained to continue the road safety campaign after the project is completed

Campaign/ Training in Cycle I and Campaign Delivered in Cycle II and III

| S.No. | Awareness Raisers | Number | Cycle I | Cycle II | Cycle III | Total |
|--------------|-------------------|-------------|--------------|--------------|--------------|---------------|
| | | | Jul-Jan | Feb-May | Jul-Oct | |
| 1 | Employees | 175 | 1400 | 700 | 700 | 2800 |
| 2 | NGO, CBO | 200 | 1600 | 800 | 800 | 3200 |
| 3 | Traffic Police | 120 | 960 | 480 | 480 | 1920 |
| 4 | Health | 120 | 960 | 480 | 480 | 1920 |
| 5 | Teachers | 600 | 4800 | 2400 | 2400 | 4800 |
| 6 | Residents | 300 | 2400 | 1200 | 1200 | 4800 |
| 7 | Children | 1000 | 8000 | 4000 | 4000 | 16000 |
| 8 | Drivers | 400 | 3200 | 1600 | 1600 | 6400 |
| 9 | Women | 100 | 800 | 400 | 400 | 1600 |
| 10 | Hawkers | 100 | 800 | 400 | 400 | 1600 |
| Total | | 3115 | 21200 | 12460 | 12460 | 50,000 |

Example: Training Activities with School Children



Booklet

राष्ट्रीय राजमार्गों का सुरक्षित उपयोग

जी० टी० रोड़ विकास परियोजना
सड़क सुरक्षा जनशिक्षा



Hindi -Language

राष्ट्रीय राजमार्ग बदल रहे हैं भारत का नक्शा ।
आओ इसे अपना गर्व बनायें पालन करके सड़क सुरक्षा ॥



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
जी-5&6, सेक्टर-10, द्वारका, नई दिल्ली-110075

राष्ट्रीय महामार्गांचा सुरक्षित उपयोग
जी. टी. रोड विकास परियोजना
सडक सुरक्षा जनशिक्षा



Marathi -Language

राष्ट्रीय महामार्गाची बदलणारी भारताचा नक्शा
अभिमान त्याचा वाढवून, वाहतुकीचे नियम पाळून



भारतीय राष्ट्रीय महामार्ग प्राधिकरण
जी-5&6, सेक्टर-10, द्वारका, नई दिल्ली-110075

राष्ट्रीय महामार्गांचा सुरक्षित उपयोग
जी. टी. रोड विकास परियोजना
सडक सुरक्षा जनशिक्षा



Kannad -Language

राष्ट्रीय महामार्गाची बदलणारी भारताचा नक्शा
अभिमान त्याचा वाढवून, वाहतुकीचे नियम पाळून



भारतीय राष्ट्रीय महामार्ग प्राधिकरण
जी-5&6, सेक्टर-10, द्वारका, नई दिल्ली-110075

राष्ट्रीय पोरीमार्गांनी सवामत ઉપયોગ
જી.ટી. રોડ વિકાસ પરિયોજના
માર્ગ સલામતી અભિક્ષા



Gujarati -Language

રાષ્ટ્રીય પોરીમાર્ગો ભારતનો નવો નકશો રચે છે.
માર્ગ સલામતીનું પાલન કરીને આપણે તેને આપણું ગૌરવ બનાવીએ.



ભારતીય રાષ્ટ્રીય પોરીમાર્ગ પ્રાધિકરણ
જી-5, સેક્ટર-10, દ્વારકા, નઈ દિલ્લી-110075

தேசிய நெடுஞ்சாலைகளில் பாதுகாப்பான
உபயோகம்
GT வீதம் கட்டுவதற்கு திட்டம்
சாலை பாதுகாப்பு முறை பின்பற்ற வேண்டும்



Tamil-Language

தேசிய நெடுஞ்சாலைகள் இந்தியா அந்திய நகசாலை
கட்டுவதற்கு திட்டம் கட்டுவதற்கு திட்டம்
சாலை பாதுகாப்பு முறை பின்பற்ற வேண்டும்



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கட்டுவதற்கு திட்டம் கட்டுவதற்கு திட்டம்
சாலை பாதுகாப்பு முறை பின்பற்ற வேண்டும்

Posters

डाईविंग एक बड़ी जिम्मेदारी

सुरक्षा का एक बड़ा हिस्सा है।



सुरक्षा का एक बड़ा हिस्सा है।

सुरक्षा का एक बड़ा हिस्सा है।

सुरक्षा का एक बड़ा हिस्सा है।

Hindi -Language

સુરક્ષા એક મોટી જવાબદારી

સુરક્ષા એક મોટી જવાબદારી



સુરક્ષા એક મોટી જવાબદારી

સુરક્ષા એક મોટી જવાબદારી

સુરક્ષા એક મોટી જવાબદારી

Gujarati -Language

वाहन चालवणे ही एक मोठी जबाबदारी आहे

दुचाकी वाहन केवळ दोघांसाठीच आहे



हेल्मेट आणि सीट-बेल्ट चा उपयोग - आपले प्राण वाचवू शकतात



मोबाईल फोनवर बोलताना वाहन चालवण्याकडे दुर्लक्ष होऊ शकते वाहन चालवण्यावरच लक्ष केंद्रित करा.

रस्ता सुरक्षा जबाबदारी

Marathi -Language

भारतीय राष्ट्रीय महामार्ग प्राधिकरण
जी-5-8, सेक्टर 10, द्वारका, नवी दिल्ली 110075

इन्टरनॅशनल कन्सलटन्स ग्रॅन्ड टेक्नोक्रेटल् प्रॉपर्टी लिमिटेड
ए-8, ग्रीन पार्क, नवी दिल्ली 110016

ವಾಹನ ಸವಾರಿ ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ



ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

Kannad -Language

**ವಾಹನದ ಓட்டுವುದು ಉತ್ತಮ ಒಂದು
ಪ್ರಿಯ ಜವಾಬ್ದಾರಿಯಾಗಿದೆ**

ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ



ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

ಒಂದು ದೊಡ್ಡ ಜವಾಬ್ದಾರಿ

Tamil -Language

Banners



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
सड़क सुरक्षा अभियान
राष्ट्रीय राजमार्ग बदल रहे हैं भारत का नक्शा
आओ इसे अपना गर्व बनायें पालन करके सड़क सुरक्षा

इन्टर कॉन्टिनेन्टल कन्सल्टन्स प्राइवेट लिमिटेड
जे. पी. एस. जसोशिएट्स प्राइवेट लिमिटेड

Hindi -Language



ભારતીય રાષ્ટ્રીય ધોરીમાર્ગ પ્રાધિકરણ
માર્ગ સલામતી અભિયાન
જી.ટી. રોડ વિકાસ પરિયોજના - માર્ગ સલામતી જનશિક્ષણ
સુવર્ણ ચતુર્ભુજ નો દિહી - મુમ્બઈ ખંડ

ઈન્ટરકોન્ટિનેન્ટલ કન્સલ્ટન્સ પ્રાઇવેટ લિમિટેડ
જી.પી.એસ. એસોસિએટ્સ પ્રાઇવેટ લિમિટેડ

Gujarati -Language



भारतीय राष्ट्रीय महामार्ग प्राधिकरण
रस्ता सुरक्षा अभियान
जी. टी. रोड विकास परियोजना रस्ता सुरक्षा - जनजागृती
स्वर्णिम चतुर्भुज चा दिल्ली - मुंबई खण्ड

इन्टर कॉन्टिनेन्टल कन्सल्टन्स जॉयंट टेक्नॉलॉजिस्ट्स प्रायव्हेट लिमिटेड
जे. पी. एस. जसोशिएट्स प्रायव्हेट लिमिटेड

Marathi -Language



ರಾಷ್ಟ್ರೀಯ ಹೆದ್ದಾರಿ ಪ್ರಾಧಿಕಾರ ಧಾರಣೆ
ರಸ್ತೆ ಸುರಕ್ಷತಾ ಅಭಿಯಾನ
ಜಿ.ಟಿ ರಸ್ತೆ ಅಭಿವೃದ್ಧಿ ಯೋಜನೆ - ರಸ್ತೆ ಸುರಕ್ಷತೆ (ಸಾರ್ವಜನಿಕ ಶಿಕ್ಷಣ)
ಮುಂಬಯಿ ಸುರ್ವಣ ಚತುರ್ಭುಜದ ಚೆನ್ನೈ ಅಂಗ

ಇನ್ಟರ್ಕಾನ್ಟಿನ್ಯೆಂಟಲ್ ಕನ್ಸಲ್ಟನ್ಸ್ ಪ್ರಾઇವೇಟ್ ಲಿಮಿಟೆಡ್
ಜಿ.ಪಿ.ಎಸ್. ಅಸೋಸಿಯೇಟ್ಸ್ ಪ್ರಾઇವೇಟ್ ಲಿಮಿಟೆಡ್

Kannad -Language

Tamil-Language



தேசிய நெடுஞ்சாலைகள் இந்திய அதிகார அமைப்பு
சாலைப் பாதுகாப்புப் பிரசாரம்
ஜி 19 சாலை மேம்பாட்டுத் திட்டம் சாலைப் பாதுகாப்பு (மக்கள் கல்வி)
மும்பை - சென்னை தங்க நாற்கர சாலையின் கரம்

இண்டர்காண்டினைண்டல் கன்சல்டன்ட்ஸ் & டெக்னோகிராட்ஸ் பிரைவேட் லிமிடெட்
JPS அசோசியேட்ஸ் பிரைவேட் லிமிடெட்



Campaign Delivery Examples

Summing Up.... (1/2)

Provide all elements of safe system approach for road safety while developing/upgrading the road

- **E**ngineering of roads
- **E**ngineering of vehicles
- **E**ducation & Campaign
- **E**nforcement (24x7 enforcement)
- **E**mergency care

Together they provide the results of a Safe System

Summing Up.... (2/2)

Remember...

- **Education/Awareness Campaign & Training enhances required knowledge & understanding of safe behaviours**
- **But, sustainable behavioural shift needs simultaneous 'enforcement' in case of road traffic**

Namaste



Thank You